

A SYSTEMS INQUIRY INTO ORGANIZATIONAL LEARNING
FOR HIGHER EDUCATION

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Abstract

This study took an applied systems design approach to investigating social organizations in order to develop a synthetic perspective, one that supports pragmatism's focus on consequent phenomena. As a case study of reaffirmation processes for four 4-year institutions and their accreditor, WSCUC, it looked for evidence of organizational learning in the related higher education systems of institutions and regional accrediting agencies. It used written documents as evidence of the extended discourse that is the reaffirmation of accreditation process. The documents were analyzed from a set of three perspectives in an effort to build a fuller understanding of the organizations.

A structural analysis perspective looked for structural qualities within the discourse and its elements. A categorical analysis perspective considered the evidence of organizational learning that could be found by reviewing the set of documents produced by both WSCUC and the institution as part of the reaffirmation process. The review applied categorical frames adapted from the core strategies identified in Kezar and Eckel (2002b), the five disciplines proposed by Senge (2006), and the six activities identified in Dill (1999). It looked for relationships and interdependencies developed in the content within and between documents. A narrative analysis perspective considered each institution and its relationship with WSCUC through a set of six systemic lenses expanded from the three proposed by Banathy (1995).

Each perspective yielded insight into how institutions of higher education reflect on and describe an intentional pursuit of organizational sustainability and improvement, as well as how both institutions and their accreditor use the reaffirmation process to understand and support their own organizational learning. This study supported the position that multiple perspectives can provide better, though not comprehensive, understanding of a system, and that a system can apply these perspectives to design for its intended future.

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CHAPTER 1: INTRODUCTION

Prologue to Systems

Suppose you are studying language. You might be trying to learn a language in order to use it, you might be studying it in order to describe it, or you might be studying language from a larger perspective, maybe how languages are alike and different, how they change over time, how people learn language, or how we use language to communicate. Maybe you're looking only at the set of sounds that a particular language uses, or the whole set of sounds from all human languages: phonetics and phonology, the sound systems in language. Maybe you're studying syntax, or how a language orders words into sentences, or more generally how languages define word order: the systems of phrasal structure. Or maybe you're interested in the systems we use to make meaning through language, called semantics within linguistics and semiotics or semiology in some other disciplines. Each study is of a system, and language has lots of systems. The systems all work together, and they affect each other. Language is a system of systems – it's complex, but it's how we communicate.

Suppose you're studying architecture. You might be interested in how a building stands or structurally fails, or what buildings look like in one part of the world in a particular time period, or what materials we've used and what materials we're developing, or how buildings relate to their sites, their climates and each other. Or maybe you're studying how people use space, how the space responds to their needs, and what makes a space good or bad for its purposes as understood by its users. Or you might be studying how we construct our environment, and make towns and cities, and how you move within and beyond the environments we've built. Maybe you're studying why some forms and materials delight us, or how

certain structures and projects manifest power. Architecture is a system of systems – it’s complex, and it’s how we understand, design, build, critique, and reinvent the environment we inhabit.

We study complex systems like these to make sense of our world and how we experience it, and to offer new ideas to make it better. We observe and find expected and unexpected relationships, we learn from connecting systems and relationships to other systems and relationships. Proposing connections is a process, and sometimes this kind of process helps us take new perspectives from which to observe. This study undertook this kind of systems analysis.

Background

The desire to learn, to understand, and to become is a human quality, and as humans we undertake the learning, understanding and becoming both as individuals and collectively. Partly as a response to that desire and endeavor, our societies have developed organized education as a social enterprise with expectations and institutionalized models that reflect the society’s values. Zooming in on the here and now, this project focused on higher education in the United States in the early 21st century. First, relevant terms are introduced and broadly explained.

Key Terms

The terms below are used in multiple ways in different contexts. They are explained here in an attempt to provide a generalized context from which to start. Throughout this work I try to use these terms as consistently as possible, and make note of deviations.

Higher education. Like “art,” science,” “government,” and so many other human endeavors, “higher education” can refer to the overall idea, the social

practice or expectation, the set of all the institutions and organizations that provide higher education, the individual or group engagement in or achievement of post-secondary learning, and other ideas and entities as well. In the context of this document, I use it to refer to the social enterprise or conceptual structure that supports the pursuit of post-secondary learning. Our society places a positive value on higher education because through it, students acquire the knowledge, skills and dispositions to help society succeed.

Institution of higher education. In this study, an institution of higher education (IHE) is a college or university or similar formalized social organization that provides structured post-secondary learning experiences to students in support of the goal of higher education, the social enterprise.

Organizational learning. This concept proffers that an organization can learn not just as a set of individuals learning independently but as a group or entity or system (see system below). This also refers to the processes and principles that are believed to be the identifying qualities of this kind of learning. Organizational learning, according to Garvin (1993), requires acquiring and translating new knowledge or information into actions, processes, or behaviors. Organizational learning can be productive or have negative consequences (Argyris & Schön, 1996); productive learning is posited as necessary for sustaining an organization through internal changes and in response to environmental changes. A term that informs this study and that arises from the ongoing developing of organizational learning theories is **sensemaking**. At an institutional level, sensemaking arises when members seek organizational information, define its meaning for the organization, then incorporate and act from the consensus-determined meaning (Kezar & Eckel, 2002b). Sensemaking is related to mental models (Senge, 2006),

incorporating intentional change in the mental models that help an organization identify itself and its purposes.

Learning organization. This describes an organization that demonstrates intentional organizational learning. It has been studied and defined by several organizational theorists/practitioners, including Argyris and Schön (1996), Garvin (1993), and Senge (2000). The proposed qualities, principles, and processes of a learning organization vary across theories, but most include team communication and collaboration, intentional inquiry and purpose-driven change.

Systems theory. By way of an explanation rather than a definition, let us start from the premise that systems theory is a way of making sense of how things are and proposing how we make change. It is an inter- or trans-disciplinary endeavor. It stands in contrast to a reductionist, deterministic view that things are best understood by taking them apart to their smallest elements, and then figuring out how they go back together, where the only relationship between parts and subsystems is cause-and-effect (Ackoff, 1979). It starts from the recognition that the whole is greater than the sum of its parts (see emergence below), that systems are made up of systems and also exist within larger systems (environment), and that social systems (open living systems with humans in them) have purpose and intention and are capable of changing their purpose and intention.

Systems concepts. A set of fundamental systems concepts might include system, element or component, environment, relationship, purpose, boundary, and emergence. A **system** might be characterized as a set of interrelated elements or components, with a purpose, function, or goal, and with boundaries. Because the system as a whole includes the relationships among the elements, the boundaries, and the purpose, and because it exists in an environment which is itself a system and to which it may respond, it may have **emergence**, the property of spontaneous

self-organizing and changing. In organizations, or systems with people, self-organizing may be creative, intentional, and oriented toward a desired future state. **Elements or components** will vary and a single system may have many different kinds. They might be entities, subsystems, materials, flows, processes, or events; this is not an exhaustive list. Within a system, the relationships between elements contribute to emergence, or the dynamic quality of systems. **Environment** is the concept that every system exists in and may be subject to forces coming from its context(s). The concept of **boundary** suggests that some elements are within the system and others are outside or beyond the system and not part of it. Boundaries may be permeable and malleable, and they may be temporal, spatial, or of another nature.

Systems thinking. Since systems are greater than the sum of their parts, they lose essential properties when taken apart and analyzed. Ackoff (1979) gives us a starting point for understanding systems thinking:

Systems thinking has produced the doctrine of expansionism, which asserts, first, that ultimate understanding of anything is an ideal that can never be attained but can be continuously approached; and second, that understanding, in contrast to knowledge, flows from larger to smaller systems; not, as analysis assumes, from smaller to larger. (p. 96)

Systems thinking is a practice of inquiry toward understanding, collaborating, and planning. **Applied systems thinking** is the practice extended into designing transformative system change. In discussing the complexity of systems and their interactions, Ackoff (1979) defines **mess** as “dynamic situations that consist of complex systems of problems that interact with each other” (p. 99). A current popular term that covers similar territory is “wicked problem.”

Systems theories. These are numerous, interdisciplinary, sometimes in conflict with each other, but they share the insight that grappling with systemic complexity offers greater possibility for leveraging effective change than

reductionist or purely mechanistic approaches. Hammond (2002, 2003, 2008, 2013) traces the three main arcs of systems theories in the US in the mid-twentieth century: General Systems Theory, Cybernetics, and System Dynamics. As systems research and practice has found application and extension in organization studies, including organizational communication, organization development, and organizational change theories, new theoretical perspectives such as Critical Systems Theory, 4i Organizational Learning Levels, Communities of Practice and other practice-based approaches, and Internal Social Networks (Dee & Leišytė, 2016) have emerged and continue to develop.

The Place of Colleges, Universities, and Higher Education within the US

For the most part, higher education in the United States takes place in the context of colleges and universities. The set of American colleges and universities is often spoken of as interchangeable with higher education. I will try to maintain distinctions between higher education (the social enterprise) on the one hand and colleges and universities (the set of institutions providing post-secondary learning in response to the social enterprise) on the other.

Institutional diversity. As a working premise, let us posit that higher education, as the social enterprise that supports post-secondary learning, has as its goal the development of students into societal members who support the society's success through their intellectual, civic, economic, and cultural contributions. Colleges and universities manifest the higher education goal in distinctive ways. American institutions have been categorized since 1973 by the Carnegie Classification framework, which serves to “recogniz[e] and describ[e] institutional diversity” (The Carnegie Classification of Institutions of Higher Education, n.d.). The basic framework implicitly recognizes mission distinctiveness in its broad

categories that include doctoral research institutions, baccalaureate colleges with an arts and science focus or more diverse offerings, associate's colleges identified as having a transfer or career and technical emphasis, and special focus categories such as faith-related, engineering, medical, law, and arts, music and design.

Even as we categorize colleges and universities primarily by the way they address the higher education goal, we glimpse another set of purposes. Research as an activity within an institution is not simply a convenient way to prepare students, doctoral or otherwise, to become researchers. Colleges and universities have missions that include and extend beyond the higher education goal. For example, a university's mission may include supporting faculty and researchers to pursue ideas with no immediate practical applications (Labaree, 2017). The pursuit and production of knowledge is a distinct goal from the dissemination of knowledge. Likewise, community service has proven to be a powerful educational experience for students, but it is also, for many colleges and universities, an institutional commitment to the community. Many institutions have formalized faculty responsibilities that include community engagement or service (Birnbaum, 1988; Ward, 2003).

Clark Kerr offered a long-lived analysis of the multiple missions of colleges and universities in his 1963 lectures at Harvard, published later that year as *The Uses of the University* (Kerr, 2001). He spoke and wrote of the multiversity as a set of communities with a set of sometimes-conflicting purposes. He recognized this institutional model as a system of multiple systems.

Decentralized structure. Higher education as an American social enterprise differs from its counterparts in many other nations in that it is decentralized; it is not controlled by the national government, and its constituent institutions operate independently of each other. Colleges and universities may be

private or public; if private, they may be organized as non-profit or for-profit, secular or faith-based entities. Public colleges and universities are state-operated and -funded. Individual institutions are controlled by their governing boards and chartered by and subject to state regulation. Colleges and universities have obligations to federal entities only through voluntary participation in federal funding of student aid, research, and other institutional grants and programs. If they choose to be accredited in order to receive federal student aid and other federal funding, and nearly all do, their performance is evaluated on standards set by their regional or national accrediting commission. The social enterprise of higher education is thus manifested by a set of institutional types with differing governing structures.

Mission shift. As colleges and universities aim to meet the generalized higher education goal proposed above, they have also responded to changing societal expectations regarding who the students being developed are. Labaree (2017), following Trow (1988, 2000), traced the expectation shift from colonial and early federal sectarian institutions offering training and education for young men from leading families to education for the mass market as private institutions multiplied, state institutions were launched, and college provided upward mobility; to a broad national expectation of universal access to higher learning with state support and federal aid.

Colleges and universities also respond to societal expectations regarding preparation of the workforce. While there is a clear connection between educational achievement and economic strength (an individual's and a society's) (Farish, 2018), we might recognize the distinction between imagining only an abstract component of an economic engine (workforce) as the product of higher education rather than emphasizing individuals prepared to contribute to their

communities and economies with future-oriented knowledge, skills, and critical dispositions. Both employment preparation perspectives, the instrumental and the humanistic, include calls for increased postsecondary preparation for technologically advanced work. Institutions devote increasing resources and programming to connecting students with potential employers (Blanding, 2017) and connecting industries as stakeholders with their schools and departments. As the higher education goal shifts to reflect societal expectations, responsive IHEs adapt their missions.

Market-responsive models. Working from the premise that higher education is a system for developing people who will make valuable contributions to their society, we see that the Carnegie Classification is an effort to make sense of the diverse structures and missions of American institutions of higher education. American foundational principles, including democracy, capitalism, and the protection of individual rights, have produced a context in which institutions respond to market forces and compete to serve potential students (Labaree, 2017). Labaree (2017) identified America's early higher education institutions as having qualities that allowed them to grow with the nation's growth: flexibility, a responsiveness to consumers, and entrepreneurial agility. He also described higher education's primary original goals as promoting sectarian values, increasing property values, and building prestige for the community; he explicitly stated that quality higher learning was not on this list. As the nation grew and tested its principles, the duality of the system of economic perspective (capitalism) and the system of government (democracy) enabled multiple models of higher education institutions to proliferate, co-exist and compete. Labaree proposed that educational quality ultimately increased because the early organizing principles

allowed the system to thrive in emerging competitive conditions: the college-going public as well as civic interests required it.

The current American higher education landscape features public, private non-profit, and corporate and proprietary for-profit institutions, ranging from small to large across the models. Diverse modes of pedagogical delivery (e.g., in-person, online synchronous and asynchronous, hybrid, self-paced) and new ways of determining academic credit (e.g., competency-based assessment, credit for prior learning, stacked badges) contribute to an expanding set of educational models. The set also includes a wide range of perceived quality of the educational model and experience, from elite to universal access, and from rigorous to minimal performance standards, with no implied map from one range to the other.

Current Perspectives on Change in Higher Education and Its Institutions

The previous section proposed that higher education is a social enterprise, an organized response to the need to prepare members to make valued contributions to their society. The institutions (colleges and universities) that take on this goal as mission do so in a wide variety of ways. They may also have additional explicit missions, for example the production of knowledge and other cultural artifacts; service to community; and, in the case of for-profit institutions, making a profit.

The 20th century¹ was a time of immense and precipitous change, in which the United States rose to become an international leader in nearly all measures of power and influence. Institutions of higher education in the US both responded to

¹ The author humbly acknowledges that a single paragraph is an inadequate thumbnail sketch of the impact of American endeavors in the 20th century.

and helped drive developments in scientific understanding, technology, economic models, political enterprise, and social and cultural movements. The social enterprise of higher education also firmly shifted in the expectations it was meeting, from providing postsecondary education as an add-on preparation for the few who had the resources to engage, to providing postsecondary education for the masses. Higher education continues to evolve to address a shift in the economic perspective that the new normal baseline for preparation for the workforce involves some postsecondary education or training (Farish, 2018; Strada Education Network, 2018).

The emerging dominance of a view that holds that “[a] competitive world requires a competitive marketplace of expertise, for only good markets can make for good democracy” (Webber, 2018, p. 12) led to the ubiquity of economic metaphors across increasingly globalized sectors of human activity, including but certainly not limited to science, technology, politics, the arts, and education. Within an economic metaphor, colleges and universities added value to U.S. influence around the globe, directly supporting American control of technological and scientific industries (Farish, 2018).

The techno-economic metaphor for higher education drives current crisis-based conversations, calling for lower costs for consumers (students), better return-on-investment (gainful employment), less federal spending and more uniform control, greater efficiencies in production (using fewer resources to yield more education), and better-educated graduates (Bernstein, 2012; Bruner, 2014; Merisotis, 2015). It is worth noting that, for the most part, these are critiques of how IHEs provide education. Robert Archibald, co-author with David Feldman of *Why Does College Cost So Much?*, observed that “Everyone has three objectives for higher education: Lower tuition, higher quality, and less government subsidies.

The unfortunate truth is that we can have any two of these, but we can't have all three" (Leonhardt, 2011, para. 25). In their book, the academic economists Archibald and Feldman compellingly argue that colleges and universities cost so much because of interdependent systems acting over time within the American free market model that increase the cost of highly educated personal services above cost increases in goods produced (Archibald & Feldman, 2011). Their systems analysis of cost increases in the American higher education sector demonstrates the economic complexity of the college or university and similar organizations that depend on a highly educated human resource delivering a personal service.

The discourse within IHEs also has a strong focus on change, some of it in direct response to external criticism, and some as an intentional effort to look ahead and be prepared for shifts on multiple fronts. Gumpert (2000) identified a trend that is replacing the metaphor of higher education as social institution (what we have been calling a social enterprise or system) with the techno-economic metaphor of higher education as industry. The three forces that together have cemented the metaphor shift include academic management adapting business models of control that reduce faculty participation in deciding purposive organizational change, the redefining of the student as a consumer of a product, and the stratification of disciplines within the academy based on externally driven values on types of knowledge and its usefulness in the market (Gumpert, 2000). Her recognition of interrelated and interdependent social systems, and her call to identify unintended consequences and reflect for intentional action, align with an applied systems approach to higher education inquiry.

The two major higher education media publications, *The Chronicle of Higher Education* (Chronicle) and *Inside Higher Ed* (InsideHE), cover the variety

of change initiatives across the sector nationally. Change imperative headlines such as “Enough ‘Do More With Less.’ It’s Time for Colleges to Find Actual Efficiencies” (Carlson, 2018) and “How higher ed has to change to remain relevant in the future” (Cavanaugh, 2018) are common. Both publications also prepare or commission reports and compilations with titles such as *The Future of Learning: How Colleges Can Transform the Educational Experience* (Chronicle, 2018), *2026 The Decade Ahead: The Seismic Shifts Transforming the Future of Higher Education* (Chronicle, 2016) and *Making Higher Ed More Efficient and Effective* (InsideHE, 2017).

The change discourse addresses whether and how colleges and universities are dealing with student demographic changes (fewer high school graduates, coming from more diverse backgrounds and preparations; adult learners) (Farish, 2018; Merisotis, 2015; Trow, 1988), continuing developments in information technologies (affecting access, mode of delivery, and expectations) (Tierney & Lanford, 2016; Trow, 2000), and pedagogical changes (active learning, dealing with shifting generational expectations about learning experiences) (Cavanaugh, 2018). It also covers funding changes (lower state allocations, a more competitive environment for finding donors) (Bernstein, 2012), changing outcomes expectations (skills or content, workplace readiness, academic outcomes framed for employability) (Farish, 2018; Gallup, 2017), and social media communication opportunities and risks (Kidd, 2016).

The calls to revise or reform have elicited organizational change efforts, and colleges and universities are not immune to emerging trends in organizational management (Birnbaum, 2000; McClure, 2016). Because IHEs respond to theoretical and applied organizational theories, a brief overview is presented of

two approaches that inform this inquiry: organizational learning and systems theory.

Understanding Organizations: Change and Learning

Hoover and Harder (2015) reviewed dominant approaches to organizational change, especially change toward sustainability, in IHEs. They noted that models for change tended to promote strategies for successful change but did not necessarily describe how organizational change occurs. Organizational change in a college or university is challenging because of its loosely coupled elements (Birnbaum, 1988), its competing subcultures and their conflicting interests (Kerr, 2001), and its “extreme organizational complexity” and “operational opacity” (Labaree, 2017, p. 181). The complexity of IHEs and their need to respond to environmental changes (society’s expectations, technological advances, financial challenges, etc.) led to an interest in organizational learning as a change model for the academic institution.

Casey (2012) located the focus on organizations and learning as arising in workers’ rights, including their continued education and skill development, in the early 20th century. She noted a renewed interest in organizational learning in the 70s, based in rational economic theories about how firms work. The major organizational learning approaches of Argyris and Schön’s (1978) *Organizational Learning: A Theory of Action Perspective* and Senge’s 1990s work on learning organizations can be traced to the Cyert and March (1963) behavioral theory of the firm (Casey, 2012). Cyert and March were in turn influenced by their Carnegie Institute of Technology colleague, Herbert Simon, an early social systems scientist, who prepared the foundation for much of this work through his interest

in decision-making and his behavioral model of rational choice (Shafritz, Ott, & Jang, 2011).

In studying organizational learning, Argyris and Schön (1996) developed a theory of action that “focuses on the problem of creating conditions for collaborative inquiry in which people in organizations function as co-researchers rather than merely as subjects” (p. 50). They identified productive, as opposed to non-productive or destructive, organizational learning as a goal of intentional organizational change, and described single- and double-loop learning processes, where the former corrects an action or process but leaves values unchanged, and the latter results in changes in values and strategies. They also described defensive routines that inhibit organizational learning and intervention activities that promote productive learning (Argyris & Schön, 1996). Their work drew on Gregory Bateson’s cybernetics-based theory of learning (Hammond, 2013).

Senge’s learning organization approach emerged from his work in system dynamics for corporate environments at MIT’s Sloan School of Management. He proposed that learning organizations, as an ideal type of organization, practice five disciplines:

- developing rigorous and principled self-discipline and reflection (personal mastery);
- recognizing biases, predispositions, assumptions, or blind spots in one’s own and others’ worldview (mental models);
- aiming for excellence and honoring collaborative achievement (shared vision);
- communicating for intentional, multi-way feedback and active engagement (team learning); and

- recognizing interdependencies and networks and acting from that knowledge (systems thinking). (Senge, 2006).

Hammond (2013) noted that Senge's book, *The Fifth Discipline*, originally published in 1990, has made *systems thinking* a popular term and familiar concept.

Understanding Organizations: Systems Theory

Bertalanffy (1972) defined a system as "A set of elements standing in interrelation among themselves and with the environment" (p. 417). Hammond (2002, 2013) outlined the origins of systems theory and described the main developments within systems theory, including general systems theory, cybernetics, system dynamics, and systems analysis/operations research. Systems theory emphasizes interconnectedness, interdependency and organizing relations as aspects of the nature of systems (Hammond, 2008). It observes, following the Aristotelian, holistic view, that a system is greater than the mere sum of its parts because of the complexity associated with the relations (Bertalanffy, 1972).

Hammond (2008) called this the concept of emergence, and identified its centrality in systems approaches. Systems theory focuses on relationships across and within scales, including crucially the relationships between (a) elements or components (which may themselves be systems) within a system; (b) a system and its environment or context; and (c) systems themselves. An important influence of systems theory on organization studies came from Bertalanffy's insight that living organisms (later extended to organizations) are open systems: evolving, self-organizing and purposeful, capable of creative action and spontaneity (Hammond, 2013).

Kast and Rosenzweig (1972) described the widespread application of systems theory in organization management theory, and noted that general systems theory (GST) concepts would often be introduced but only rarely integrated into a

systemic analysis. They described this as a partial systems approach rather than a fully developed systems model. They distinguished the social organization from an organism in identifying “purposeful elements” as necessary components of social organizations (Kast & Rosenzweig, 1972, p. 453). They also recognized that much of what we are willing to call systems thinking is actually subsystems thinking arising from the convenient partial systems view adopted in a discipline or for the sake of “relative certainty.”

Cybernetics as a systems approach focuses on information processes, including feedback loops, as defining and controlling flows (inputs and outputs) within social organizations (Hammond, 2013). Birnbaum (1988) emphasized this systems perspective in his analysis of how higher education institutions work as social organizations, establishing the importance of effective leadership.

The system dynamics perspective focuses on processes, components, and the relationships among them, particularly in defining feedback loops to achieve and sustain a desired state (stasis or growth) within a system (Hammond 2013). It uses a modeling approach to test how changing relationships and processes produces different system outcomes; an early and influential example of this scenario model analysis was published in *The Limits to Growth* (Meadows, Meadows, Randers, and Behrens, 1974), a study commissioned by the Club of Rome. Donella (Dana) Meadows (1999) subsequently developed and published a non-technical and widely-read overview of system dynamics and the opportunities within this perspective for effecting change in systems. System dynamics eventually was adapted to describe and understand social organizations; as noted in the previous section, Peter Senge has developed an approach that fuses the focus on process and relationship with attention to integration of purpose and meaningful learning (Senge, 2000, 2006).

Systems analysis or operations research developed from management science, which had taken a positivist, rational approach to describing how organizations should work (Hammond, 2013). West Churchman, a pragmatist, argued for infusing ethics and researcher responsibility into operations research (Hammond, 2013). Churchman's work led to the development of idealized systems design as an applied systems approach for action-focused research in social organizations. Drawing on Churchman and the work of other systems theorists, Bela H. Banathy (1992, 1995) developed a model of systems design that depended on participant commitment to the full process of systemic change, from inquiry through design through implementation. He insisted on basing inquiry in the future of the issue being addressed, toward the desired change, in order to move beyond the limits to thinking when looking at a problem from within its own practices (Banathy, 1992). The systems principles prominent in Banathy's (1992, 1995, 1999) approach are recognizing complexity, studying relationships across scales, and the intentional engagement in creative activity to generate systems that are purposefully future-oriented.

Research Problem

Rationale for the Study

While critiquing the higher education institution in the United States has a long tradition (Eells, 1934), today's institutions face a persistent challenge from growing public distrust and increasing federal oversight amid calls for access, affordability, and accountability (U.S. Department of Education, 2006). Higher education is an abstract social enterprise, yet its colleges and universities are actual formal organizations, complex social systems, that exist to meet higher education goals as well as serve additional missions. Are institutions meeting their

missions? Are they responding sustainably to systemic changes in their environments?

Returning briefly to the posited premise – that higher education is a social structure that supports post-secondary learning and has as its goal the development of students into societal members who support the society’s success through their intellectual, civic, economic, and cultural contributions – we can recognize that in addition to the set of institutions providing learning opportunities, another system has developed to support the efficacy of these institutions. The American system of regional accreditation, as the major gateway to federal funding for the majority of colleges and universities, provides quality assurance and accountability to institutions, the public, and the federal government through a cyclical process of institutional review. Yet while they perform these functions of accountability and quality assurance, they “derive their legitimacy from the colleges, universities and programs that created accreditation, not government” (Eaton, 2015, p. 2).

The accrediting commission for 4-year colleges and universities in the Western region of the United States (California, Hawaii, and the Pacific), the WASC Senior College and University Commission (WSCUC), states the following as its mission:

Through its work of peer review, based on standards agreed to by the membership, the Commission encourages continuous institutional improvement and assures the membership and its constituencies, including the public, that accredited institutions are fulfilling their missions in service to their students and the public good. (WSCUC, n.d., para. 1)

Within this mission statement are two key principles this study drew on: WSCUC declares that (1) the accredited institutions (the membership) determine the standards, and (2) the work of the commission is to encourage continuous institutional improvement. These two tenets suggest that colleges and universities undertaking WSCUC accreditation and reaffirmation processes agree that

continuous institutional improvement, as described within the WSCUC core commitments and the standards, is both valued and necessary to fulfilling their missions. This study investigated systemic relationships between these two critical subsystems, institutions and their accrediting bodies.

Research Questions

1. How have institutions of higher education reflected upon and described their intentional pursuit of sustainability and improvement as an organization in their self-study process, specifically in the institutional report, to their accrediting body, WSCUC?

Hypothesis (primary): Some institutions explicitly know they are pursuing sustainability, and they use the self-study to clarify what they are trying to do and the extent to which they have done it. The act of reflection and the active conversations and data gathering that provide input to the reflection may contribute to the continuous improvement effort, since the prompts ask for evidence and using evidence to articulate next steps (cyclical activities in and toward sustainability).

Other hypotheses: Some institutions do not use the self-study process for improvement, aiming instead for sustaining the status quo, by treating the self-study as constructing a history of competence or of exceeding internal or external expectations. Some institutions report accurately (descriptive self-evaluation) but do not reflect (formative self-evaluation).

2. What is the relationship between the conclusions reached in the institutional report and the commendations and recommendations made by WSCUC?

Hypothesis (primary): An institutional report is necessarily undertaken from a perspective within the institution, and in strong cases from multiple internal

perspectives that point toward an institutional vision. The conclusions reached and an articulated plan for further action are reflected in the WSCUC recommendations, made from an external perspective. The processes undertaken and the progress made are reflected in the external commendations. The internal perspective offers depth regarding what has been done and what remains to be put in motion, while the external perspective adds breadth and larger context to understanding the accomplished and the planned for.

Other hypotheses: (a) The conclusions reached in the institutional report are determined by WSCUC's review of evidence to be unfounded, inaccurate, or based on incomplete consideration. Or the institutional report provides no conclusions. The WSCUC team report informs the commission action letter, and its recommendations present suggested/required corrective actions. An incomplete or uncritical internal perspective suggests a flaw in sustainability processes and relationships within the system. (b) The conclusions in the institutional report are appropriate, well developed and point toward organizational sustainability and improvement, but the WSCUC commendations and recommendations do not reflect the institution's self-evaluation. WSCUC's peer review processes need to be analyzed and improved, and/or the process by which the commission considers the team report needs to be analyzed and improved, and/or the WSCUC expectations communicated to the institutions through the handbook and established processes need to be re-aligned with team review and commission expectations.

3. How do institutions and their accreditor (WSCUC) use the reaffirmation process to understand and support their own organizational learning?

Hypothesis (primary): From a perspective that treats this as a single question, the interaction of the two systems is evident and robust, and that interaction conduces to organizational learning for both systems.

Sub-hypotheses: Looking simply at how the institution uses the process, (a) we find that some institutions recognize the process as a formative learning experience, and use it continually or cyclically to improve their internal processes and outcomes and to adjust or refine their purpose(s). (b) We find that some institutions see the process mostly or entirely as an act of compliance (with threat of negative consequence for non-compliance) and respond by acting on new or deferred corrective goals, or by not acting. Actions result in improvement, or they do not. Reflection on how and why this happened results in learning, or it does not. In this scenario, there are many paths that do not lead to organizational learning. Looking simply at how the accreditor uses the process, we find that (a) WSCUC actively evaluates the environment for regional accreditation and reviews self-study processes among its peer commissions; and it recognizes within its institutional membership a range of institutional learning outcomes with respect to the reaffirmation process, evaluates the range to determine whether and how the process might be modified to support institutional learning, and refines the process to provide opportunities to support more institutions in organizational learning and sustainability. (b) WSCUC does not evaluate the environment for regional accreditation, and responds to its member institutions only when complaints regarding the self-study process and its systemic impact rise above some acceptable level.

The non-exhaustive set of hypotheses presented is meant to demonstrate the researcher's commitment to looking for evidence of organizational learning in support of a system designed to respond to internal and external challenges and

opportunities, and the researcher's acknowledgement that the evidence may point to systemic dysfunction. In either case, applied systems thinking could offer consequent design options.

Significance of the Research

The project endeavored to articulate a systems inquiry of higher education institutions and regional accreditation. It sought to demonstrate the value of applied systems thinking to designing not only responses but also opportunities for the sustainable existence of both organizational types and their interdependence. If analysis demonstrates that both systems show interdependent evidence of organizational learning, it could provide leverage for

- institutions and accrediting bodies to articulate their responsiveness and value to their stakeholders,
- internal constituencies (including but not limited to faculty, leadership, and boards, or staff, commissions, and peer members) to further nurture an organizational culture that embraces learning and change; and
- developing processes and practices that keep both systems agile and that revisit and renew systemic purpose and endeavor.

This project proposed that inquiry for the purpose of progressive action is supported through systems analysis and applied systems thinking, and particularly well suited for inquiring about the nature and future of higher education and IHEs, what Ackoff (1979) would have termed a “mess”.

Progress in handling messes, as well as problems, derives at least as much from creative reorganization of the way we pursue knowledge and the knowledge we already have as it does from new discoveries. [...] Effective treatment of messes requires the application of not only Science with a capital ‘S,’ but also all the arts and humanities we can command. (Ackoff, 1979, pp. 101-102)

Overview of Chapters 2 and 3

Chapter 2 presents a broad review of the literature across the change imperatives for IHEs; perspectives on accountability and accreditation; the emergence of higher education organizations as a subfield of organization theory and especially within organizational change; and the intersection of systems theories and integration of systems concepts within organization theories, in particular in organizational learning. The chapter closes with a survey of recent dissertation studies that share an interest in investigating higher education institutions from a systems-influenced perspective.

Chapter 3 identifies the purpose of the study and reiterates the research questions in that context; describes the paradigm for investigation, including approach to the research, strategy of inquiry, and delimitations; proposes a holistic, exploratory case study method using systems thinking principles; and recognizes the study's limitations.

CHAPTER 2: REVIEW OF THE LITERATURE

Change Imperatives in Higher Education

“Especially during the past decade there has been a flood of criticism of the American college and university,” wrote Stanford Professor of Education Walter C. Eells, to open his essay “Criticisms of Higher Education” in *The Journal of Higher Education* (Eells, 1934, p. 187). The critiques he identified include institutional aimlessness; lying, hypocritical leadership; weak or cynical faculty; students incapable of learning; overemphasis on athletics and fraternity activities; antiquated pedagogy; and alumni who “are the major educational crime of this generation” (Eells, 1934, p. 188). While recognizing the exaggerated nature of these particular remarks, he acknowledged that colleges and universities would need to continuously adapt to the 20th century’s emerging complexities.

Higher education institutions have not been deaf to the unrelenting call for change. In one of the most wide-ranging analyses of higher education and the evolving role of its institutions within its society, Clark Kerr, first chancellor of UC Berkeley and former president of the University of California, chronicled the challenges and changes in American higher education through the five editions of his *The Uses of a University*, first published in 1963, with a final revision in 2001 (Kerr, 2001). He focused on the American research university, but noted across a half century the *overall* shift in higher education expectations. In 2001’s newly added chapter 9, he looked back on his prescient identification of the serious diseases of the university in 1963, including federal influence on research; the rise of the sciences over the humanities and social sciences and the consequent conflicts between hard and soft intellectual pursuits and lopsided distribution of power, money, and influence; teaching’s loss of status to research and service,

with dire consequences for the undergraduate; and creation of academic entrepreneurs, both faculty and administrators, who often pursued power, money and influence while neglecting the core mission of teaching and learning (Kerr, 2001). Kerr (2001) named the drive to provide universal access to higher education, “begun with the land-grant movement of the 1860s” (p. 201) and “given a big push forward by the GI Bill of Rights after World War II” (p. 202) as one of the forces of greatest change in higher education. Higher education now provided not only admission to the professions but also to the emerging economy that depended on more highly trained workers, and so took on a new role in service to the greater national economy, rather than just its professional sector. He called the information age “the fourth revolution in the technology of education and the first in 500 years” (Kerr, 2001, p. 219), and placed it among a set of 15 challenges for the 21st century. These cover external economic, political, and social pressures as well as internal organizational issues.

Trow’s (1988) analysis of the history of higher education in the U.S. proffered three qualities of IHEs that set in motion its rise: decentralized authority, market responsiveness, and the power of institutional presidents. Market responsiveness, he argued, also gave rise to current challenges, including shifting demographics that affect enrollment, rising tuition and its problems for access, and the ability of higher education institutions to respond quickly enough to changes in the kind of education demanded. A more recent analysis (Trow, 2000) focused on the future and recognized information technology, and how institutions of higher education incorporated it into processes and programs, as a major challenge. Trow identified service provided by the college or university through lifelong learning opportunities as a key expectation of the public, and saw an opportunity for the challenge of IT to inform the delivery of continued or lifelong learning (Trow,

2000). Like Kerr, Trow (1988, 2000) had a fairly optimistic view of the ability of colleges and universities to meet the challenges facing higher education.

The Crisis in Higher Education and Its Institutions

Crisis in higher education is called out on a regular basis in mass media and the sector's journalism (Blumenstyk, 2018; Brown, 2018; Cavanaugh, 2018; Merisotis, 2015; Schoenbach, 2018) as well as in peer-reviewed publications. Cowan and Kessler (2015), in a *New York Times* op-ed piece, cited three main failings: poor student learning outcomes, the student loan debt trap especially as experienced by those who do not complete degrees, and lack of transparency from institutions regarding graduate success. They called for greater federal oversight. Ebersole (2015), responding to Cowan and Kessler in a *Forbes.com* essay, agreed that higher education and its institutions need to solve these problems but argued that more regulation was not the solution. Bernstein (2012), introducing a set of articles on the legacy of *The Uses of the University*, cited the consequences of financial and resource pressures as evidence that “[o]ur nation’s educational system is in crisis” (p. 474). Pointing to the recession that began in 2008, he noted that public institutions were grappling with how to maintain quality and accessibility, balancing aspirations with new financial realities, while privates were coming to grips with the financial pressures on competition for even elite markets. He made the dire observation that the public was questioning, “for the first time in over 50 years” (Bernstein, 2012, p. 475), the return on investment provided by a college education.

Tierney and Lanford (2016) identified higher education’s four pressing challenges: supporting and responding to the development of a knowledge-intensive economy, the consequent need for a workforce skilled in creativity and innovation, the globalization of higher education and its two tiers of mass and elite

education, and the decrease in public support for resources, financial, political, and otherwise. Their perspective was international, but they explicitly included American higher education as subject to these forces. They called for greater innovation and creativity as an institutional and systemic response, arguing that both are essential to the sustained relevance of colleges and universities for meeting evolving expectations. They identified organizational processes that could provide a framework for effective responses to changes in the environment and expectations, including developing diversity and trust, recognizing intrinsic motivation and safeguarding individual agency and autonomy, and responding to the time factors associated with innovation and efficiencies.

Accountability and Accreditation

A good deal of criticism of higher education institutions originates from a systemic opacity that limits the extent to which the public can know whether colleges and universities are providing a quality education (Cowan & Kessler, 2015; Kelchen, 2018). Criticism from a federal perspective asks whether the tax money invested in higher education especially through student loans is showing the expected returns (U.S. Department of Education, 2006). Because the federal government primarily funds higher education through an individual's pursuit of it, the expectation of it making a difference for the funded individual, i.e., achieving an education that supports her or his future success, is reasonable. The government has, since the 1952 Veterans' Readjustment Assistance Act, called for a national list of recognized accrediting bodies, as a means of ensuring that recipients of government funding for higher education would enroll in institutions whose quality was assured by a recognized accrediting body (Veterans' Readjustment Assistance Act of 1952).

Accreditation of higher education institutions in the United States dates to the late 19th century when an increase in the number of degree-granting institutions led to an effort to assure common standards in admissions and transfers (El-Khawas, 2001). Responding to the academic tradition of self-governance and peer review, these early accrediting organizations were regional associations of colleges and universities that self-organized and provided a group signature of approval for new members (Brittingham, 2009).

Accreditation took on new clout when, as noted above, the 1952 Veterans' Readjustment Assistance Act called for a national list of recognized accrediting bodies (Veterans' Readjustment Assistance Act of 1952). In 1965 the Higher Education Act inaugurated the federal program for general student financial aid in the form of grants and loans, and required in Title IV of that act that students receiving assistance be enrolled in institutions accredited by a nationally recognized accrediting body (U.S. Department of Education, n.d.). For institutions, then, accreditation moved beyond peer standards and became the key to receiving federal recognition and thus federal dollars.

Regional accreditation bodies have developed standards and expectations for colleges and universities to regularly present evidence of institutional effectiveness. Kezar (2004) offered two definitions of effectiveness from the literature. She first cited a 1994 Schuster, Smith, Corak and Yamada definition, in which they "suggested that effectiveness is the value of achieving a quality decision and that it is based on competence" (p. 36). She observed that Massey had defined quality in 2003 "in terms of outcomes; quality involves integrity of process; and quality requires decisions based on evidence, wherever possible" (p. 36). She then cited Birnbaum's (1988) *How Colleges Work* discussion of effectiveness as dependent on the culture of an institution, as "a match between the

expectations of constituents and how the processes and outcomes evolve” (Kezar, 2004, p. 36).

But the accrediting agencies themselves have recently been subject to considerable criticism with respect to public accountability. Ewell (2015), in a white paper for the Gates Foundation on the future of accreditation, argued that higher education would be operating in a “new ecology” by 2025, so accreditation would have to change to accommodate new approaches and challenges (p. 6). This higher education ecology will be globalized and feature new provider types and student participation patterns, constrained resource as a normal condition, an evolving teaching and learning paradigm, and continuing external demands for performance and transparency. He proposed greater public transparency through more public participation on commissions and on accreditation teams.

Regional accrediting bodies have been responsive to change imperatives for institutions as well as for accrediting itself. Smith and Finney (2008), interviewing Ralph Wolff, president of WSCUC from 1996 to 2013, asked specifically about how change in the accrediting process occurred. Wolff recognized the need for organizational change within WSCUC and its member institutions at least partly because he had studied learning organizations and adaptive change more broadly. This interest was translated into obtaining external foundation support for leading a change process within WSCUC. The results of that process included a transformation of the overall accreditation endeavor, developing standards and processes that focused on the core commitments that emerged from the design process. The resulting 2001 handbook (*Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges, 2001*) emphasized a process that focused on institutional capacity and educational effectiveness, which formed the two-visit structure of the accreditation process

from 2001 through the 2008 revision (Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges, 2008), up to the 2013 process simplification and handbook revision (WASC Senior College and University Commission, 2015). The Pew Charitable Trusts subsequently funded redesign processes for the North Central and Southern regional accreditors (Smith & Finney, 2008). The period at the beginning of the 21st century saw a general emphasis on continuous improvement and developing cultures of evidence through regional accreditation processes across the country. Wolff offered this reflection on accreditation process change, “We learned a lot [from experimental visits], and I hope we never lose the capacity to experiment periodically to keep our processes adaptive and effective” (as cited in Smith & Finney, 2008, p. 22). As part of WSCUC’s own evaluation of effectiveness, the association had external experts review visiting team reports and commission action letters for three different types of institutions, looking for evidence that WSCUC was meeting its stated aims. Wolff described the systemic change in Western regional accreditation as “a transformation – from a regulatory, once-a-decade, compliance-oriented process to a reflective, evidence-driven, and learning-outcomes-based one that is adapted to the plans, needs, and priorities of each institution” (as cited in Smith & Finney, 2008, p. 24).

Higher Education as a Field of Organization Study

Organization Theory: Culture, Change, and Leadership

As a generalization, organization theories arise to account for the behaviors exhibited by organizations and the people in them, to predict and at times prescribe those behaviors, and to account for differences along multiple

dimensions including purpose, structure, culture and era, and environment. Theories about human and social organizations are found in multiple disciplines; a non-exhaustive list could include anthropology, economics, history, law, linguistics, literature, management science, philosophy, political science, public health, psychology, and sociology. Organization theorists may have a specific disciplinary focus or use interdisciplinary approaches; schools of organization theory develop histories and practices, and may or may not recognize commonalities with other schools (Shafritz et al., 2011).

As this inquiry locates itself within a transdisciplinary systems approach, we focus on the strands of organization theory that provide warp and weft for, or weave through, the systems approach. Shafritz et al. (2011) included an excerpt of Chester Barnard's (1938) *Functions of the Executive* as a key example of neoclassical organization theory. Others (Gabor & Mahoney, 2013; Kast & Rosenzweig, 1972) placed Barnard among the early systems thinkers, citing his emerging systems approach to understanding organizations; though focusing on the central importance of the leadership role, Barnard recognized the complex interdependencies of multiple cooperating individuals and subgroups.

Organization researchers struggling with the "hard system" machine model of organizations found in management science and similar approaches began to look for ways to appreciate and account for the human dimension within organizations, or "soft systems" approaches (Hammond, 2013, p. 326).

Churchman and Ackoff, working within the operations research model, itself a development from management science, adopted a general systems theory approach and a focus on communication in decision-making (Hammond, 2013). Both theorists were pragmatists; Churchman emphasized holistic reality and the centrality of relationships in organizations (Hammond, 2008) and Ackoff

developed applied participatory action planning to engage stakeholders (Ormerod, 2006). Checkland, in an effort to apply systems engineering principles to organization studies and recognizing the need for real-world inquiry and learning, developed the Soft Systems Methodology (SSM) in the United Kingdom (Hammond, 2003). Chris Argyris, working from the Business School at Harvard, and Donald Schön, working in MIT's Department of Urban Studies and Planning, together developed a theory of organizational learning (Argyris & Schön, 1978, 1996) influenced by prior work on organizational change (Argyris) and reflective practice (Schön). Their work intentionally built a relationship between research and practice, an approach also common to pragmatism and applied systems theory. Edgar Schein, at MIT's Sloan School of Management, developed a theory of organizational culture and change, focusing on valid communication as necessary for organizational learning that strongly influenced organizational development as a field (Schein, 1993, 2002). He, too, used a practice-research model.

The emergence of organizational studies of higher education and its institutions in the mid-20th century was an outgrowth of research on management and organizations within the industrial sector and a reflection of the post-WWII expansion of the higher education sector (Hoover & Harder, 2015). The concept of loosely coupled systems as a defining characteristic of educational institutions was introduced in Weick (1976). Within Burton Clark's deep archive of research on the organization of higher education, a systems perspective emerged in, for example, a comparison of complexity in international higher education systems, attributed to varying degrees of diffusion of authority through academic specializations and the extent to which this thwarted centralized bureaucratic order (Clark, 1993).

Birnbaum (1988)'s contribution to organizational change theory drew from the cybernetics tradition of systems theory to describe how and why higher education institutions are distinct from business firms. Like many studies of higher education change (Boyce, 2003; Kezar, Carducci, & Contreras-McGavin, 2006; Kezar & Eckel, 2002b; Martin, Manning, & Ramaley, 2001), Birnbaum's (1988) theory has institutional leadership and leaders playing a central role in the description of how change works (theory) and in the proposed implementation of how change happens (practice).

Kezar and Eckel (2002a, 2002b) used multiple frameworks of organizational culture and change and Weick's sensemaking and various approaches to institutional process interpretation as they studied six institutions participating in a long-term institutional change project. Their focus in interrelationships of strategies and nonlinear processes and their emphasis on how institutional culture affects change efforts applied a systems perspective to their inquiry and subsequent findings (Kezar & Eckel, 2002a, 2002b).

Systems Theory, Organizational Learning, and IHEs

In the 21st century, principles of organizational learning and the idea of the learning organization have had an important place in applied and theoretical writings about higher education and organizational change (Boyce, 2003; Dee & Leišytė, 2016; Kezar, 2005; Martin et al., 2001). Senge's (2006) model of the ideal learning organization, as we have seen, emerged from a system dynamics perspective, and its message of purposeful change toward a sustainable future speaks to higher education institutions responding to internal and external change imperatives. Dill (1999) noted that Senge's approach and much subsequent literature is oriented toward action rather than theoretical research, focusing on

promoting change strategies rather than connecting organizational processes with empirically observed outcomes.

Kezar and Eckel (2002b) provided such a theoretical research study of IHEs and organizational change and demonstrated “the efficacy of combining multiple conceptual models” (p. 319). The idea of combining models, of working across disciplinary boundaries to understand complexity, was a founding principle of general systems research (Hammond, 2013). In this case study of six IHEs, they drew on teleological theory, social cognition models, bio-ecological models referencing the system-environment relationship and system homeostasis, and Weick’s sensemaking (Kezar & Eckel, 2002b). The richness of the analysis yielded a network of 20 common strategies and the important observation that transformational institutional change is about organizational sense-making, or the reconstruction of meaning (Kezar & Eckel, 2002b).

A review of systems thinking approaches as they have matured since the 1970s provided a comparison of three current trends through a group discussion with a recognized expert in each (Barton, Emery, Flood, Selsky, & Wolstenholme, 2004). The three practitioners, from Australia and the UK, differed on how to organize engagement of the world through systems thinking, but they agreed on four points: the core assumption of continuity of the whole to include the environment of systems; synthesis over analysis for understanding the whole and its elements, rejecting reductionism; the need for a greater use of systems thinking to address current and emerging complexity and change globally; and the need to redesign education systems to incorporate and teach systems thinking approaches (Barton et al., 2004). Table 1 summarizes the three practitioners’ main positions in the approaches reviewed: system dynamics, critical systems thinking, and open systems thinking.

Table 1

Three Applied Systems Thinking Approaches

Open Systems Thinking (OST) (Merrelyn Emery)	Critical Systems Thinking (Robert Louis Flood)	System Dynamics (Eric Wolstenholme)
Worldview: all systems are open and all boundaries are permeable (contextualism)	Worldview: self-organizing adaptive system (organic model)	Worldview: self-organizing adaptive system (organic model)
3 parts: systems, social environments in which systems exist, relations (learning and planning) between systems and environments	Inter-relatedness and emergence: we learn about our experience with the world, not merely the systems in it	Change, not equilibrium, is norm; think in parallel, and in multiple directions and dimensions
Rejects non-contextual (closed system) approach of system dynamics and critical systems thinking	Rejects economic rationality perspective of system dynamics and open systems thinking	Inclusive: believes other approaches are compatible
Optimistic: believes OST can be the change needed	Uncertain about knowledge and reality, but believes we can learn our way into future	Optimistic: believes some organizations are adopting systems thinking
OST: reality-based social science that embodies transactionalism	Inquiry as practice: perspectives are always partial; systems concept help construct, but never completely describe and define	Uses system dynamics to map and model (represent)
“Search conference process” gives communities tools to take responsibility for change	This partial, temporary position is action area for inquiry/practice	“Value chain dynamics” brings together organizational operations and strategy
Identify laws that govern transactions and adapt/change them within community or system	Ethics: who is/is not inside our boundaries of thinking, who does/does not benefit	Learning as process more important than outcome

Note. Adapted from Barton, J., Emery, M., Flood, R. L., Selsky, J. W., & Wolstenholme, E. (2004). A maturing of systems thinking? Evidence from three perspectives. *Systemic Practice and Action Research*, 17(1), 3-36. <https://doi.org/10.1023/B:SPAA.0000013419.99623.f0>

Despite the shared principle of synthesis over analysis described and discussed in Barton et al. (2004), there remains an effort to rationalize systems thinking approaches. Bui and Baruch (2010) presented a quantified model of Senge’s five disciplines to analyze learning organizations in higher education institutions. Their framework developed a causal model that posits specific constructs within higher education institutions antecedent to the five disciplines of learning organizations and how they interact. Arnold and Wade (2015) proposed a definition for systems thinking that they drew from common elements found in the literature, and subjected to a systems thinking analysis. They developed a three-

part “System Test” to be applied to each proposed systems thinking definition, checking for presence of descriptions of purpose, elements, and interconnections. They proposed a complete definition, one that hewed closely to an early version of the system dynamics approach, to support developing a systems thinking approach for use in education (Arnold & Wade, 2015).

A more synthetic proposal for applying systems thinking to education is found in Banathy’s systems view of education (Banathy 1992, 1995, 1999). Banathy (1992, 1995, 1999) emphasized the importance of context and environment from Bertalanffy’s open system principles, and modeling techniques from system dynamics and critical inquiry and action from Churchman’s and Checkland’s practice-oriented human-centered organizational theories. He proposed that ideal systems design could and should be applied in the real world to transform education, specifically in order to “respond to the new realities” and “meet the societal challenges” (Banathy, 1992, p. 79) of the emerging future. Banathy (1999) asserted that the primary transformation needed in higher education was becoming learning focused rather than teaching focused.

Dee and Leišytė (2016) reviewed the development of organizational learning within IHEs, covering multiple systems-based approaches and their intersection with critical and practice-based theories. They proposed a set of research agendas, based on three overarching paradigms of approach emerging from their review: functionalist, interpretive, and critical, applied to the three major areas of research within higher education organizational learning: accountability and institutional improvement, organizational change, and faculty learning. Table 2 reproduces their proposal. They concluded that, while a great deal of organizational learning research in IHEs has taken place within a functionalist approach, integrating additional approaches could enrich ongoing and

future research to “advance the social, economic, and educational missions of higher education institutions” (Dee & Leišytė, 2016, p. 340).

Table 2

An Organizational Learning Research Agenda for Higher Education

Approaches	Functionalist	Interpretive	Critical
Accountability and institutional improvement	How do higher education institutions learn from the external environment?	How and to what extent do communities of practice and social networks foster organizational learning for institutional improvement	How are interests represented and negotiated in organizational learning?
	What mechanisms foster organizational learning in colleges and universities?	How can practice-based knowledge inform institutional accountability?	To what extent does organizational learning reinforce top-down power and strengthen central management?
	How can organizational learning incorporate grassroots innovation?	In addition to formal committees and task forces, what role do informal social networks and communities of practice play in fostering organizational change?	What types of emancipatory learning spaces can be created within higher education institutions?
Organizational change	How can organizational learning foster change in higher education institutions?		
Faculty learning	How can learning that emerges in various change initiatives become institutionalized in the wider organization?	To what extent does faculty learning occur through communities of practice?	How might power dynamics exclude some faculty from group and organizational learning processes?
	How can faculty learning influence organizational learning?	How do faculty members derive a sense of identity from the communities of practice to which they belong?	

Note. Adapted from Dee, J. R. & Leišytė, L. (2016). Organizational learning in higher education institutions: Theories, frameworks, and a potential research agenda. In M. B. Paulsen (Ed.), *Higher education: Handbook of theory and research 31* (pp. 275-348). Cham, Switzerland: Springer. https://doi.org/10.1007/978-3-319-26829-3_6

Another strand of systems inquiry emerges through research into the processes of organizational improvement and quality assurance for IHEs. Dill (1999) presented a study of organizational learning in IHEs in Europe, adapting Garvin's (1993) business model for learning organizations of five activities plus assessment into a model for academic learning organizations. He analyzed the self-studies prepared by 12 universities for a project sponsored by the Organization for Economic Cooperation and Development's Program on Institutional Management in Higher Education evaluating the effects of teaching and learning assessment on institutional management and decision-making. His analysis yielded evidence that IHEs were responsive to competitive environments of academic assessment, and he found that academic learning organizations shared additional characteristics, including a culture of evidence, improved coordination of teaching units, and university-wide coordination of learning (Dill, 1999). Dill (2014) later proposed reforms to U.S. higher education accreditation that included more centralized control of accreditation, more analysis and stronger communication of student learning outcomes at the program level, and better institutional course grading criteria. This later work appears to have abandoned a systems theory perspective for a more functional and mechanistic quality management approach. Weil (1999) proposed "systemic inquiry and learning from 'within the mess,' as an alternative to processes of highly centralized control, systematization and standardization" (p. 173) in response to the 1997 Report of the National Committee of Inquiry into Higher Education in the United Kingdom (Dearing Report). She argued for systemic understanding and rigorous but non-standardized criteria for academic quality that could respond to complex challenges through integrated "action, discovery, and transdisciplinary analysis" (Weil, 1999, p. 177).

Martin et al. (2001) demonstrated that an (American) institution could use its accreditation self-study as a catalyst for strategic institutional change, drawing on the literature from organizational learning in higher education. Davenport (2001) approached the question of organizational learning from the perspective of changing accreditation standards in the U.S. She traced the incorporation of student learning outcomes assessment into accreditation standards, and described the difficulty of balancing multiple stakeholder needs in revising standards for institutional process and outcomes. She identified the learning in respect to purposeful change that takes place across and among the organizations, from the institutions, to the accrediting agencies, to bodies responsible for recognizing the accrediting agencies.

Houston (2008) reviewed quality assurance in New Zealand's higher education environment, found that industry-derived models focused on control were not a good fit for IHEs, and proposed the adoption of systemic perspectives for purposeful improvement. Identifying the issue of quality in higher education as a mess (Ackoff, 1979), Houston applied multiple methodologies from the critical systems thinking approach to analyze the quality improvement efforts in an academic department within a New Zealand public university. Not surprisingly, among the challenges he found in systemic practice applied to higher education were a mistrust of organizational learning and of so-called soft systems concepts applied within a hard science academic community, as well as the challenge of maintaining the complexity of systemic inquiry and not defaulting to reductionism for the sake of quick order.

Intersecting Dissertation Research

A search of the dissertation and thesis databases yielded a handful of studies that overlapped with this investigation's areas of interest. Portfelt (2006)

completed a case study systems analysis of one Swedish university, seeking to determine the extent to which its own organizational characteristics aligned with or presented barriers to learning organization qualities. She developed a theoretical model of six higher education subsystems, integrating organizational learning principles from both management research and higher education research; collected data from a survey, interviews, and documents, and triangulated among them to assess each subsystem for alignment with learning organization requirements. Only one subsystem, grouping, met the requirements, one both met and did not meet the requirements (vision), and the other four subsystems failed to meet the requirements (communication, norm, sanctions, and evaluation). She used a system dynamics analysis of linkages and feedback loops to understand the relationships among the subsystems, and identified two subsystems (grouping and norm) as leverage points to intervene in the system, toward greater organizational learning. An important question arising from the discussion of her findings asked explicitly whether it is realistic to expect an organization of the size and subsystem complexity of a university to function as a learning organization (Portfelt, 2006).

Webb (2018) investigated leadership, organizational learning and second-order change in California community colleges. Second-order change, an organizational theory concept developed from cybernetics, refers to organizational change that transforms underlying assumptions, not merely patterns or processes of action (first-order change). Her multiple case study used three embedded units of analysis, formal and informal campus leadership and artifacts of organizational culture. Her results demonstrated that second-order change in community colleges is possible when the culture is characterized by strong trust, shared self-perception and beliefs about internal capacity, and proactive communication. Cogswell (2016) also used a multiple case study design, though she did not use a systems

theory perspective, to examine the relationship between accreditor and institution. She analyzed three accreditor-institution pairings using Lane and Kivisto's principal-agent theory for higher education governance. Principal-agent theories describe the relationships and problems arising when an agent acts on behalf of, though not necessarily in the interests of, a principal. The study resulted in recommendations for institutional and accreditation leadership to improve the relationship between them.

Drawing on an organizational learning perspective that focuses on absorptive capacity of individuals (especially leaders) and organizations, communities of innovation, and dynamic network theory, Kim-Han (2016) used a two-institution case study design to investigate the relationships between leadership and organizational change for innovation, primarily using interviews with campus leaders for data. Similar to the way Portfelt (2006) integrated several models for her systems analysis, Kim-Han looked at her evidence through multiple perspectives, including a leadership frame analysis, absorptive capacity and communities of innovation coding, and semantic knowledge networks. Her analysis yielded a non-linear, networked (non-linear) understanding of the relationships between leadership and a campus culture of innovation.

Summary

The literature that underpins this study is drawn from multiple disciplines and intersecting, overlapping, convergent and divergent approaches. The methodologies vary widely, though the thread weaving through the committed general systems practice suggests the value of taking many perspectives to surface and understand evidence of not assuming that the given questions are the only or best way to build a systemic analysis, of acknowledging that there can only be

partial models and descriptions, and of recognizing that any study is itself undertaken within complex systems and from specific perspectives.

Here we focused on the development of organizational theory and its application to higher education organizations using a lens that highlighted intersections with the development of systems theory and systems thinking. The perspective was neither as deep nor as broad as possible; the researcher looks forward to continued immersion in the literature but more so to actually engaging in conversations and discussions with researchers and practitioners.

The researcher recognizes that the literature review does not fully synthesize the many strands of inquiry. A goal is to develop a more integrated understanding of systems and organizational theory through the study, refining it toward a synthetic narrative supporting the rationale to study the systems, processes and relationships among higher education institutions and accrediting organizations.

Chapter 3 proposes a methodology for undertaking this study. It offers the researcher's epistemology and suggests how a case study approach can support the kind of evidence gathering and interpretation needed to propose a systems analysis and apply systems thinking.

CHAPTER 3: METHODOLOGY

Purpose of the Study

Casey's (2002) analysis of the epistemological questions facing social scientists places in high relief the crisis of postmodernity. We can borrow from Yeats's (1920) post-World War I observation,

The best lack all conviction, while the worst
Are full of passionate intensity.

Casey (2002) suggested that the study of social organizations is evolving beyond investigation of strategy and system, to replace the rationalizing order of organizational structures with the recognition of the forces transforming self and society. If the pursuit of truth and of rational structures is a dead-end, she argued, we must advance our inquiry by accepting the dynamic complexity of individual and social forces (Casey, 2002). The complexity of social forces within already complex social organizations is why understanding intentional institutional change lends itself to a systems approach.

Colleges and universities, as social organizations ostensibly in service to the public good (i.e., the social enterprise of higher education), must reckon with the constant external accusation of crisis and, as sanctuaries for intellectual activity, with the self-awareness that the issues of the moment and epoch are not merely objects of study but forces that require response. How might an institution of higher education understand its current context(s) and move intentionally toward a sustainable future? How does the reaffirmation process developed by a regional accrediting body encourage organizational inquiry and learning within institutions? How do these two subsystems within American higher education, institutions and accreditation, sustainably evolve together? The purpose of the inquiry is to develop applied systems perspectives on these issues, to identify the

shared and distinctive values of these perspectives, and to seek evidence for an intentional progress-oriented systemic connection between institutional learning and the accreditation reaffirmation process.

Research Questions

1. How have institutions of higher education reflected upon and described their intentional pursuit of sustainability and improvement as an organization in their self-study process, specifically in the institutional report, to their accrediting body, WSCUC?

2. What is the relationship between the conclusions reached in the institutional report and the commendations and recommendations made by WSCUC?

3. How do institutions and their accreditor (WSCUC) use the reaffirmation process to understand and support their own organizational learning?

Paradigm for Investigation

Approach to the Research

The philosophical influences on this investigation arise from critiques of positivism. The latter, broadly, is a theory of knowledge in which natural phenomena are observed and knowledge is validated only through empirical inquiry. Critiques arose along two lines: the strict rationalism of positivism devalued subjective experience, which might be oversimplified as pitting the sciences against the humanities; and philosophers and scientists began to grapple with whether humans could make fully objective observations. The problem was compounded as the phenomena observed increasingly included human constructs, interactions, and organizations.

Kuhn's (2012) *The Structure of Scientific Revolutions* helped me (a) recognize subjectivity in scientists, philosophers and humans generally, (b) consider the history and philosophy of science when engaging in inquiry, and (c) recognize case histories and exemplars as important components of a scientific paradigm. The value of pragmatism as originated by Peirce and further expanded by Dewey, James, and their students resides in a focus on consequent phenomena, rather than antecedent, and the potential for future action (Dewey, 1931). Argyris and Schön (1996) pointed to Dewey's insistence on action: "Inquiry for Dewey combines mental reasoning and action. The Deweyan inquirer is not a spectator but an actor who stands within a situation of action, seeking actively to understand and change it" (p. 31). Cherryholmes (1992, 1994) argued for pragmatism's valuing of consequent action, and described its complex perspectives as follows:

Simultaneously, it [pragmatism] has structural and poststructural and modern and postmodern elements. (...) Pragmatists do not value or court chaos and uncertainty, they simply expect to find them, possibly around the next corner (Cherryholmes, 1994, p. 208).

At the heart of my inquiry is a worldview that is human-centered and problem-centered as well as generative with respect to theory. It is pluralistic, values multiple meanings, and operates from the position that meaning is constructed by people engaged in communication. In seeking to understand the world in which we live and the sector in which we are meaningfully productive, the perspective recognizes the complexity of views and the consequences of actions (Creswell, 2009).

Strategy of Inquiry

Research within this worldview starts with open-ended questions, such as those articulated above, and an awareness that the questions may change significantly as investigation reveals possible consequences. Jenlink (2004)

reinforced this in discussing pragmatism and systems design when noting, “Importantly, pragmatism requires the design practitioner to interpret each notion and idea by tracing its respective practical consequences” (p. 333). The central strategy for inquiry was based on applied systems thinking.

Applied systems thinking. Hammond (2013) traced the roots of applied systems thinking approaches in organizational studies to three strands of systems theory described in chapter 1: general systems theory, cybernetics, and system dynamics. Within organizational studies, applied systems thinking plays a role in “organizational cybernetics, systems design, critical and emancipatory systems theory, sociotechnical systems, organizational learning and organizational development” (Hammond, 2013, p. 327). It is an inquiry and practice that engages its researchers and practitioners in understanding and developing principles and processes from systems theory approaches, including feedback loops, information flows, decision-making processes, organizational learning, and idealized systems design (Hammond, 2013).

Table 3 organizes six approaches to the learning organization, starting with Senge’s (1990) five disciplines of practice. A key component of three of the approaches (Kezar & Eckel, 2002b; Houston, 2008; Portfelt, 2006) is a methodological systems pluralism that looks at IHEs through multiple perspectives. Adopting this pluralism, I used the core strategies identified by Kezar and Eckel (2002b) as a beginning framework for seeking evidence of organizational learning in the reaffirmation process documents. Senge’s (1990) and Dill’s (1999) disciplines/activities were available as flags to help identify organizational learning and applied systems thinking in the evidence.

Table 3

Six Ways of Looking at a Learning Organization

Approach	Learning organization qualities identified in approach	Notes on approach
Senge, 1990 <i>The Fifth Discipline</i> (1 st ed, rev. 2006) 5 disciplines for practice	Personal mastery Recognizing mental models Shared vision Team learning Systems thinking	Critiqued as idealistic and hortatory rather than descriptive.
Garvin, 1993 5 activities of the learning organization (plus)	Systematic problem solving Experimentation Learning from internal experience Learning from others' experience Transferring knowledge throughout organization Plus: Measuring to ensure learning gains	Based on production management. Deterministic.
Dill, 1999 Modified Garvin's model for academic learning organizations Kezar & Eckel, 2002b 5 core strategies in IHEs for transformational change (plus)	Develop culture of evidence for systematic problem solving Innovation in teaching/learning; testing improvement ideas Systematic observation & assessment of internal processes External benchmarking; evidence of alumni success Internal knowledge transfer via communication & linkages Structural adaptations to support five activities Supportive senior administrators/leaders Collaborative/shared leadership (positional, non-positional) Robust design: flexible future vision & means to get there Staff & faculty development opps associated with change Visible action & promoted activities for ongoing change Plus: Sensemaking conjoined with/supporting all strategies	Hews closely to management movement methods. Deterministic. Intentionally combines multiple models for organizational learning and change.
Portfelt, 2006 Adapted Ekholm's organizational subsystems to understand university culture and structures	Vision system: organizational formulation & implementation of vision, and members' identification with it. Communication system: quality, quantity, integration across levels. Grouping system: how members are linked within & between boundaries – affects ability to construct and transfer knowledge. Norm system: degree to which risk (mistakes, questions) is tolerated; ability to manage conflict & integrate new ideas. Sanction system: system of incentives, rewards, punishments, and extent to which this is transparent and aligned with vision, identity. Evaluation system: systematic problem solving, learning from environment and experience, systems thinking.	Mixed theoretical model of learning organization. System theory analyses sought reinforcing links among subsystems.
Houston, 2008 Adapted Beer's Viable System Model (VSM) as quality improvement diagnostic. VSM: All viable systems have 5 necessary & sufficient subsystems (S).	S1: <u>Implementation</u> ensures functions of the organizations are doing what they're supposed to. S2: <u>Coordination</u> of short-term decisions aligns them with overall purpose expressed in policies and priorities. S3: <u>Control</u> ensures resource distribution and oversight are aligned with overall purpose expressed in goals. S4: <u>Intelligence</u> finds and interprets info about system and environment, communicates to and affects environment, links system and subsystems to environment. S5: <u>Policy & Identity</u> ensures policies and efforts conduce toward system's preferred future. Axiom: Viable systems are recursive.	Critical systems thinking & methodological pluralism. Note: Beer's VSM is deterministic and based on goal of homeostasis.

Again referencing the multiple models approach to systems inquiry, the results of the investigation of learning organization qualities and a second consideration of the evidence will provide an opportunity to apply Banathy's (1992, 1995, 1999) work on systems design for education. This stage of investigation modifies Banathy's (1995) set of lenses for developing a systems perspective and his four domains for organizational inquiry. Banathy (1995) proposed three lenses through which to view systems; each view is one model of the system, and superimposition of the views presents a fuller though not "comprehensive view," as Banathy suggested (p. 56). Metaphorically, our ability to look at systems is, like a camera obscura, always limited by position (Figure 1).

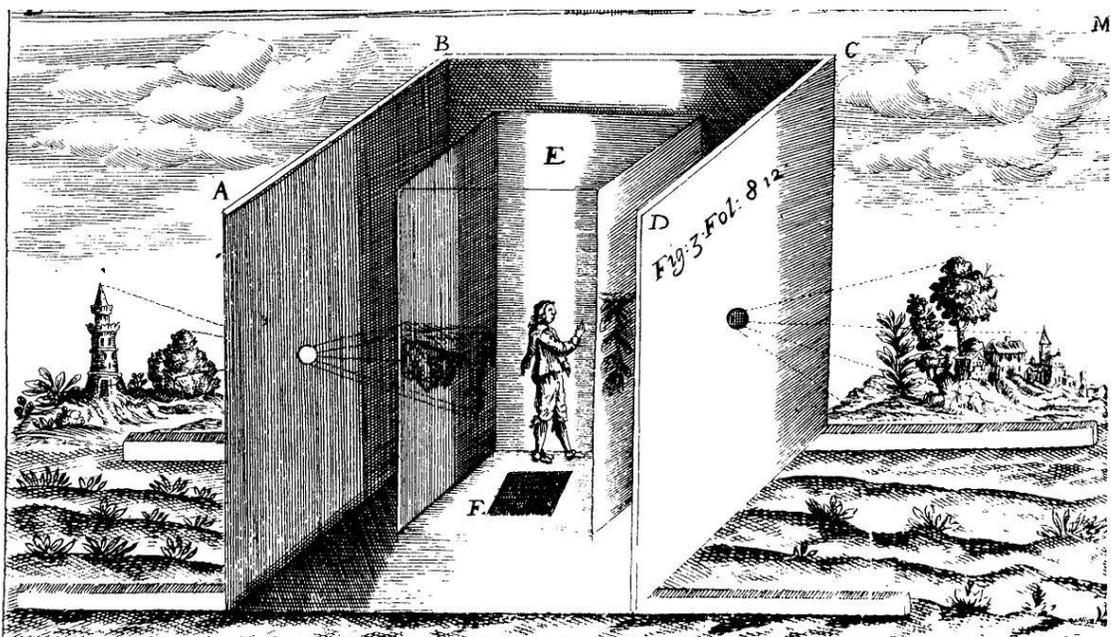
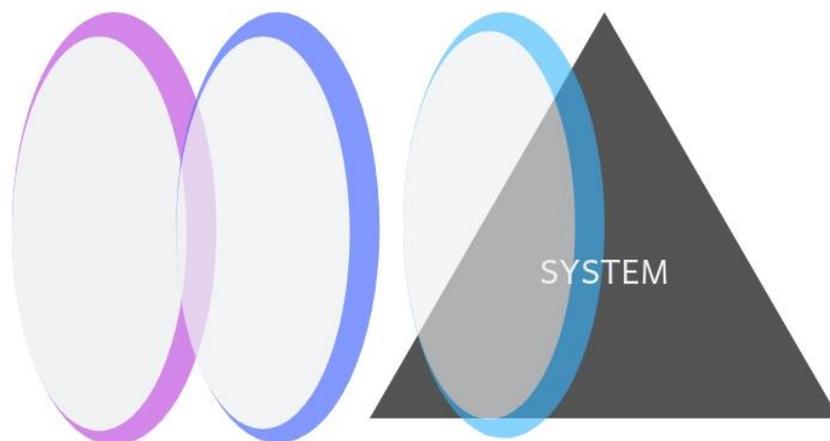


Figure 1. Illustration of camera obscura.

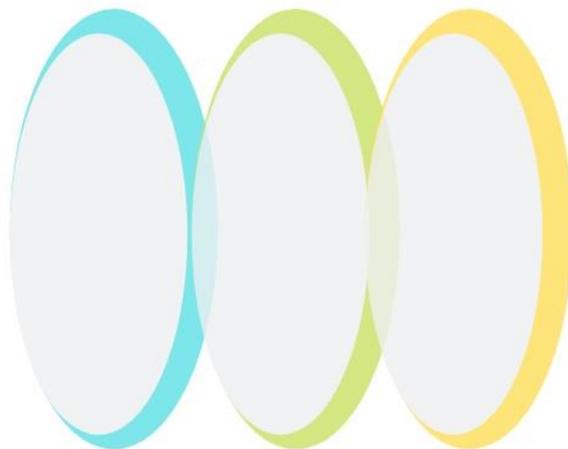
Adapted from *Ars Magna Lucis et Umbrae* by A. Kircher, 1646. Courtesy of the Department of Special Collections, Stanford University Libraries.

Bearing in mind that any set of perspectives is limited, Banathy's three lenses of system environment, functions and structures, and system through time

are supplemented by additional lenses: the relationships between systems and their networked elements, material (including information) flows, and concurrent and iterative inquiry processes (Figure 2).



Banathy's three lenses for viewing a system:
 system environment, functions+structures, system through time



Additional lenses:
 system-system relationship including networked elements,
 material/info flows, concurrent and iterative inquiry processes

Figure 2. Six lenses through which to build systems understanding

Following this multi-lensed, multiple perspective inquiry, I re-view the models in an effort to identify the domains in which active and productive change can be considered. Banathy (1995) proposed four domains: system analysis and description, systems design, design implementation, and systems management including change. The model is modified by having reconsidered systems design not as a complementary inquiry but as an integrating approach, adding the design processes of open-ended inquiry, collaborative/team inquiry, divergent-convergent ideation, and testing and re-entering the inquiry process, essentially applying systems thinking with and through processes of design thinking (Figure 3).

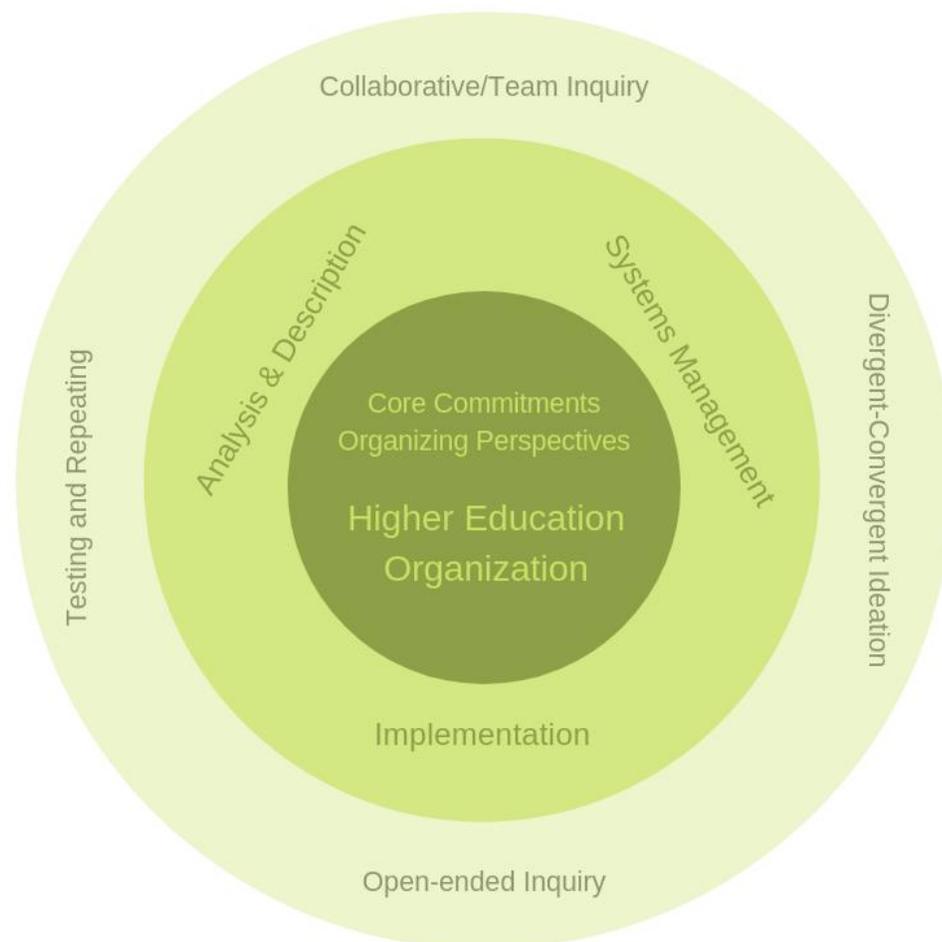


Figure 3. Applied systems design as inquiry: domains and action processes.

Written texts will provide the data being studied for evidence of intentional organizational change, specifically organizational learning (Argyris & Schön, 1996; Boyce, 2003; Senge 2006). The texts are products of two interrelated and interdependent systems within the higher education enterprise, institutions (senior colleges and universities within the Western accrediting region) and accreditation (WSCUC). The texts pre-identified for study are the accreditor's handbooks from 1988, 2001, 2008, and 2013, institutional reports produced by a college or university as part of self-study processes undertaken using the 2013 handbook, and the related visiting team reports and commission action letters. Other available texts may be drawn upon to support a systems analysis.

To place the project within recognized research approaches, this pragmatic inquiry uses qualitative methods of descriptive and exploratory case study. It is descriptive in that it is used to illustrate an applied systems thinking analysis; it is exploratory in that it proposes a way of understanding systemic interdependencies and points to a domain of inquiry in idealized systems design for higher education (Hancock & Algozzine, 2017). It is hoped that this might become a paradigmatic case in providing metaphorical and prototypical value; the paradigmatic case is a proposed exemplar where no standard exists to be tested against (Flyvbjerg, 2006). Knowing in advance whether one has chosen a paradigmatic case is difficult:

Like other good craftspeople, all that researchers can do is use their experience and intuition to assess whether they believe a given case is interesting in a paradigmatic context and whether they can provide collectively acceptable reasons for the choice of case. (Flyvbjerg, 2006, p. 233)

Delimitations

This inquiry proposes an applied systems thinking analysis derived from the integrative and human-centered perspective of Bertalanffy's and others'

general systems theory (Hammond, 2003), organizational learning approaches and their application within IHEs (see Table 3), and Banathy's (1992, 1995, 1999) systems design proposal.

As a project grounded in applied systems thinking, it is important to not lose sight of the necessity of taking multiple perspectives, valuing multivalence, and keeping human agency and practice at the center. Hammond (2008) emphasized the importance of human action in systems thinking:

The ontological emphasis on the interactive nature of organization is particularly significant in the application of systems thinking in the social realm. Human behavior can no longer be attributed solely to external forces or to a deterministic heredity. Instead humans are seen as active agents whose behavior is conditioned by an ongoing process of perception, interpretation, and creation of meaning. (p. 23)

Boundaries. The systems approach provides inquiry boundaries of inclusion and exclusion. Included in the project are iterative processes of looking at the case from different perspectives, generating possible interpretations and tracing potential consequences, evaluating lines of inquiry, and converging on promising approaches toward a systems design for the synergic higher education subsystems in the case study. Excluded from the project are reductionist or mechanistic solutions and the elimination of perspectives to settle on a single viewpoint for the sake of reducing complexity. While a limitation is that an exhaustive set of perspectives is not within the scope of this project, and may not even be possible as Ackoff (1979) suggested, the researcher is committed to welcoming additional viewpoints, perspectives and counter-perspectives as offered or discovered, and to acknowledging the partial and incomplete nature of the systems analysis.

Scope of the study. The data gathered consisted of institutional reports, visiting team reports, commission action letters, handbooks of accreditation, and

relevant supporting documents produced by WSCUC-accredited institutions and by WSCUC itself between 2001 and 2017, and including the 1988 handbook for reference.

Case Study Method

A holistic case study method (Yin, 2009) was used in this project to investigate the organizational relationship between higher education institutions and their accreditor and the process relationship between reaffirmation and organizational learning. Some of the texts identified above are publicly available; since a policy change in November 2011, all WSCUC commission action letters and team reports have been made available at wscuc.org in the directory entry for each member institution. Many California State University (CSU) institutions make their institutional reports public, and some member institutions post their institutional reports voluntarily.

Flyvbjerg (2006) identified context-dependent knowledge, such as that learned through conducting a case study, as necessary to move beyond rule-based learning toward expertise. Harland (2014) emphasized the recursive nature of analysis in case study methodology, which supports the iterative process of applied systems thinking outlined above. Case studies are always open to additional data as it is discovered or pursued, because, as Harland (2014) noted, “all forms of qualitative inquiry are provisional” (p. 1118).

The case study method for a systems analysis within higher education may be seen as analogous to Geertz’s (1973) meaning-making web analysis. He explicitly aligned his epistemological foundation with Max Weber in recognizing that

man is an animal suspended in webs of significance he himself has spun,
[and] I take culture to be those webs, and the analysis of it to be therefore

not an experimental science in search of law but an interpretive one in search of meaning. (Geertz, 1973, p. 5)

Like Geertz's web of culture, higher education encompasses the human-designed, purposeful systems of institutions and accrediting organizations, and a case study method for systems analysis is an interpretive inquiry in search of meaning.

Case Selection

Selection of the Western region for this case study resulted from the researcher's familiarity with the accrediting agency, WSCUC, with several different types of 4-year institutions within the region (public, private, non-profit, for-profit, liberal arts, professional, art- and design-focused), and with WSCUC's accreditation and reaffirmation processes, having served as accreditation liaison officer (ALO) and having contributed to institutional reports and self-studies.

The selection of institutions whose reaffirmation processes were studied was influenced by wide-ranging and long-standing discussions with WSCUC-stakeholding colleagues and associates. To hold a stake in WSCUC means to be vested in the practices and conditions of Western regional accreditation and to be concerned that outcomes of those practices and conditions support the sustainability of higher education, its systems and institutions. The case study looks for evidence that these systems are purposive and capable of intentional, positive change, in order to demonstrate that organizational learning is a useful systemic function; purposeful intensity sampling (Bailey, 2007) suggests selecting institutional reports and self-studies that are likely to intensely demonstrate such evidence.

Given that the reaffirmation process is the opportunity for institutions to demonstrate how they continue to "ground their activities in three Core Commitments" (WASC Senior College and University Commission, 2015, p. 8),

all accredited institutions aim to do so. Of the 209 institutions listed in the WSCUC directory in November 2018, 188 were accredited without concern, probation, warning, or show cause, 10 institutions were accredited and in one of the four concern categories listed, and 11 were candidates (WASC Senior College and University Commission, n.d.). The selection of institutions whose reports would be studied, then, was determined through conversations with stakeholders and confirmation that the most recent commission action letters differed from each other and yet affirmed that each institution was demonstrating the Core Commitments and meeting the four standards. Two CSU campuses and two private non-profits, all of which have had submitted institutional reports or interim reports under the 2013 handbook, were chosen for study.

Data Collection

Institutional documents. The researcher informed each institution's office of academic affairs that their publicly available accreditation documents would be part of a doctoral dissertation systems analysis of organizational learning and accreditation. One institution made its interim report publicly available on request from the researcher. Information for analysis may be found throughout a report, but special focus was placed on sections 7 (Sustainability: Financial Viability; Preparing for the Changing Higher Education Environment) and 9 (Conclusion: Reflection and Plans for Improvement) (WSCUC, 2015) of the main institutional report for reaffirmation. Interim reports are shorter documents prepared in response to recommendations and specific issues of concern identified in commission action letters; the one used in this case study was reviewed in entirety.

Commission action letters and team reports. Commission action letters and team reports have been available on the WSCUC website at an institution's directory page since July 2012.

Handbooks. The 2001 handbook introduced a newly designed approach to accreditation for learning. Handbooks and the documents produced in support of their redesign were studied for evidence of internal organization learning and a commitment to institutional member learning through organizational change and intentional continuous improvement. The 2008 handbook was a minor rewrite of the groundbreaking 2001 approach, while 2013 was a more thorough rewrite that included process simplification and focused on public accountability but also retained the commitment to organizational learning. These three handbooks are widely available in electronic format. A hard copy of the 1988 handbook was used for reference. Supporting documents, such as the evaluator guide, were retrieved from wscuc.org.

Data Analysis

Ricoeur (1991) suggested that the interpretation of written texts (hermeneutics) can be complementary to text-based structural analysis, as the two approaches refer back to each other. Reading as the process of data analysis within research requires the researcher to work toward building self-understanding from an individual and a systemic perspective. While this raises the philosophical question of the extent to which we can demonstrate the building of systemic understanding, research presupposes that systemic understanding is possible and desirable. Ricoeur was not constructing his arguments based on systemic understanding, but on the act and value of reading texts. Because the data here are texts that are parts of a much larger discourse among organizations (human systems), the analysis of data includes structural analysis (e.g., alignment of responses to writing prompts) and interpretation, that is, placing myself as well as the systemic perspective I claim to represent “within the sense indicated by the relation of interpretation supported by the text” (Ricoeur, 1991, p. 63). More

plainly, I looked for meaning that it is reasonable to suppose was intended communication.

From the discourses (sets of related texts) and their interpretations, I then looked for evidence of organizational learning within texts and within discourses using three strategies employed by Kezar and Eckel (2002b): categorical analysis based on the guidelines just below, narrative analysis to begin elucidating relationships and interdependencies, and memoing to record ideas as they emerged during data collection and categorical and narrative analysis. The set of guidelines for evidence includes manifestation of the core strategies for transformational change (Kezar & Eckel, 2002b), and of Senge's (2006) five disciplines and Dill's (1999) six activities (see Table 3).

The results of the analysis of evidence were then cycled into new consideration using the modified systems design perspective (based on Banathy, 1992, 1995, 1999) for potential consequent action at any level: within or between institution(s) and accreditor, or between institution/accreditor and their environments. See Figure 4 for a diagram of the methodology.

Limitations

This study's limitations arise primarily from the choices made in approach and methodology, and from the scope of the project.

Interpretation and Positionality

Of primary importance, the approach to understanding written information requires reading, and reading is always an act of interpretation. An assumption is that the texts present a readily apparent meaning, and that the content of the meaning aligns with a reasonable perspective of reality. The reader-researcher acknowledges her own perspectives are multiple in number and discipline. I read

Case Study	Processes to Develop Multiple Perspectives			
	<i>memoing throughout all processes</i>			
	Structural Analysis	Categorical Analysis	Narrative Analysis	Applied Systems Design
IHEs & regional accreditor	of all texts and between texts	of institutional reports	of institutional reports and WSCUC docs	for IHEs and regional accreditor and their interdependence
WSCUC CSU1 CSU2 Priv1 Priv2	relationships among elements organization of material response-prompt alignment	Analyze for Kezar & Eckel's Core Strategies + sensemaking Senge's 5 disciplines Dill's 6 activities (see Table 3)	Apply the 6 lenses through which to build systems understanding (see Figure 2)	Investigate the domains of system intervention & action (see Figure 3)
	Build relationships and structures among texts, organizational processes, organizations	Find evidence of organizational learning and of systems awareness	Surface institutional and organizational relationships and interdependencies within reports and discourses	Seek consequent actions Propose systemic processes for sustainability

Figure 4. Diagram of case study method.

to learn, to understand, to compare my own experience with that of others, to establish connections within a text and between texts. I read as a designer, practitioner, critical thinker, learner, and rigorous inquirer. While Clifford (1986) in his introductory chapter was primarily describing the rapidly changing field of ethnography, and this study is not an ethnography, his observations may apply here as well: “Insiders studying their own cultures offer new angles of vision and depths of understanding. Their accounts are empowered and restricted in unique ways” (p. 9).

I have a deep personal investment in this inquiry, introduced in the prologue. I have hypotheses about learning and its primary role in the experience and consequences of human being. I undertake a systems inquiry because I expect, not to find definitive answers, but to develop and offer possibilities for advancing the interconnectedness of human endeavors and the systems within which they take place. Necessarily this affects my choices in perspectives, interpretations, and proposals.

Non-generalizable Results

As a descriptive and exploratory case study, the project is not undertaken in order to provide generalizable results, and these are neither expected nor desired. The holistic systems approach in the search for evidence of organizational learning is not rules-based but is instead an open-ended inquiry; the stopping point may be when the inquiry reaches saturation, “in the sense that no more learning comes from the formal analysis and writing” (Harland, 2014, p. 1118).

Non-deterministic

Rather than seeking a linear or cyclic cause-and-effect, the study considers prompt-and-response cycles, where the response is highly influenced by numerous internal institutional components and processes and external pressures. Making sense of information and refining the research approach depends on ongoing evaluation and recursive processes, through simultaneously summarizing and interpreting the evidence, as suggested in Hancock and Algozzine (2017). And as Yin (2009) noted, a holistic case study design means it is possible that the orientation of the research may shift as the study proceeds, and “the evidence begins to address different research questions” (p. 52). I note that the research questions reflect a considered effort to articulate a systemic inquiry, and that

inquiry itself affects the questions. It is important to maintain a systemic perspective even as the inquiry shifts.

Time

Time restrictions have limited the number of institutions whose reports can be considered as well as the breadth and depth of the reports to be reviewed. For example, looking at how an institution develops through multiple accreditation cycles might have provided more system insight, but the number of cycles actually reviewed will be restricted to one.

Reliability of Reported Information

Determining reliably whether a really good report (a) is simply written by an eloquent and persuasive ALO, (b) is, as a self-study, biased toward narrating achievement, or (c) provides an accurate picture of the organization's *why* and *how* is a limitation. Yet this limitation is checked by the team visit, affirming the authenticity of the content (Hancock & Algozzine, 2017). I note that the team visit itself is subject to similar questions of authenticity; that WSCUC has voluntarily undertaken external evaluation points to the integrity of its processes.

Proposition Rather Than Prescription

The pragmatic emphasis on consequent and action, and the aim of using idealized systems design as part of the analysis, is speculative and thus might be seen as a limitation. But applied systems thinking as a practice is forward-focused and non-deterministic, and requires the ability to grapple with multiple possible paths and solutions. The aim is to discover possibilities through investigating how systems do (and do not) understand and design their relationships to their environments, not to describe probabilities or make prescriptions.

Summary

Chapter 3 grounded this investigation within systems theory and placed the inquiry within a pragmatic paradigm. This is a holistic, exploratory case study of two organizational systems, colleges and universities and their accrediting bodies, which have developed in response to the social enterprise of higher education. The primary source of evidence is institutional documents produced by the Western regional accrediting body, WSCUC, and IHEs within the region engaged in the reaffirmation process. The inquiry identifies the shared and distinctive values of systemic perspectives, seeks evidence for intentional leveraging of organizational learning as a productive intervention, and develops applied systems perspectives toward progress-oriented systemic connection between institutional learning and the accreditation reaffirmation process.

CHAPTER 4: RESULTS

Introduction

This study took an applied systems thinking approach to investigating social organizations in order to develop a synthetic perspective, one that supports pragmatism's focus on consequent phenomena. As a case study it looked for evidence of organizational learning in the related higher education systems of institutions and regional accrediting agencies. It used written documents as evidence of the extended discourse that is the reaffirmation of accreditation process. The documents were analyzed from a set of three perspectives in an effort to build a fuller understanding of the organizations.

A structural analysis perspective looked for structural qualities within the discourse and its elements. It looked for alignment of responses to prompts, for structure within a document that supports its purposes, and for relationships among elements that support intentional organizational structure. For this analysis, the institutional or interim report was reviewed for

- alignment with suggested organization of components in the corresponding WSCUC accreditation handbook or interim report guidelines,
- clarity of cross-referenced information, and
- reflective or concluding statements that have meaning with respect to the prior discussion as well as to the overarching principles of the self-study/reaffirmation process as articulated in the handbook.

A categorical analysis perspective considered the evidence of organizational learning that could be found by reviewing the set of documents produced by both WSCUC and the institution as part of the reaffirmation process.

The review applied categorical frames adapted from the core strategies identified in Kezar and Eckel (2002b), the five disciplines proposed by Senge (2006), and the six activities identified in Dill (1999). It looked for relationships and interdependencies developed in the content within and between documents.

A narrative analysis perspective considered each institution and its relationship with WSCUC through a set of six systemic lenses expanded from the three proposed by Banathy (1995). Banathy (1995) aimed to achieve “comprehensive” overview of a system by “superimposing” the images seen through his three lenses (p. 56). This study takes the position that multiple perspectives can provide better, though not comprehensive, understanding of a system.

Structural Analysis

Because the study’s data consisted of written texts that are parts of a much larger discourse among institutions and WSCUC, the structure of the texts and their interpretation could be examined for organization of parts, alignment of responses, and intentional, successful communication (reasonably inferred meaning appropriate to the discourse context).

Structural Aspects

Eight structural aspects emerged as salient: the WSCUC prompt to which the institution’s written text responded; the set of texts within the discourse; whether the institutional document adopted the order of the components as suggested in the handbook or the interim report guidelines; whether the suggested structure within response components was employed; the extent to which the four WSCUC standards are referenced in the institutional response; the extent to which WSCUC criteria for review (CFRs) are referenced within the institutional

response; how appendices supplemented the main text and the use of hyperlinks for context; and the achievement of communicative purpose.

WSCUC prompt. Three of the four main institutional documents examined were institutional reports (IRs) resulting from extended self-study as part of the institutional review process (IRP) described and defined in the 2013 handbook. The fourth was an interim report required in the commission action letter (CAL) that reaffirmed the institution's accreditation for 10 years, the maximum term, but identified three issues that the institution should report progress on at about the halfway point of that term. While this institution's previous IRP took place under the 2008 handbook, the interim report would follow guidelines and expectations in place under current policies and procedures, that is, the most recent handbook and contemporaneous policy or procedural changes.

The 2013 handbook notably varies from the 2001 and 2008 versions in its elevation of rigorous quality assurance for external audiences as the primary purpose of accreditation. At the same time it reaffirms the purposes of validating the institution's commitment to institutional integrity, mission-aligned continuous improvement, and the building of a culture of evidence, and providing feedback for accreditation process improvement.

The institutional documents demonstrated that each institution was responding to the standards and expectations articulated in the 2013 handbook.

Texts within the discourse. Each discourse included a correspondence between the institution and the accreditor. In the case of the two CSUs (CSU1 and CSU2) and one private institution (Priv1), the primary texts were the IRs and the consequent visiting team reports (VTRs) and CALs. The second private institution (Priv2) wrote its interim report in response to issues identified in its previous VTR and CAL. For each institution, the set of texts demonstrated a clear structure in

support of organizational reflection and institutional effectiveness improvement within the context of WSCUC core commitments and standards.

Components and suggested order. This aspect of structure serves to align accreditor and institution expectations with respect to the main institutional text and its contents. For an institutional report, an institution is required to address the components but not to use the suggested order; it is encouraged to tell its story in the best way it can. One of the nine components identified (Institution-specific theme(s)) is optional, and is listed as the eighth in the outline (WASC Senior College and University Commission, 2015). The guidelines for interim reports are presented as a form with suggestions for preparing a focused, evidence-supported report (WSCUC Interim Report Form, n.d.). In this case study, each institution's document adhered to the suggested order as the institution's compelling story was developed and communicated.

Suggested structure of components. The 2013 handbook and the interim report guidelines suggest, but do not require, a narrative approach to constructing a story within each component that might lend itself to an integrated story through the concluding section (WASC Senior College and University Commission, 2015; WSCUC Interim Report Form, n.d.). Two of the institutions, CSU1 and Priv1, used the suggested structure as the basis for the outline of each component. Priv1 modified the suggestion slightly to highlight reflection at the end of each inquiry; reflection played an important role throughout the essay, its component parts, and the supplementary exhibits. The CSU2 institutional report used a distinctive structure specific to each component in order to tell its story. The VTR developed a distinctive structure for its evaluation of the institutional essays, using the four standards, rather than the nine components, to outline its findings. The VTR affirmed that the components had been addressed by the institution and in fact

were being woven into institutional discussions. The structure of the VTR demonstrated that multiple possible perspectives can be used in evaluating the extent to which an institution manifests the core commitments and meets the four standards.

The interim report prepared by Priv2 used the interim report form for its structure and followed the suggestions for providing clear evidence to tell a focused story. The concluding section made clear how all three issues under review had been integrated into institutional processes, strategic planning, resource allocation, and implementation.

Referencing WSCUC standards. The 2013 handbook, like the 2001 and 2008 handbooks, first identifies the core commitments that each member institution makes as it engages in its mission. In 2001 and 2008, the two core commitments were to institutional capacity and educational effectiveness (Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges, 2001; 2008). The 2013 redesign presented a commitment to student learning and success, a commitment to quality and improvement, and a commitment to institutional integrity, sustainability, and accountability. The commitments are “the values underlying WSCUC accreditation, while the Standards build upon the Core Commitments, articulating broad principles of good practice” (WASC Senior College and University Commission, 2015, p. 8). The standards articulated in the 2013 handbook are “(1) defining institutional purposes and ensuring educational objectives; (2) achieving educational objectives through core functions; (3) developing and applying resources and organizational structures to ensure *quality and sustainability*; and (4) creating an organization committed to *quality assurance, institutional learning,*

and improvement” (p. 9). These standards are identical with those from 2001 except for the addition of the italicized words.

If the standards are broad principles, the criteria for review (CFRs) are specific statements of consideration in assessing whether an institution has fully adopted good practices. There are 39 CFRs across the four standards; because these are more precisely described and are associated with guidelines and policies, institutions may more directly assess their own achievement in these areas (see Referencing CFRs). Nevertheless, the 2013 handbook states that “references to the Standards of Accreditation and citations of specific CFRs are included, as appropriate, in the body of the report” (WASC Senior College and University Commission, 2015, p. 27).

In the three institutional reports examined here, component 2 included a discussion of the completed worksheet for “Review Under WSCUC Standards and Compliance with Federal Requirements,” included as an appendix in each report. Additionally, CSU1 illustrated how its strategic plan addressed and aligned with the four standards, and Priv1 provided an index cross-referencing via active hyperlink the exhibits and evidence it discussed in the worksheet under each standard. Both of these institutional reports demonstrated integration of the standards into their self-study process.

Referencing CFRs. As noted above, the 2013 handbook calls for appropriate citation of the CFRs within the report. The citations serve to ground the institution’s narrative in the descriptive language of the standards and help both the authors and the reviewers consider how and where the criteria are addressed. All three institutional reports included CFRs in appropriate sections in their tables of contents and after the appropriate heading in the body of the text. CSU2 provided additionally a list of CFRs indexed to the pages on which they

were addressed, giving an overview of the degree to which the self-study process manifested the CFRs. No explicit expectation of CFR citation is made in the interim report guidelines, yet Priv2 demonstrated the extent to which these criteria are integrated into programming and processes by citing appropriate CFRs within the sections addressing each of three issues addressed in the report.

Appendices to supplement the text. As an aspect of formal structure, appendices accompany many reports that institutions prepare and submit to WSCUC. Handbooks, policies, and processes are designed to engage institutions in reflective inquiry regarding what they intend to do, how they intend to do it, how they know whether that is working, and what they will do, based on evaluation of evidence, to improve. Crafting a story for a reviewing audience in addition to the internal organizational reflection requires careful attention to main points and to relevant supplemental information. All four institutional documents drew a thoughtful distinction between the central story and additional documents of interest. Appendices could be broadly categorized into providing contextual depth, presenting data, and addressing compliance. There was frequent overlap among the categories. IRs have two main compliance worksheets that are appended to the report and inform component 2. The interim report from Priv2 had no compliance piece. Priv1 provided the largest number of exhibits and links, using them to situate the institution in broader contexts of higher education, institutions with similar mission, response to its urban context, and its potential place in a scan of the emerging future.

Hyperlinks, used sometimes for appendices and sometimes within the main text, connected the report to a larger context of higher education and of impact within the world. CSU1 hyperlinked to other places within the text, which made moving among the components very easy, as well as to appropriate university

webpages and external websites of relevance. CSU2 hyperlinked within the main text to appropriate university webpages and to relevant external websites. Priv1 hyperlinked to exhibits that had been uploaded to the WSCUC Box site, to appropriate university webpages, and to relevant external websites. Priv 2's interim report did not have active hyperlinks to its appendices, but the interim report guidelines indicated that they should be uploaded to WSCUC as separate files. Most of the appendices identified were documents and reports that had been produced for internal institutional use rather than specifically for the interim report, and in that sense demonstrated the issues' integration into institutional initiatives, programs, and planning.

Communicative purpose. Written texts have the ability to convey meaning, to inquire, request and respond; this supports the structure of a discourse. The accreditation process, as institutions undergo review by a peer team and by the commission, depends upon strong and consistent communication. Institutional reports provide a major part of this communication. Their purpose is to demonstrate institutional engagement in the process, integrity and critical distance in the self-study, and a learning process that includes asking relevant questions about institutional effectiveness, identifying appropriate evidence, understanding what the evidence means, and deciding what to do in response. The institutional report tells the institution's story within the discourse about the commitments of IHEs and the standards of achievement that demonstrate those commitments.

The required concluding component of IRs was expected to support the narrative in this way. Each institution also used other elements to strengthen the communicative purpose. CSU1 provided a reflective and aspirational concluding section that recognized challenges ahead. Its section 7, on sustainability, identified

its response to change in the higher education context as addressing access, accountability, and accommodation.

CSU2 included the optional theme component to frame what it discovered about institutional distinctiveness during the self-study, namely that collaboration and innovation were driving forces for institutional improvement. Its final section reflected on the challenge and value of undertaking a self-study during a time of immense institutional change. The review of CSU2's IR also revealed a weakness in this structural aspect, as the focused component narratives tended to obscure the larger picture. The review confirmed the VTR observation that the community is eager for change and waiting to see the results of a new administration and reorganization. At the same time this may have contributed in the narrative to a sense of third-person perspective within the self-study, more so than in other IRs.

Priv1 provided a concluding section that was reflective, aspirational, and demonstrated an affinity for the self-study process. The prior components had been organized to conclude with a reflection, so the culminating reflection took an overview perspective. Communicative purpose was reinforced on the Priv1 website as it posted the full VTR draft when it was received, posted the president's written response to the VTR, and developed and posted an action plan to begin addressing recommendations even before the commission met to determine its action.

Priv2 concluded its interim report with a statement that tied opportunities for continued improvement to its new leaderships. It also showed how the three issues it addressed had been integrated into the strategic plan, and reflected upon its own organizational learning through the interim report process. The overall narrative was structured to directly address the prior issues while identifying the current and emerging context of the institution.

Results

Figure 5 presents the structural analysis not as a comparison between institutions but as way of indicating strengths within an institution's development of its narrative in the IRP.

Structural Analysis	CSU1	CSU2	Priv1	Priv2
Prompt	Handbook 2013	Handbook 2013	Handbook 2013	CAL 2012: 3 issues
IR VTR CAL as year-month	1408 1510 1603	1702 1710 1803	1803 1810 1903	1203 VTR 1207 CAL 1611 Int R
Suggested order of components	Yes	Yes	Yes	Yes (Int R guide); no ToC
Suggested structure of components	Yes	Difficult to discern consistently	Yes Modified	Yes Issue structure
Standards referenced	Strategic plan table 1, worksheet	Worksheet	Exhibits X-referenced, worksheet	not applicable
CFRs referenced	ToC, in headings	ToC, in headings, CFR index	ToC, in headings	19 times (though not required)
Appendices to supplement text, hyperlinks	22 / 6 components Contextual depth, data, compliance Hyperlinks within IR, to university website, external	37 / 8 components Contextual depth, data, compliance. Hyperlinks to university website, external	62 exhibits+49 links / 7 components Contextual depth , data, compliance. Hyperlinks to WASC box, university website, external	31 / 3 issues issue 1: 8 issue 2: 14 issue 3: 9 Contextual depth No hyperlinks; appendices as separate files.
Communicative purpose	Cpt 8 (final) is reflective and aspirational, recognizing challenges	Cpt8 defines theme of collaboration & innovation. Ch9 (final) reflects on self-study during change, on identity and distinctiveness	Cpt 8 (final) is reflective and aspirational	Concluding statement ties opps to new leadership; shows 3 issues tied into strategic plan; describes organizational learning
	Cpt 7 HE change response: access, accountability, accommodation	Narrative tends to obscure larger picture; it is the sum of its parts	Response to VTR posted with action plan; presidential response posted	Issue 1: 9pp Issue 2: 7pp Issue 3: 5pp
	Thorough response to prior WSCUC actions	The selfness of the study isn't always clear, perhaps due to major changes in leadership & structure -- eager & waiting to see.	Components 1-7 end w/reflection; 8 is reflection	Narrative is structured to directly address prior issues while identifying current context.
Darker color in a column indicates greater structural evidence				
Key: IR = Institutional Report, VTR = Visiting Team Report, CAL = Commission Action Letter, Int R = Interim Report, ToC = Table of Contents, Cpt = component, opps = opportunities				

Figure 5. Structural analysis of main texts.

Each institution's report has a distinct set of structural strengths that contribute to an evaluation of organizational learning, so each institution is identified with a distinctive color set to support the reader's focus on strengths within an institution's accreditation discourse. The text within the cells contains the most salient memoing information for that institution with respect to the structural aspect. For example, in the CSU1 cell for CFRs referenced, the text refers to locations (Table of Contents and in headings) within the institutional report.

Categorical Analysis

Characterizing Organizational Learning

This study's commitment to systems inquiry results in using multiple models and perspectives in an effort to identify organizational learning. Productive and intentional organizational learning allows an organization to acquire and employ new information in response to or anticipation of environmental change, using it to evaluate goals and processes and to improve them (Argyris & Schön, 1996; Garvin, 1993). Table 2 presented six approaches to looking at learning organizations.

This analysis adapted the five core strategies plus sensemaking that Kezar and Eckel (2002b) found in IHEs that were learning organizations: supportive senior leadership, collaborative and shared leadership, robust design of change processes including flexibility in future vision and proposed path of change, staff and faculty development opportunities associated with change, and taking visible action through activities for ongoing change. Kezar and Eckel (2002b) recognized that sensemaking at the organizational level tended to emerge when these core strategies were evident.

The analysis also used the five disciplines of a learning organization proposed by Senge (2006) as ways of reading the documents for organizational learning: personal mastery, the recognition of mental models, a shared vision within the organization, team learning as more than the sum of individual learning, and the development of systems thinking as an organizational process.

Dill (1999) provided six activities found in IHEs that were learning organizations: a culture of evidence, innovation in teaching and learning, internal observation and assessment of processes, external benchmarking, internal transfer of knowledge, and structural adaptations informed by evaluation of evidence. These activities and the prior strategies and disciplines were adapted into categorical frames used to examine the set of documents produced within accreditation processes for evidence of organizational learning.

Results

Using Kezar and Eckel's (2002b) strategies, Senge's (2006) disciplines, and Dill's (1999) activities to identify evidence of organizational learning, this round of examination found that the four institutions and the accreditor exhibited some of the qualities of each model. Considered in another light, no single model captured all the strengths of these higher education organizations, at least in part because they had identified overlapping yet distinct areas of focus. It is worth noting that Senge's five disciplines were not designed specifically for higher education organizations, while the frameworks of the other two studies were developed for IHEs. That the examination of WSCUC handbooks did not reveal organizational learning qualities such as supportive senior leadership, staff and faculty development, and innovation in teaching and learning is associated with the specificity of these qualities in organizational structures of colleges and universities (administration, faculty, staff).

Figure 6 presents the categorical analysis of document sets. It is designed to highlight organizational learning strengths found within a set of documents through the darker green in a cell. The Kezar and Eckel (2002b) approach surfaced the most IHE organizational learning. The Senge (2006) model most usefully revealed the intentional systems approach WSCUC used in redesigning the 2001 handbook. The text in the cells encapsulates where the primary evidence used in memoing was found. Final memoing charts for Figure 6 are found in Appendix A.

	CSU1	CSU2	Priv1	Priv2	WSCUC
Kezar & Eckel (2002b) core strategies + sensemaking					
1. Supportive senior leadership	IR, Sec 8, VTR	IR, Sec 9, VTR CAL C7	IR, CAL C5	VTR, Int R	
2. Collaborative/shared leadership	IR, Sec 7 & 8, VTR CAL C2	IR, Sec 7, VTR CAL C2, C8	all documents CAL C4 (R2)	VTR, Int R	2001, 2008
3. Robust design: future vision & path are flexible	IR, app 2.2, VTR (CAL R4)	VTR, CAL C4	Sec 7 & 9, VTR (CAL R1)	VTR, Int R	2001
4. Staff/faculty developmt opps w.r.t. change	IR, Sec 7, VTR	IR, app 2.1, VTR	IR, Sec 7, VTR± (CAL R2, R4)	VTR, Int R	
5. Visible action: activities for ongoing change	IR, Sec 7, VTR CAL C3 (R4)	IR, Sec 7 & 9, VTR CAL C3	IR, Sec 7, VTR CAL C6	VTR, CAL, Int R	1988, 2001 , 2008, 2013
+ Sensemaking	IR, Sec 8, app 2.2 VTR	IR, CAL	IR, Sec 8, apps VTR	VTR, CAL, Int R	2001, 2013
Senge (2006) five disciplines of a learning organization					
1. Personal mastery					
2. Mental models	VTR	IR, Sec 9	Sec 9, CAL C3	VTR±	1988, 2001, 2013
3. Shared vision	all documents CAL C1	IR, VTR, CAL C1	IR, Sec 7, VTR CAL C1, C7, R5	VTR, CAL, Int R	2001
4. Team learning	VTR	Sec 9, app 2.1 VTR	IR, VTR CAL C7 (R5)	VTR, Int R	2001
5. Systems thinking	IR, VTR		IR	VTR, Int R	2001, 2013
Dill (1999) activities of academic learning organizations					
1. Culture of evidence	IR, VTR (CAL R1, 4, 5)	IR, VTR (CAL R1, 3, 4, 5)	IR, Sec 7 & 9, VTR	VTR, CAL, Int R	2001, 2013
2. Innovation in teaching and learning	IR, Sec 7 & 8	IR, Sec 7, CAL C6	Sec 7 & 9, app 2.1	VTR	
3. Observation and assessment, internal	IR, app 2.2, VTR	IR, Sec 7, app 2.1 VTR±	IR, app 2.1, VTR CAL C2 (R6)	VTR, Int R	2001, 2008, 2013
4. External benchmarking	IR		IR, VTR, app 7.6	Int R	2001, 2013
5. Internal transfer of knowledge	IR, Sec 8, VTR	app 2.1 (VTR)	IR, app 2.1, VTR± (CAL R4)	VTR	
6. Structural adaptations based on 5 prior activities	IR, Sec 7, VTR CAL C4	IR, VTR, CAL C5	IR, Sec 7, VTR (CAL R3)	VTR±, Int R	2001, 2013
Grey: no evidence Green: darker indicates more or better evidence		Recommendations aligned to newness of leadership/era		VTR 2012, CAL 2012, Int R 2016	Note: 2008 essentially updated the 2001 handbook
Abbreviations: IR = institutional report, VTR = visiting team report, CAL = commission action letter, Int R = interim report Sec = section, app = appendix, C = commendation, R = recommendation Key: ± = positive and negative evidence, (text) = evidence of needed improvement, bold = very strong evidence					

Figure 6. Categorical analysis of organizational learning.

The categorical frame of personal mastery (Senge, 2006) was not an efficacious perspective in reviewing the documents. Chapter 5 considers how

personal mastery might fit into a systems inquiry that includes perspectives from direct observation of an organization and community in action. All of the other qualities from each of the three approaches usefully served as perspectives on organizational learning, for some or all of the five organizations, through document review.

Narrative Analysis

Characterizing Higher Education for Applied Systems Design

Banathy (1995) insisted that educational systems needed to change in response their changing context: a new, post-mechanistic worldview focused on managing complexity rather than managing things. Our systems inquiry into organizational learning in higher education adapts his concept of multiple models or lenses for observing different aspects of social systems, building a multi-dimensional system model which we can use for applied systems design (Banathy, 1995).

Banathy (1995) developed three lenses through which to examine social systems, and claimed that a comprehensive view considered that three perspectives at one time, layered together. The three lenses he proposed are adopted here: a system environment view examines the system and its relationship to its context, a functions and structures view looks within the system at its organization and processes at a particular moment in time, and a system through time view considers the system over a period of time (Banathy 1995).

This study uses three additional lenses to examine and understand the IHEs and their accreditor. The system-system relationship is used to look at the relationships between two (or more) systems, between the related systems and

their context, and between multiple elements shared between systems (networks). A material and information flows view examines the structures, processes, and interactions among elements in a system that support or hinder flows within a system and between a system and its context/environment. A view of concurrent and iterative inquiry processes identifies non-linear systemic processes designed to (1) inquire about possible futures, (2) productively co-occur with other processes, and (3) repeat for further inquiry, including as modified by prior action.

The six lenses comprise a narrative analysis perspective that considers each institution and its relationship with WSCUC through available texts.

Results

This examination required looking across the written discourse multiple times, each from a different perspective. The central effort focused on developing greater understanding of the system being examined. Figure 7 is arranged as a grid in part for the convenience of the reader. The researcher recommends looking at the figure's columns of color, each of which represents a systemic perspective evaluation of one institution and its relationship to WSCUC, with the final column representing that evaluation for WSCUC as a system itself.

Narrative Analysis	CSU1 + WSCUC	CSU2 + WSCUC	Priv1 + WSCUC	Priv2 + WSCUC	WSCUC
System environment (Banathy 1995)					
Functions + structures (Banathy 1995)					
System through time (Banathy 1995)					
System-system relationship incl. networked elements					
Material/information flows					
Concurrent/iterative inquiry processes					
Darker green indicates the view through the lens resulted in a clearer image of the system.					

Figure 7. Analysis of systems through multiple lenses.

The application of the six lenses resulted in distinct system values. CSU1 considered in its relationship with WSCUC appeared to have similarly clear perspectives across the models, and the models offered a similarly strong image. This institution has had a long record of successfully meeting or exceeding standards of accreditation, it has institutionalized continuous incremental improvement, WSCUC in its VTR has called its approach to financial management conservative and effective, and its functions and structures have developed to serve the institution and its mission as both evolve in response to environmental changes.

CSU2 considered in its relationship with WSCUC appeared to have focuses of similar clarity across the models, with one focus (system through time) providing a less clear image. The five similar models offered a moderately clear image. This institution has a shorter history and a shorter record of accreditation. As noted in the VTR, its current administration, now in its third year, followed a single presidency of nearly a quarter century. Banathy's (1999) admonishment that higher education needed systems thinking to replace earlier focuses on instruction and the functions and operations supporting it may be relevant when considering this institution's systems development. All current documents in this institution's reaffirmation discourse suggested that great changes were being made with the new administration, and the community appeared to have great enthusiasm for change.

Priv1 considered in its relationship with WSCUC appeared to have focuses of varying clarity across the models, with four providing a very strong clear image, one providing moderate clarity (material/information flow), and one somewhere between (functions and structures). This institution has had the longest history of successfully demonstrating accreditation standards among the four

examined, and within its IR and other documents noted how much it valued its productive and even inspiring (Priv 1 IR) relationship with WSCUC. It has institutionalized continuous improvement, which has occurred both incrementally and occasionally as an intentional, significant change. This general institutional perspective of a productive relationship for improving system sustainability appeared clearly in focus when applying the four lenses with the darkest green color. Yet even for an institution that intentionally benefits (by iterative inquiry) from its relationship with its regional accreditor, systemic weaknesses may remain. Priv1 recognized in its IR that internal communication (information flow) was not uniformly effective, and this was confirmed in the VTR and CAL. The functions and structures lens revealed a system with both strengths and opportunity to make structural or functional changes that would support system sustainability in response to changing environments.

Priv2 considered in its relationship with WSCUC appeared to have focuses of similar clarity across the models, with one focus (system-system relationship) providing an even clearer view. The five similar models offered a strong clear image. This institution has had a record of successfully meeting or exceeding standards of accreditation of similar duration to CSU1. It has institutionalized incremental continuous improvement and organized structures and functions to support concurrent and iterative inquiry processes. It formally networked the WSCUC core commitments into the mission of its office of institutional effectiveness and strategic initiatives.

A consideration of WSCUC as a system interacting with the systems that are its member institutions as well as the other regional accreditors yielded focuses of similarly very strong clarity across the models of system environment, system-system relationship, material/information flows, and concurrent/iterative inquiry

processes. The other two models, system through time and functions and structures, provided similarly strong clarity in these perspectives. WSCUC is an organization supporting quality assurance and institutional effectiveness among its member institutions, and itself a member of the Council of Regional Accrediting Commissions (C-RAC). Its handbooks, guidelines, and policies provided consistency in purpose, principles, and the application of principles. Its history of revising handbooks through a process of inclusive redesign, engaging internal stakeholders and external experts, supported a clear commitment to its own organizational learning as a sustainable open system. Memoing charts for Figure 7 are found in Appendix B.

Research Questions

The three research questions that these analyses were developed to answer were: (1) How have institutions of higher education reflected upon and described their intentional pursuit of sustainability and improvement as an organization in their self-study process, specifically in the institutional report, to their accrediting body, WSCUC? (2) What is the relationship between the conclusions reached in the institutional report and the commendations and recommendations made by WSCUC? and (3) How do institutions and their accreditor (WSCUC) use the reaffirmation process to understand and support their own organizational learning?

The answers to questions 1 and 3 emerged through the three distinct methods of looking at organizational learning and systemic qualities within the texts individually and as discourses. None of the three analyses yielded a direct answer to question 2. Each question and the answers that emerged from the results of analysis are more fully considered below.

Emergent Answers

Question 1. Because this systems inquiry was interpretative, in other words, in search of meaning, the answers to question 1 focus on finding meaning related to organizational sustainability and improvement in the institutional report; one institution's systemic endeavors were examined through an interim report (Priv2). The 2013 handbook identifies a required component to address sustainability, both in its fiscal sense and in the sense of "preparing for the changing higher education environment" (WASC Senior College and University Commission, 2015, p. 27). The final required component asks for a concluding section that reflects on the self-study process and proposes plans for improvement. These two sections provided productive starting points for the search for appropriate meaning as evidence. The first component, introducing the institution, its context, and its prior responses to WSCUC recommendations, provided additional evidence as the institution described itself and its self-study processes. In Priv2's interim report, a shorter and more focused document, the concluding section pointed directly to its intentional pursuit of sustainability and improvement, and its ability to tie together its approach to the three issues being addressed supported an interpretation of an organization intentionally responding to its environment and improving its processes.

Of the analyses, the communicative purpose aspect of the structural analysis (see Figure 5) most directly surfaced evidence of intentional system sustainability and improvement. The three institutions undergoing the full institutional review process recognized and responded to WSCUC's stated goal of the process, "the improvement of student learning, student success, and institutional effectiveness" (WASC Senior College and University Commission, 2015, p. 23).

In the categorical analysis (see Figure 6), the Kezar and Eckel (2002b) core strategies for transformational organizational change provided a holistic gauge of each institution's ability to act with organizational intention for system sustainability. The four institutions examined had different strengths among the five strategies, and consideration of the evidence found organizational sensemaking emerging or developed.

Question 2. The three analyses surfaced institutional awareness of strengths and weaknesses, opportunities and challenges, in all self-study reports. In the Western region it is general institutional knowledge that VTRs and CALs include commendations and recommendations. The concluding sections of the self-study reports (three institutional reports and the one interim report) were written with this awareness. In considering the interim report of Priv2, this document responded to WSCUC commendations and recommendations from a prior VTR and CAL, and so had a very direct relationship due to the ongoing nature of the accreditation process and the extended discourse.

Other parts of the institutional report in which institutions consider their challenges and areas for continued improvement included the introduction section and the appendix (listed as 2.1 or 2.2) with the completed worksheet for Review under WSCUC Standards and Compliance with Federal Regulations. These appendices arose as points of evidence throughout the categorical analysis.

One straightforward answer to question 2 is that there is no predictable relationship between the concluding section of an institutional report and the commendations and recommendations in the responding VTR and CAL. This suggests that the question was not well formed with respect to an inquiry based in an applied systems approach. Two observations support this suggestion: the researcher's insistence in chapter 3 on a process that was not seeking deterministic

or causal answers, and the learning gained through the careful, multi-perspective analyses of the texts in each discourse.

It became clear to this researcher that, from an institutional perspective, it is the relationship between the VTR and the CAL that is usefully meaningful. Let us consider a process that transpired as it was designed to, with a team of well-prepared peer reviewers following evaluator guidelines, and an institution prepared to host the team and to discuss lines of inquiry generated in the team's offsite review of the institutional report. It is reasonable to expect the commission to base its commendations and recommendations on those carefully crafted in the VTR in response to the team's onsite immersion in the institutional community. In the case of Priv1, its institutional response to the VTR draft was to begin acting immediately on the recommendations, recognizing them to be valid areas for organizational improvement. It had leaders and action plans in place, working on those improvement areas, when the CAL was posted.

Addressing the commitment to interpretative and non-deterministic systems inquiry, a better research question might have been, "What is the relationship between the institutional report and the VTR?" The VTR is built from the institutional report, the team's evaluation of its completeness and accuracy based on the visit, the team's assessment of the institution's response to any lines of inquiry developed in the offsite review, and the team's evaluation of the organizational culture it interacts with. Even the revised question is missing important perspectives on the institution as an open, sustainable system, what its expectations for commendations and recommendations in response to the review are, and how it receives and responds to the CAL.

Question 3. The three analyses, in their focus on the discourse of related texts produced during the reaffirmation process, provided multiple perspectives on

how institutions and WSCUC use the process to understand and support their own organizational learning. The structural analysis examined the construction of the institutional reports and the one interim report. The evidence for structural aspects generally supported a reasonable interpretation of intentional communication through writing to demonstrate institutional effectiveness and improvement, awareness of the core commitments and standards, and ability to plan for organizational sustainability. In particular the evidence of strength in communicative purpose grounds this conclusion with respect to the four IHEs.

The categorical analysis looked at each organization's set of documents. In the case of the IHEs, these included a report written by the institution and two WSCUC documents, a VTR and a CAL. With respect to WSCUC, the examination focused on the four handbooks. The categorical frames used for this analysis all derived from the literature on organizational learning. Kezar and Eckel (2002b) developed the core strategies for transformational change for IHEs based on studies of institutions undergoing systemic change. Senge (2006) proposed the five disciplines of learning organizations based on his work with organizations from across sectors. And Dill (1999) identified the six activities of organizational learning based on studies of IHEs that he determined were engaged in organizational learning.

The core strategies of Kezar and Eckel (2002b) most usefully framed the reaffirmation discourse for the institutions. Senge's (2006) five disciplines (excepting personal mastery) proved to most usefully describe evidence from WSCUC's series of handbooks and their evolution over time. The activities identified by Dill (1999) appeared to be supported by evidence from the four institutions and WSCUC, offering a particularly strong perspective on CSU1's organizational learning.

A narrative analysis was developed by applying different system lenses as perspectives on an institution's accreditation discourse with WSCUC and on WSCUC itself. The analysis suggested that some discourses revealed a set of matched or nearly matched focal strengths for the institution and its relationship with WSCUC, such as for CSU1 (six lenses with strong focus), CSU2 (five lenses with moderate focus), and Priv2 (five with strong focus). Priv1 had four lenses with very strong focus, but also one lens each with a focus at strong or moderate. WSCUC, which has explicitly identified as a learning organization (Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges, 2001, p. 7), also had four lenses that provided very strong focus, and two with strong focus. If the narrative analysis helps develop a more comprehensive view of a system by looking at it from multiple perspectives, we might then use that multi-dimensional system model and see how it helps us understand the categorical and structural analyses.

CSU1. CSU1 in its relationship with WSCUC provided the most consistent system perspectives and all were strongly focused. It had very strong evidence of organizational learning in two of Kezar and Eckel's (2002b) core strategies, two of Dill's 1999 activities, and one of Senge's (2006) five disciplines, along with strong sensemaking. We found strong evidence in communicative purpose and the referencing of standards as structural aspects of a system. CSU1 appears to have used the self-study process and the iterative reaffirmation cycle to understand and support its organizational learning, and WSCUC confirmed this with a 10-year term of accreditation and an interim report to address three issues out of four recommendations.

Priv1. Priv1 in its relationship with WSCUC provided the strongest focus through four of the lenses, and exhibited strong focus through functions and

structures and moderate focus through material/information flows. It had very strong evidence of organizational learning in two core strategies, moderate in three others, and strong sensemaking (Kezar and Eckel, 2002b). It had uniform strength across Senge's (2006) disciplines (excepting personal mastery) and very strong evidence of shared vision. Organizational learning was also evident using Dill's (1999) activities. Its documents provided strong evidence in communicative purpose, the referencing of standards, and IR appendices and exhibits for contextual depth as structural aspects of a system. Priv1 explicitly acknowledged using the self-study process and the iterative reaffirmation cycle to understand and support its own culture of evidence and inquiry (Priv1, IR concluding section). WSCUC confirmed the institution's ongoing commitment to organizational learning with a 10-year term of accreditation and an interim report to address the six recommendations in the CAL.

CSU2. CSU2 in its relationship with WSCUC provided fairly consistent system perspectives of moderate focus, with the system-through-time lens offering less clarity. Its evidence of organizational learning ranged from emerging to very strong in the core strategies, with emerging sensemaking. Evidence for Senge's (2006) disciplines was emerging for mental models and team learning, and moderate for shared vision. There was not yet evidence of systems thinking in its reaffirmation discourse. Organizational learning evidenced through Dill's (1999) activities was moderate or emerging, though there was not yet evidence in external benchmarking. Its institutional report provided strong structural evidence in CFRs referenced and in some areas of communicative purpose, and moderate evidence across most other structural aspects of a system. The evidence was not consistent for one structural aspect, suggested structure of components. CSU2 expressed newfound enthusiasm for self-study and evidence-based inquiry in its IR, affirmed

in the visiting team's report. WSCUC acknowledged the institution's recent progress and change processes toward organization learning, and approved an 8-year accreditation term with a special visit to address the seven recommendations in the CAL.

Priv2. Priv2 in its relationship with WSCUC provided fairly consistent perspectives of strong focus, with the system-system-relationship lens offering very clear focus. It had very strong evidence of organizational learning in two core strategies, moderate in the remaining three, and moderate sensemaking. It had strength in two of Senge's (2006) disciplines (team learning and systems thinking), very strong evidence of shared vision, and moderate evidence of recognizing mental models. Organizational learning in evidence through the final six activities ranged from emerging to moderate, suggesting that Dill's (1999) model did not valorize Priv2's strengths. There was strong evidence in communicative purpose, referencing of CFRs, and appendices used for contextual depth as structural aspects of a system, even in the shorter narrative of an interim report. WSCUC had already affirmed the strength of Priv2's organizational learning in the CAL that approved a 10-year term of accreditation with an interim report to address three areas for further development, as identified in the letter. While there official correspondence following an interim report is not part of the public record, published actions taken at the subsequent WSCUC meeting confirmed that the commission received and accepted the interim report (WASC Senior College and University Commission, 2017).

WSCUC. Finally, let us consider the system model developed for WSCUC through the narrative analysis. Four perspectives provided very strong, clear focus on WSCUC as a system: system environment, system-system relationship, material and information flows, and concurrent and iterative inquiry processes.

The two other perspectives, system through time and functions and structures, provided strong focus. WSCUC, in its deliberative and intentional redesign processes for the handbooks and the accreditation process, drew from research on organizational learning and systems thinking to engage member institutions and educational experts in an extended applied systems design process (R. Wolff, personal communication, March 6, 2019). The categorical analysis, using three approaches to characterizing learning organizations, showed that Senge's (2006) model provided a strong frame for understanding WSCUC's organizational learning, while the two models developed for IHEs provided some strongly relevant strategies and activities, and others that aligned with functions and structures specific to IHEs. WSCUC had very strong evidence in the core strategy of visible action and in sensemaking, in the discipline of systems thinking, and in the activities of structural adaptations and supporting a culture of evidence. The structural analysis was not applied to WSCUC, though its structural aspects depended on networked elements from the 2013 handbook and the interim report guidelines (order of components, structure of components, standards and CFRs referenced, the use of appendices, the expectations for and evaluations of communicative purpose of the institutional document). Organizational learning was in abundant evidence through WSCUC's ongoing commitment to improvement of IHEs, improvement of the way accountability and quality assurance are demonstrated, and improvement of the accreditation process itself.

Summary of Findings

The three approaches to interpreting and understanding the collected data provided multiple perspectives on the engagement of an organization in learning. The narrative approach produced a system model that comprised six viewpoints of, or lenses on, the system. Three of the lenses, and the idea that layered

viewpoints provide a more comprehensive system understanding, were adopted from Banathy (1995). In this analysis, distinct models arose for each of the four institutions and WSCUC and pointed to emerging and developed system integration.

The categorical analysis sought to surface evidence of organizational learning through the application of three models from the literature: Kezar and Eckel's (2002b) framing of five core strategies, plus sensemaking, for transformational change in IHEs; Senge's (2006) five disciplines of a learning organization; and the six activities of a learning organization identified by Dill (1999) in his study of IHEs. This framing work produced insight into each institution's organizational learning strengths and weaknesses compared to itself, as well as demonstrating that the applied models foregrounded different aspects of learning organizations. The categorical analysis did not produce, for any institution for any model, uniform achievement across the model's multiple elements.

The structural analysis examined the collected data as very specifically as texts, as acts of communication in response to another act of communication, a prompt. The prompt was provided by an evaluator (WSCUC, the regional accreditor) willingly engaged by the institution. The communication acts, then, included expectations, requirements, and critical and creative opportunities. The structural aspects examined were evidence of choices made by the institution to meet expectations, to tell a compelling story based on provided evidence, and to convey active engagement in productive inquiry. Even at the level of structural analysis, evidence of intention in processes and practices surfaced, reflecting institutional position with respect to the usefulness of the process.

Each approach yielded a partial answer to research questions 1 and 3. Examining partial answers and looking for relationships among them suggested that a systems inquiry is a productive but complex way to understand organizational learning in higher education, within individual higher education institutions, and between IHEs and their accreditor. This systems inquiry also revealed the limitations of research question 2 that became apparent through the analysis; see the discussion in Question 2 above and in Chapter 5.

CHAPTER 5: DISCUSSION AND SYNTHESIS

Overview of the Chapter's Organization

The study arose from the sense that systems theory could provide descriptive and actionable insight into higher education institutions, their accreditors, and the relationship between them. It identified organizational learning as a key quality of social systems that supports system sustainability. It sought to find evidence that the reaffirmation process could be built upon, and encourage intentional development of, organizational learning for IHEs and their accrediting organization. A systems analysis then used a collective of perspectives to look for evidence in the texts produced for and in the reaffirmation process. The analyses yielded insight into different sets of qualities each institution and the accreditor, WSCUC, appear to have developed that are associated in the literature with organizational learning.

This chapter discusses the sets of qualities resulting from the analyses and what we might learn from them, and engages in applied systems design to consider possible consequent actions, that is, planning for improvement and a sustainable system. It recognizes limitations that became apparent during the study. It considers implications for further research and continuing systems analysis, and offers a reflection on efforts to make sense of complex systems.

Patterns, Principles, and Key Relationships

Patterns

Broad patterns emerged in and between the analyses. Textual evidence from the regional accreditor tended to support perspectives on organizational learning and systemic awareness across the analyses. Of the organizations

examined in this study, WSCUC most explicitly identified organizational learning as a value, one that it was developing itself and was simultaneously encouraging in its member institutions. Textual evidence for Priv1, which identified itself institutionally as a learning community, strongly supported perspectives adapted from Kezar and Eckel (2002b) and Senge (2006), and from the narrative analysis. Evidence for CSU1 consistently and strongly supported perspectives across the narrative analysis and provided the strongest perspectives in activities adapted from Dill (1999). The evidence from Priv2, which came mainly from a focused interim report rather than a comprehensive institutional report, supported strong perspectives in the core strategies, the five disciplines, and across the narrative analysis. Textual evidence from CSU2 provided a perspective on the emergence of organizational learning and systemic awareness across the analyses.

Principles

A central principle of this inquiry is using multiple perspectives, frames, analyses, or models to try to understand each organization as a social system. The inquiry is about the system being examined, not about a comparison of systems or a comparison of frames or perspectives. The value of working with a collective of perspectives is that it allows the inquirer to recognize differences along varied dimensions while also recognizing that the salient dimensions for a given system make it distinct. An example of differences along a dimension might be the extent to which the documents revealed an intentional consideration of an institution's relationship with WSCUC (see Figure 7, system-system relationship), while an example of salient dimensions for Priv1 might include the core strategies and sensemaking from Figure 6 and the four strong system perspectives from Figure 7, considered with the two activities in Figure 6 and the single perspective in Figure 7 with the least evidence. Thus another principle is focusing on the distinct

system, a concept building upon the chapter 1 review of the distinctiveness of mission and of how an institution achieves it. The Council of Regional Accrediting Commissions itself confirms that the autonomy and diversity of institutions contribute to the high quality of the American higher education system (Council of Regional Accrediting Commissions, 2018). This inquiry, if it attempted a deterministic analysis and assumed that finding the common denominator(s) was the goal, would be misaligned with WSCUC's carefully designed accreditation policies and processes that respond to and support institutional distinctiveness.

Key Relationships

A systems understanding of some key relationships emerged in the process of rereading the texts and applying the multiple perspectives. Key relationships of interest are communication and the transfer of knowledge, time and institutional sensemaking, and leaders and teams. The first two are relationships between processes, and some of the emerging observations are associated with the categorical and narrative analyses.

Communication and transfer of knowledge. Communication as a system process was examined through the structural analysis, which focused on properties of text, through distinctions across perspectives in the categorical analysis, and again through distinctions across the focuses resulting from the narrative analysis. Transfer of knowledge is a specific form of communication, a system process that was considered using Dill's (1999) "transfer of knowledge" activity in the categorical analysis and across the narrative analysis lenses.

Interestingly, it became clear that it was possible for an institution or WSCUC to have mixed strengths and weaknesses in communication and in transfer of knowledge. This suggests that each might be productively considered a

complex subsystem itself within the larger social system(s) being observed. Communication operates both within a system and as information flows into and out of a system or between systems, especially in the accreditor/institution relationship. Within a system, communication depends on individuals, organizational culture, and the structures that do or do not support it. As a flow into and out of a system, it depends on the same three internal elements plus corresponding environmental elements, over which the system may have less influence. In the case of a system-system relationship, ideally it would be a networked element, which requires mutual alignment and trust between systems. In even this cursory description, complexity begins to emerge.

Considering transfer of knowledge as a specific process, while Dill (1999) was focused on the transfer of knowledge relevant to academic quality and the improvement of teaching and learning, in this study it was more broadly construed as pertaining to mission-pertinent transfer of knowledge. IHEs have been observed to have specific difficulty transferring knowledge between disciplinary areas (Dee & Leišytė, 2016; Dill, 1999), due in part to academic structures that value autonomy in departments and larger units (schools, colleges), sometimes at the expense of developing ways to share good practices. Many institutions, including those examined here, have not specifically developed structures to support knowledge transfer across and within the institution, not just across academic departments. WSCUC designed the self-study process to offer that structural opportunity to transfer knowledge, and in the context of the institutional or interim report there is evidence that it occurs. There is also evidence that in some institutions it slows down after the commission action, if we consider a slowdown, post-reaffirmation, in the posting of data and other information updates on some institutional websites. On the other hand, it may also be the case that institutions

are using internal communication to support transferring knowledge among internal constituencies. The onsite visit conducted during the IRP is designed to observe how knowledge and information transfer occurs on campus.

Considering the relationship between communication and knowledge transfer, we must recognize that information is commodified, and controlling that commodity, even or especially in higher education, may be an institutionally determined political and/or business decision. It may also be a manifestation of organizational culture and a response to organizational change. Systems might carefully consider the effect on communication and especially the transfer of knowledge when leadership positions are newly filled, and when positions are created or eliminated.

With respect to system-system communication and transfer of knowledge, the WSCUC 2013 handbook urges institutions to “move from productive internal conversations about improving learning to engaging more deeply with other institutions and higher education organizations” (WASC Senior College and University Commission, 2015, p. 3). This perspective supports recognizing systemic relationships among communication, transfer of knowledge, and awareness of/response to environmental context.

Time and institutional sensemaking. Time restrictions were cited as a limitation in chapter 3, and the more important aspect of limited time turned out to be the breadth and depth of an institution’s self-study process. In all cases the focus was limited to one institutional or interim report and the VTR and CAL that followed the institutional report or preceded the interim report. Yet greater depth in the history of an institution was always present, as reports consistently referred to progress and changes since the last reaffirmation event and VTRs and CALs also referred to prior issues and recommendations. The references to earlier issues

and efforts, however, did not convey how the institution was making sense of them at the time. So to the extent that an institutional report reveals sensemaking, at least the writing team's, this study had no way of observing whether it emerged or changed over time, finding at best hints of reported sensemaking. Such hints might be found in Priv1's IR, in the consistent reference to confirmed community commitment to institutional mission, in the reflections at the end of each component, and in the concluding component, when it recognizes how reaffirmation processes have fostered the community's continuous improvement quest since initial accreditation more than six decades ago. The VTR for Priv1 provides additional hints when it commends the university for the candor with which it discusses achievements and challenges in its IR and for its responses to reaffirmation prompts over time.

Banathy (1995) had proposed looking at a system through time as one of the three models for a comprehensive view. Kezar and Eckel (2002b) suggested that institutional sensemaking occurs as part of institutional transformation when individuals (presumably enough for critical mass) are receptive to rethinking the institution's identity, feel supported in their efforts, and engage with the new institutional agenda. I have been reminded consistently in conversations with colleagues and mentors that organizational change takes time. So while an institutional review process spans at least a couple of years, the self-study report can only be a pointer to sensemaking, if that forms part of the institutional reflection on organizational identity and change. Here the principle that a systems inquiry requires taking many points of view reminds us that, however many different perspectives we try out, there are others we have not yet applied or even conceived of.

If sensemaking is a quality that arises in learning organizations, it was very difficult to observe through examination of the written discourse. There is no component in institutional reports that asks for this perspective, and as perhaps a function of organizational culture it might more readily be found in the “touch” aspect of the IRP, the onsite visit and teleconferences that make the IRP a richer, more robust process (R. Osborn, personal communication, Nov. 6, 2018).

Let us consider the two CSUs in this case study for examples of the complexity of time, sensemaking, and how they are related. CSU2, at the time of its institutional report and subsequent onsite visit, was just emerging from a 20-plus-year administration, with an all-new cabinet on campus, some members of which were on interim appointments, and a CSU-system-wide imperative to improve retention and graduation rates (Graduation Initiative 2025). What did this mean for community members who had been at CSU2 for a decade or more? How did people who had been there for a long time affect the sensemaking of those who were new to the institution? Organizational culture faced opportunity and challenge with the change agenda, and sensemaking at best might have been emerging. CSU1, on the other hand, had tradition and a timeline of achievements in its institutional report. Its structures were less amenable to major change, but they had been proven to be effective as they had changed incrementally over time. Nevertheless the administration promoted a change agenda focused on being even better at its strengths. For example, the institution has been seeking to improve faculty research achievements, first in an earlier initiative to become a Carnegie Research-Intensive university, but more recently by refocusing the goal toward regionally relevant and engaged applied research projects that engage the campus with the community. With a much larger set of constituents, including faculty, staff, administration, students, family, alumni, and university supporters, was

change happening visibly enough to support sensemaking of this institution as it moved forward? The IR provided glimpses of general campus community support for the agenda and participation in reflection and planning. In the faculty research example, the community embraced the shift when it resulted in cohort hiring to support identified regional research areas and in increased and institutionalized research funding allocations for faculty.

Sensemaking, then, responds to who changes and what changes, how fast and intense the changes are, what the changes are responding to and the time over which they have been considered, participation in planning, and whether there's some critical mass in the organization that is struggling to make new sense and release the old sense. As Kezar and Eckel (2002b) pointed out, it emerges when other organizational learning processes and strategies are in place, in a system, over time. In the case of CSU1, the documents revealed strengths in collaborative and shared leadership, visible actions for ongoing change (resource allocation), shared vision for institutional mission, a strong culture of evidence, and incremental but consistent structural adaptation.

Leaders and teams. Kezar and Eckel's (2002b) core strategies include two leadership frames, supportive senior leadership and collaborative/shared leadership; both are process-oriented. Senge's (2006) team learning discipline is also about process. Many of the observations that led to this inquiry originally seemed to point toward a study of leadership in higher education institutions. Ultimately a systems approach accommodated the complexity I encountered, yet issues of leaders and leadership were an integral part of that complexity. In an early systems analysis of IHEs, Birnbaum's (1988) cybernetics of the academic institution focused on applications for leadership:

One of the best ways for leaders to develop complicated understandings is to be aware of the various conceptual models of organization and leadership so that they can generate both multiple descriptions of situations and multiple approaches to solutions. That is why the only thing more useful than a good theory is a lot of good theories. (p. 209)

On the other side of the equation, Argyris and Schön (1978) developed their action perspective on organizational learning by focusing on the complexity in issues around motivating individuals and teams within organizations to act in productive ways. Senge's 1990s work proposed team learning and shared vision as disciplines of learning organizations. Senge (2006) also recognized that, "Individual learning does not guarantee organizational learning. But without it no organizational learning occurs" (p. 131).

In considering social systems, we must recognize that among the system's elements are the individuals within it. They are not homogeneous, and as complicating as it might be, we must recognize that they can exercise free will. It is here that personal mastery, the discipline of personal growth and learning (Senge, 2006), might serve as a perspective. While it would be extremely difficult to observe each individual through this focus in order to develop a more comprehensive model of the system, it is worth contemplating what we might discover. We would likely find different commitments to personal growth and learning, and perhaps it would be possible to propose sets of qualities of these commitments. Perhaps patterns would emerge that might point to how individuals along the commitment continuum engage in productive processes such as team learning or leadership, or destructive processes like erecting barriers to information flows like communication and the transfer of knowledge. Certainly the analysis of the textual discourse of the reaffirmation process did not provide evidence amenable to applying such a perspective. Actual individuals, though not necessarily the abstract individual, made only brief and usually symbolic

appearances in the texts, as the primary purpose was always evaluation of the organization.

Finally, bearing in mind the systems design principle that the whole is greater than the sum of its parts, and understanding emerges through “putting things together rather than taking them apart” (Ackoff, 1979, p. 100), we must always choose among perspectives to take as we seek to understand a system. Looking at each individual for personal mastery may not be a worthwhile perspective. Our inquiry should include asking whether any particular practice within a system offers a useful point of view of the system.

Applied Systems Design

Figure 4 included applied systems design as the final column of processes to develop multiple perspectives. It is discussed here because applied systems design is synthetic, and proposes rather than describes or prescribes. Banathy’s (1995) model of comprehensive educational systems inquiry was modified for this study. The central system image focuses now on the organizing perspectives and the core commitments of a higher education organization, adapting the principles crafted within the Western region for WSCUC and its accredited institutions. Banathy’s (1995) four “complementary domains of organizational inquiry” (p. 57) included analysis and description, which we considered through the narrative analysis. His systems design domain, which was to use design methods for inquiry and action, is reinterpreted here to be the integrating inquiry across all domains, represented in the outer circle; in other words, the design principles and processes inform all domain inquiries. The other two domains are systems management, which inquires into operations and change processes, and implementation, which inquires into the development of the system by and through design.

Design processes. The design processes represented in the outer circle of Figure 4 do not fully define design; they are among the process practices that support systems design, and they do not preclude other practices and processes. As a set they help reveal how design differs from deductive, inductive, or abductive processes. Design as inquiry looks for proposals to test rather than seeking an answer, and the testing always leads to iterative rounds of inquiry. Collaborative inquiry, especially in transdisciplinary teams, offers more perspectives, and diverse perspectives positively influence the number and quality of proposals. The generation of multiple and multifarious proposals is divergent ideation, and requires multiple perspectives to then converge on a set of proposals of great potential. Proposals are collaboratively considered through many what-if scenarios, from which pilots or trials can be generated for implementation. An interesting if unsettling aspect of design inquiry is that it offers no full closure on a systems question, though a particular trial or pilot might demonstrate it does not conduce to system sustainability.

System sustainability is at the heart of applied systems design. The inquiry is not simply about understanding but about proposing action to allow an intentional, living social system to pursue its purpose, even as environment and systemic relationships change and mission adjusts. The recognition that IHEs needed to respond to such environmental changes and challenges, and not just consider their own inner workings, underpins the focus in the WSCUC 2013 handbook on external engagement.

Possible actions. The understanding of the systems examined here is limited by the kind of evidence or information considered: the institution's report and WSCUC's visiting team report and commission action letter. And despite the fact that care was taken to consider the evidence through many lenses, all of those

lenses were employed by one set of eyes, the researcher's. While the documents may have been produced as part of collaborative inquiry, this review of them was not. Nevertheless, as part of a limited applied systems design approach, potential opportunities for changing system operations and processes emerge.

Each institution has its own areas for potential action. Considering CSU1, for example, WSCUC's specific recommendations align with a focus on systems operation and management, as well as with implementation. CSU1 described its own design proposal for building assessment tools, yet recognized it had not been fully implemented. Managing the complexity of concurrent and iterative intra-institutional processes might lend itself to open-ended collaborative inquiry, though a system might determine this is a structures and functions issue. Applied systems design would suggest that even a structures and functions solution might best be considered a pilot, or a test, to determine how this approach affects other system elements and processes.

Priv1 offers different areas for potential action. WSCUC recommendations noted two different structural weaknesses and the need for improved information flows. Applied systems design might suggest the need for a multifocal perspective, including the element of time, to seek processes or flows that are not supporting improvement or are even impeding it. We might interpret another systems emphasis in the CAL as a design issue calling for development and integration of system components (strategic goals and objectives, more robust and productive alumni communications) that are future-focused.

One action that each institution could engage in a distinctive, institution-specific manner is a collaborative inquiry, with a team comprising internal and external perspectives, to consider how and why the recommendations from the

CAL and VTR provide an integrated system diagnosis, rather than just a numbered list of areas to work on.

In consideration of applied systems design for the accrediting agency itself, a primary focus must be the challenges in its environmental context, and responses to those challenges that might fundamentally alter its purpose or its structure (Council for Higher Education Accreditation, 2019; Studley, 2019). In this inquiry, the system-system relationships between WSCUC and the six other regional accrediting agencies is foregrounded, as the environmental challenge posed by the National Advisory Committee on Institutional Quality and Integrity (NACIQI, an advisory committee to the U.S. secretary of education), the Education Department, and other parts of the federal government would affect each accreditor and its relationships with the institutions it accredits similarly. Applying systems design to this challenge would suggest bringing together the kind of collaborative and transdisciplinary team WSCUC convened for the process to redesign accreditation and the 2001 and 2013 handbooks. A radical suggestion might include redesigning NACIQI to be that kind of team.

Limitations

Here we review some of the limitations of applied systems design and of this systems inquiry in particular. The previous section touched on the complexity of considering the individual as an element in the social system and on the need for collaborative inquiry teams. The relationship between these two issues is briefly considered.

The Problem with People

The section heading is a blunt way of recognizing that individuals have distinctive personal, interpersonal, and political qualities and dispositions, among

many others, and these may affect the systems in which they are members and the subgroups of the systems in which they are members. The effect may be insignificant or quite meaningful. Leaders may have a desired set of qualities and dispositions, and yet their leadership may be ineffective if teams do not coalesce, or organizational subgroups reject the leader, the leadership, or the organizational goals. Individuals may act alone, or they may form subgroups like coalitions or teams that share objectives or goals (Cyert & March, 1959/2011). In an institution of higher education or in an accrediting agency, both of which are subsystems of larger systems and both of which contain subsystems, an individual is likely to be a member of multiple subgroups. What considerations, then, should go into forming a team for systems inquiry and design? How do subgroup objectives and goals and individual qualities and dispositions affect the collaboration, the ability to develop team learning, and the ability to engage in systems thinking? The radical suggestion of redesigning NACIQI to be a collaborative system inquiry and design team outlines this sharply: the political nature of appointments to such committees and how this delimits the kind of inquiry they can engage in is itself a mess or wicked problem.

Systems inquiry into living, social systems is most certainly not premised on people as a problem. It must, however, grapple with the rich complexities of open systems, some of which arise from the nature of their definitional elements: human beings with self-determination and free will.

The Problem with Question 2

In chapter 4, the research questions were revisited to see whether the case study had answered them and what kinds of answers were found. Question 2 asked about the relationship between conclusions reached in the institution's self-study report and the commendations and recommendations made by WSCUC. The

answer was that there was no meaningful alignment between self-study conclusions and WSCUC commendations and recommendations. Conclusions are institutional acknowledgement of strengths and areas to improve, and WSCUC commendations and recommendations affirm that an institution has strengths and areas for improvement. The main problem with the question is that, by asking about the relationship between conclusions and recommendations, the question presupposed that one would reasonably exist. The conclusions come from an internal perspective, and recommendations come from an external perspective. The internal systems inquiry, in fact, requires the external perspective on its self-study to better understand its environment and its context, and this necessarily follows the self-study and on-site visit.

The researcher is reminded of the design principle of open-ended inquiry. Open-ended inquiry focuses on the goal of learning through observing and asking and testing and repeating, rather than on the goal of the answer. It includes questioning the questions and digging deeper into what one might be looking for, not just looking at. Having engaged in multi-perspectival processes of observing and interpreting the systems through the evidence, the researcher would propose to institutions that there is systems design value in recognizing how the internal system perspective (self-study and reflection) and the important external perspective of WSCUC together provide a more comprehensive view of the system, its institutional learning, and its opportunities for aiming more directly at institutional sustainability. With respect to organizational learning, the better question might ask how the institution responds systemically to commission recommendations. In other words, the differences between the institution's conclusions and the commission recommendations could and should launch the next round of systems inquiry for the institution.

Missing Elements

An applied systems designer must continually inquire about the inquiry itself. In the case of this case study, decisions about delimiting the project resulted in missing elements from the reaffirmation discourse and missing perspectives that would have yielded a richer systems model.

The decision to limit evidence to written texts made it possible to examine WSCUC and four different institutions for organizational learning. However, it left out key elements of the reaffirmation process, especially those that involved interpersonal interaction through the onsite visit and offsite teleconferences. It did not consider the interactions within the institution during the self-study process and in preparing for and hosting the team visit. It also did not include the interactions among visiting team members prior to, during, and following the visit. Observing interactions among visiting team members, WSCUC staff, and the commission would have provided additional perspective on organizational learning, both for the institution in review and for WSCUC.

When the study was still in early development, a conversation about systems theory with Deborah Hammond provided depth, breadth, and new avenues for inquiry into systems. It also confirmed that a meaningful systems analysis would not be a quick heuristic. A strong suggestion, and a road not taken this time, was to examine a single institution and its relationship with WSCUC over multiple reaffirmation processes. Observing more closely how organizational learning develops and changes over reaffirmation cycles could provide a clear lens on system self-determination and sustainability.

Both of these missing elements, non-text-based interactions and communication and multiple reaffirmation cycles, might have provided greater evidence of sensemaking within an institution. Sensemaking as an organizational

quality tends to emerge when institutions engage in core strategies (and sub-strategies, which were not within the scope of this project) for transformational change in academic institutions (Kezar & Eckel, 2002b). A clearer sense of sensemaking would be evidence supporting organizational learning in IHEs.

Learning Unrecognized

A final limitation serves as a reminder that applied systems design, organizational learning, and continuous improvement are purposeful when the system intentionally engages in them. An external observer interprets certain kinds of information as evidence of certain qualities. The peer review process does this in accreditation as well as tenure and promotion. Faculty members interpret student products and performance as evidence of learning. The value of learning, of productive change, is in the intentional use of learning by the system (organization, organism) to aim for a positive future.

Priv1 wrote most directly about engaging in inquiry for the purpose of learning, or intentional change for improvement and sustainability, defining its organization as a learning community. Two other institutions mentioned learning as a community or institution, and one did not use the term at all. Yet the multiple perspectives through which each institution was observed, distinct from the prompts and components of the institutional and interim report, revealed evidence of organizational learning in areas identified as key qualities or indicators.

If an institution improves its system functions and sustainability by engaging in processes through which it changes, even if the change was not the driving intention (if, for example, it was done out of compliance), does it count as learning? Perhaps we look to see if the institution recognizes the change as resulting from the process and being of value. We might also want to know if the institution inquires into why the change worked and looks to build on or extend

the learning. As it becomes an intentional quest for system improvement, it looks more and more like organizational learning.

This researcher, partly in response to a dissertation's formal structure, engaged in extended academic inquiry into organizational learning. It is likely that not all academic community members who contribute to self-study for reaffirmation have done so. Organizational or institutional learning may not be a term that has great meaning or import. Developing intentional institutional engagement in processes by which the institution learns and aims for a sustainable future is clearly what WSCUC hopes its institutional members practice through self-study. A continued practice that endures beyond the reaffirmation process and through changes in personnel could reasonably be considered organizational learning, even if the institution does not call it that.

For all the observation, examination, and proposing of evidence that indicates organizational learning, the value, to the institution, is in future action.

Potential for Future Research and Inquiry

Higher education is a complex social enterprise supporting the pursuit of post-secondary learning by students who will use the learning to help society succeed. This investigation took a necessarily limited perspective on a set of institutions of higher education and their accreditor, looking at the individual systems and the relationships between the accrediting agency and the institutions. In particular, this study looked for organizational learning, an intentional process developed by a social system to support its sustainability. As an open-ended inquiry, the study posed more questions than it answered. It also offered additional perspectives for systemic inquiry within that large and complicated social enterprise.

This particular systems inquiry focused on WSCUC and the 4-year institutions it accredits. Obvious extensions of the inquiry include studying whether other accrediting agencies and the institutions they accredit also support organizational learning through the reaffirmation process. It is also clear that IHEs and accrediting agencies have important relationships with additional systems. A systems analysis of contextual or environmental relationships between IHEs, accrediting agencies, government bodies, regional, national, and global economies, K-12 education systems, and international higher education would help IHEs understand more about contextual challenges and opportunities. Emerging systems that could serve as connections between IHEs and the employment sector, such as the Quality Assurance Commons and the Strada Institute, could be served by a systems inquiry and applied systems design.

Developing intentional organizational learning between institutions offers an area for pragmatic and applied systems design, a kind of action inquiry. The WSCUC 2013 handbook encouraged this system-system relationship, and the WSCUC's educational programming is designed to support inter-institutional learning. The posting of visiting team reports and commission action letters at wscuc.org allows institutions to learn from evaluation processes at peer institutions. Especially when coupled with institutional reports, which many WSCUC-accredited colleges and universities make public, a very rich picture of how reaffirmation works beyond one's home institution broadens the reach and value of systems inquiry.

This systems inquiry, as noted earlier in the chapter, was limited by using only the text-based discourse of the reaffirmation process. Including the other forms of discourse and interaction, such as conversations, in-person or teleconferenced meetings, and onsite visits would provide a richer understanding

of system elements (functions, processes, culture, capacity for change) and of how the reaffirmation process supports organizational learning. Likewise, an inquiry across multiple reaffirmation cycles could support an institution's ability to consider how system processes and values shift over time, and to develop greater intentionality in system design and implementation.

This inquiry required developing multiple ways of looking for organizational learning in an institution of higher education, using it as a signal of the systemic health and sustainability of the institution. It did that by looking closely at institutions where it seemed likely that organizational learning would, in fact, be manifested during the reaffirmation process. Yet the systems inquiry approach might prove most useful for institutions that do not yet manifest institutionalized systems thinking and organizational learning. That is, an institution could adopt the systems inquiry/multiple perspectives approach to identify its systemic weaknesses, and then apply systems design to address its organizational barriers, gaps, and nonproductive (possibly even destructive) practices. Extending this application of inquiry, it might be useful for institutions, the commission, and the commission's visiting teams to recognize that, where there are issues that come into perspective during the reaffirmation process, these are very often a systems problem. Understanding CAL recommendations as a whole should provide greater leverage for institutional change toward sustainability than addressing them one by one, as the sum of the parts. Articulating recommendations as the basis for ongoing systems inquiry might better support an institution's organizational learning.

Reflections

Being immersed in five system narratives over a period of many months has increased my respect for what WSCUC and its member institutions of higher

education aim for and move toward. I have learned an extraordinary amount about how difficult it is to manage complexity and productive concurrent and iterative processes. I have found inspiring initiatives to address institution-specific issues in each reaffirmation discourse. The systems inquiry has also helped me recognize just how limited one individual's perspectives are, despite a continual effort to gain new views. The image of the camera obscura (see Figure 1) is an apt reminder that we are limited by our perceptions, by our positions, and by the short amount of time we have to try to make sense of it all.

The more I studied the WSCUC handbooks and documents supporting evaluators, report writers, and commissioners, the more I recognized them as a collaborative team effort, as a give-and-take among between related systems (including the institutions, the other regional accreditors, and the federal government), and as an intentionally future-oriented guide to sustaining and improving higher education. The institutional review process implements WSCUC's principled commitment to evaluating each institution for its ability to articulate, evaluate, and achieve its specific mission in its specific circumstances and insisting on the importance of the formative value of that evaluation.

A creeping suspicion arose as my inquiry proceeded, that perhaps I was simply repeating what WSCUC had already achieved: a systems analysis of IHEs. I have settled on yes and no. WSCUC has, indeed, developed a process for institutional review that is a systems analysis. It includes many, many elements, not all studied in this investigation and probably not all listed in the following: the self-study the institution undertakes, the writing of the institutional report, the sharing of the report with a visiting team of peers that provides feedback, other interactions between the institution and the visiting team, the preparation for the site visit, the visit itself, the team drafting of its report on site, the team's exit

meeting on campus, the sharing of the VTR draft with the institution, some back and forth on any errors of fact or exposure of proprietary information, any institutional response to the VTR, the commission's consideration of institutional accreditation history and the current documents, the institution's opportunity to speak to the commission panel prior to the commission action, and sharing of the commission's decisions through the CAL. Each element provides a different perspective, and it is the consideration of all the perspectives not just as a sequence but as model of the system that informs the commission action. Yes, this is a systems analysis, and given the consequent actions proposed in the CAL and considered and implemented by the institution, it is a systems inquiry.

The realization that the set of processes just described paralleled those I developed for this investigation should have come earlier. Once I recognized it, I began to consider how alike certain other evaluation processes are. Academic program review is potentially a systems analysis, as is peer review for promotion and tenure, as are the assessment of a student's performance and the assessment of student learning outcomes, mentioned in the Learning Unrecognized section of Limitations. I propose that these move from being potential systems analyses to actual ones when they are undertaken not as distinct, deterministic steps that add up to a grade or a rank advancement, but when they are recognized as providing partial support for a system, an endeavor, that is greater than the moment or the evidence in the moment. These are evaluations of an open, living system with purpose and objectives, and it learns, improves, and has positive impact. I also propose that a systems analysis becomes a systems inquiry when those enquiring learn from having done so, whether within or external to the system. This is the great power of contemplation and reflection when practiced in self-study. For example, the systems analysis value of a teaching philosophy might accrue to peer

reviewers, who weigh whether intentional improvement of teaching effectiveness is taking place. The systems inquiry value, on the other hand, might support the faculty member who, by crafting the philosophy, interrogated why they do what they do, and how they will design and implement new perspectives to become better. For their peer reviewers, it may be learning how others reflect on feedback and use it to create the next version of learning experiences.

And no, I was not merely repeating or redesigning the reaffirmation process. The systems analysis and inquiry I engaged in was not evaluating whether institutions met the standards, but whether the process supported the development of organizational learning in the institutions and WSCUC. The system-over-time lens may help us understand more, as would a longer look at sensemaking and whether it changes within the systems. Could the set or subset of the perspectives applied here be of use to institutions as they undertake their self-study? Perhaps practicing different perspectives throughout the self-study, as evidence for component responses is gathered and considered, could help the institutional team inquire more meaningfully. Do we see different ways these components might be related? Are these the right connections? Yes, and – what else?

I opened with the recognition that systems are a way we make sense of experiences, observations, and ideas. Making sense of systems is complicated, non-deterministic, and, as far as I can tell, permanently open-ended. This investigation offers a practice of continuous pursuit and refinement but provides no conclusion. Yet the inquiry, my quest for new ways of seeing and considering, has lost none of its appeal.

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APPENDIX A: CATEGORICAL ANALYSIS MEMOING CHARTS

WSCUC handbooks	1988	2001	2008	2013 rev. 2015
K&E				
1. Supportive senior leadership				
2. Collaborative/shared leadership		p.viii user's guide, p5 Core Cmtmt	p.iv user's guide	
3. Robust design: future vision & path are flexible		p3 redesign principle 6 p5 accred always needs to adapt p8 P5 develop systems of inst. review/eval adaptive to inst. context/purposes		
4. Staff/faculty devlpmt opps w.r.t. change				
5. Visible action: activities for ongoing change	Preface: recs for imprvmt are welcome	p7 WASC as a Lrng Org; mult apprch fr solict info fr cont imprvmt	p.iv Comm welcomes suggtn for imprvmt	p2 Comm welcomes suggestions for imprvmt
+ Sensemaking		Redesign process		Redesign process
Senge				
1. Personal mastery				
2. Mental models	p1-2 In order to assist inst in determining their ed effectvns, the Com has recognizd 4 major purps of accred	p4 accrd process functions to promote/sustain HE special role, while provdg assranc to public that IHE continue to warrant public trust/support. p5 framing device of core cmtmts		p4 overriding purpose is to assure stakeholders that an inst. has been rigorously evaltd and that it meets or exceeds criteria
3. Shared vision	?p120-1 Outcomes of self-study process	p3 6 principles for redesign p36 Outcomes of Accred Process	p25 Outcomes of Accred Process	p23 The IRP: goal is imprvmt of stdnt lrng, stdt succss, inst efectvns
4. Team learning		p8 Purpose 2 promoting deep institutional engagement. p16 prmry purp o accred revw is to draw inst into inquiry, stimlt deep engmt w/ed effectvns	p2P2 backpedal (no "deep"), but otherwise similar purposes	
5. Systems thinking		p3 Comm values, p8 P3,5,6		p29 MQID, CFR2
Dill				
1. Culture of evidence		p8 P4 promoting w/in institutions a culture of evidence		p4 accred proc designed to build cult of evdnc, provide feedback
2. Innovation in T&L				
3. Obsv/assmt internal		promotion of outcome assessment	promotion of outcome assessment	promotion of outcome assessment
4. External benchmarking		p2 changing context fr inst accred		p3 w/these revisions, move from productv intrnl convrstns to engaging more deeply w/other IHEs & HE orgs
5. Intrnl xfer of knowledge				
6. Structural adaptations	9 stds, 41 subsections, each subsection has multiple parts	p3-4 Comm values/cmtmts p ix,4-5 new processes+structures 2 core cmt inst capcty, ed effectvns 4 stds, 42 CFR	core cmt, stds same as 2001	3 core cmt: studt lrng+succss, quality+imprvmt, inst integrity, sustnblty, acctbly. 4 stds, 3,4 slightly modified + quality. 39 CFR

CSU1	IR 2014	IR section 7 & concluding section (8)	IR appendices	VTR 2015	CAL 2016 4 commendations 4 recommendations 10 yr, interim report
K&E					
1. Supportive senior leadership	PCHRE 2p23	PCHRE, ASPIRE 8p74 atmos change & innov		p7 new team to ensure stability + progress p17 presidential cmtmt to studnt success	
2. Collaborative/shared leadership	1p19-20 prep for review	p65 shared gov, exec com. IT senior team & comm p66. Be bold, be nice. energy p76		p27 crit role shared govc	C2 leadership created open & inclusive planning process
3. Robust design: future vision & path are flexible	GE asst p11-15		app 2-2 rev under WS stds	p3 roadmap based on stratplan+campgn	R3
4. Staff/faculty devlpmt opps w.r.t. change	3p26, 1p10	p65-66 org excellence, CSALT, TILT, p73		p13 indivl + institutnl knowledge learnng opps	
5. Visible action: actvities for ongoing change	6p57, response to prev rev; 1p11-19	mitigate financl probs p67, capital campgn p68 p70 HE context p73 fac/staff devlpmt		p7 intentional addressed gaps using assmt actvts	C3 grad rate and equity gap achievmts, collab btwn AA and SA; R3,4
+ Sensemaking	1p16-17, 19-20	8p74	app 2-2	p6-7, p18 embedded in culture	
Senge					
1. Personal mastery					
2. Mental models				p10 expand fac devlpmt to pt fac, p30 pt fac eng	
3. Shared vision	1p19-20 prep for review	student success p76	app 2-2	p11 ILOs	C1 disciplined focus on mission
4. Team learning				all constituents involved in self-study process p6 mission shift p8	
5. Systems thinking	5p53, 6p62			p11 enhance studnt lrng; p21 gap reductions; p24 26 admin efficiency	
Other Evidence					
1. Cultr evidence	permeates document , OIE, 6p62			p7 OIE, LAT, commun p20 student support	R1, 4
2. Innovation in T&L	TILT 1p10, CSALT p66	TILT, CSALT p66			
3. Observation and assessment, internal	2p22-24, thru-out		2.2Self-review & process	p7 OIE, LAT, commun, p14 org learning	
4. External benchmarking	4p36, 38				
5. Internal transfer of knowledge	OIE throughout	internal dashboards p74		p12-13 OIE reports	
6. Structural adaptations	Tech infrstrctr p10-11, fac cohort hiring p17 Assmt strctr p59	integration of OIE p66		p19 devlpd infrstrctr	C4 Sound financial mgmt

CSU2	IR 2017	IR sections 7, concluding	IR appdc	VTR 2017	CAL 2018
	Theme component (optnl): innovation & collaboration	Section 9 is concluding		p8 "Need to strengthen assmt activities is not a new theme."	8 commendations 7 recommendations 8 yr, special visit
K&E					
1. Supportive senior leadership	1p10 revitalized under new pres; stratplan in 17-18	9p48		p3, p11 +	C7 pres fosters collab & engmt
2. Collaborative/shared leadership	4p24 fac are charctrd by engmt govnc processes (-)	7p41 APARC		p12+	C2 ASPIRE, C8 senate willngns t work w new admin
3. Robust design: future vision & path are flexible				p3 - IR drafted during period of transition, p4 + visit showed	C4 cmtmt to strat plan & algn resources
4. Staff/faculty devlpmt opps w.r.t. change	6p34 training for new PR, involve all fac&staff		2.1 std 3 + fac opps, - staff opps	p12	
5. Visible action: actvities for ongoing change	5p28 stretch math	7p40 resource algnmt w strat goals, p41 AA; 9p48		p12 Music Ctr	C3 Music Ctr integration
+ Sensemaking	8p43				C7, 8
Senge					
1. Personal mastery					
2. Mental models	5p28 stretch math	9p48 identity			
3. Shared vision	2p13 open communication & refocus institution, 8p43-44			p3 +, p13 -	C1 community
4. Team learning		9p48 self-study learning	2.1 std4 collab effort	p13 - IT, diversity, SP+budget	
5. Systems thinking					
Dill					
1. Culture of evidence	6p37			p3 moving toward, p6 using g&r data, not learning data, p15 R&A, p16 aspirations	R1, 3, 4, 5
2. Innovation in T&L	2p11 HIPs	7p42 FacCtr			HIPs
3. Obsv/assmt internal	6p34 robust PR&assmt process	7p41 AA	2.1std3 cmtmt t use data tools	p3 -, but also noted better than before	
4. Extrl benchmarking					
5. Intrnl xfer of knowldge			2.1 std2 info t stdnts, std1 t faculty/admin	p6 - diversity+soc just examples	
6. Structural adaptations	1p6 org restructuring, 2p11 progress chart, 5p28 SA			p12 +	C5 realgnmt of IT resources

Priv1 "learning community"	IR 2018	IR sct7, 9	IR appendices	VTR 2018	CAL 2019 10yr int re
IT tools improve communication, efficiency, integrity	Ability to say "further work is needed"			Candor noted.	7 commendations 6 recommendations 10 yr, interim report
K&E					
1. Supportive senior leadership	2p15, 2p24				C5
2. Collaborative/shared leadership	2p12 steering cmte, 23 magis (shrd gov Q)	7p71 magis project	2.01 Std4q3	p10 – no senate p33 C4, p33 R2	C4, R2
3. Robust design: future vision & path are flexible		7p69 annual bdtg plan to support innovation, 71 magis 8p74 magis, climate survey		p7 assmt cultr emerging, p31 nimble EM+budgeting R1 StrPlan goals shorter than 20 yrs	R1
4. Staff/faculty devlpmt opps w.r.t. change	2p15-16 adj fac, 20 fac+staff, 24-25 fac, 6p54	7p71 FLCs		p16 fac, p21 fac/staff/BoT, p33 R4	R2, R4
5. Visible action: actvities for ongoing change	2p15, thruout. Probs ID-ed, actions taken (p21)	7p72-3 new initiatives		p14, p19, p26 CIPE	C6
+ Sensemaking	3p27	8p73-75	magis project	p5-6, p12-13, p20-21	
Senge					
1. Personal mastery					
2. Mental models		8p74 accred as service to institution			C3
3. Shared vision	3p28 cmtmt to diversity + social justice informs everything	7p70-1		p5 campus-wide commitmt p9, p12, p20	C1, C7 R5 communication
4. Team learning	1p5-9, 4p42			p10	C7 BoT R5
5. Systems thinking	2p12 reaccrd+magis, 3 IT tools to improve transfer-area needs				
Dill					
1. Culture of evidence	2p14 developing	7p70-1, 8p75		p11, p26 CIPE	
2. Innovation in T&L		7p71 FLCs, 72 ETS, 8p75	2.01 Std3q2		
3. Observation/assessment internal	1p11 self-study never ended, 2p17, 6p62-63		2.01 Std1+2q2	p5,6 forthright, candor	C2 R6 alumni
4. External benchmarking	1p5, 4p38, 5p47-48			p8 intntl study, p14, env.scan ap. 7.6	
5. Internal transfer of knowledge	2p13-14,17,25 needs work		2.01 sum issue communctn + deccsn-mkg	p26-27 but p31, 32 -, p34 R5	R4
6. Structural adaptations	2p17,19,21,24,26; 6p54,58	7p66-9 alignment of master plan, enrollment plan, annual operating budget		p16 decentralized assessmt, p19, p26 CIPE, p33 C6	R3

Priv2 welcoming, cooperative community	VTR EER 2012 (2008 hdbk) inst proposal May 2008, CPR Oct 2010	CAL 2012 (2008 hdbk) 10yr, interim report revise core curriculum, refine PR process, coordinate/assess diversity initiatives	Interim Report 2016 (2013 handbook)
K&E			
1. Supportive senior leadership	p14 Pres Strat Direction inc core curr		Other issues p26 new leadership team, positive changes, recognizing opps for growth, p28 provost, dean of CAS
2. Collaborative/shared leadership	p7 Univ Assmt Cmte, p13-14 work on Core Curriculum, p15 SA prof+AAfac working together, p27 C2		T2 Ctr Inclusion&Diversity, university-wide divisions, mapping, assessment
3. Robust design: future vision & path are flexible	p22 recommendation to design forward on student support for at-risk students		T3p23,24 PR adjusts for ext-accred+online progrs, process undergoing refinement. Concl p27 board-approved strategic plan incorporates 3 issues
4. Staff/faculty devlpmt opps w.r.t. change	p8 faculty, p15-16 SA staff devlpmt		T2p16 FLCs to support D+I course development & implementation
5. Visible action: actvities for ongoing change	p6 high level of activity+progress since CPR	p1 innovative lrng space is model for strategic+inclusive action	T2 Ctr for Inclusion & Diversity, Strategic Plan for Diversity & Inclusive Excellence
+ Sensemaking	p8-9 assessment of student learning has become a university-wide endeavor that is now evidence-driven...noteworthy example of how an institution embraces a challenge, owns it and fashions it in ways most useful for its own campus culture	p1 para4 cohesiveness among students, faculty, staff, admin, & board	T1p5, p12; T2p15 fig2, p16 diversity in core curriculum; concluding stnt p27
Senge			
1. Personal mastery			
2. Mental models	p20 –approach to diversity is confined /constrained by current mental models p23 – admin white privilege		
3. Shared vision	p3 confirm active manifstn of values, p16 SA+AA	p1 cohesiveness found on campus p2 R1 lack of agreed-upon articulation	T1p8 core curriculum, fac philosophy p27 Conclusion – process as helping vision
4. Team learning	p8-9 COMS asmt plan, p10 meta-asmt, p11 PR learnng, p25 learnng space		T1 core curr
5. Systems thinking	p10 meta-asmt, p13 continue to consider relatnshp btwn LO asmt & PR, p17 – div, p25 learning+space+tech	R2 make connections btwn outcomes asmt + PR + resource/gov decisions R3 sim: difficult to understand conxn	T1p12 core curr implmtn+asmt plans, T2 tie D+I into univ strategic plan (I+D Assoc Prov co-chairs institutional strategic plan)
Dill			
1. Cultr evidence	p7 substantial progress, p15 SA asmt, p28 C3, C4	p1 major strides	T3p25 closing the loop in PR, MOUs based on evidence
2. Innovation in T&L	p23 fac-devlpd training for fac+staff, p25 learnng space, p32 C11		
3. Obsv/assmt internal	Unv Assmt Cmte, OIR, Ctr Ed Exclnc		T1p12 core curr pilots for evidence, adaptation
4. Extrl benchmarking			T3p24 NSSE for Info Lit
5. Intrnl xfer of knowledge	p15 cross-disc dialogues		
6. Structrl adaptations	p16-18 - diversity efforts are many but uncoordinated, p30 C8 Univ Assmt Cmte		T2p14 CID to cohere diversity initiatives

APPENDIX B: NARRATIVE ANALYSIS MEMOING CHARTS

Narrative Analysis	WSCUC (handbooks, evaluator guides, CALs, VTRs, website)
System environment (Banathy 1995)	Developed and evolving. Handbooks respond to HE context, political context, feedback from institutions. Principles and processes in guides and reports/letters align with handbook.
Functions + structures (Banathy 1995)	Clear, recognizable structures. Transparent functions. Commission is elected, uncompensated; membership changes. Staff are employees. Public and institutional input on policies (inc handbooks) is sought. Communication (website) updated frequently. Staff are responsive to email and telephone inquiries.
System through time (Banathy 1995)	Handbooks demonstrate development and response to changing context. Newsletters demonstrate environmental scanning, from institutional level to national/international perspective.
System-system relationship including networked elements	Role in C-RAC, working relationship with NACIQI, relationships with regional institutions and the regional public. Core commitments expressed as networked elements; four standards; mutual recognition of other accrediting agencies' decisions; commissioners from institutions; educational functions; leadership development.
Material/information flows	WSCUC moved online early. Official electronic submissions support communication with institutions and information flow among institutions, review teams, and WSCUC staff. WSCUC aims for transparency and so has published visiting team reports and commission action letters online since 2012. Its 2017-19 strategic plan is posted on its "About Us" webpage.
Concurrent/iterative inquiry processes	Processes for revising handbooks includes extended engagement of institutions and public, drafts and redrafts. Peer review for accreditation visits supports development of reviewers' home institutional inquiry. Extended engagement with difficult national issues around HE and accountability.

Narrative Analysis	CSU1 + WSCUC
System environment (Banathy 1995)	Developed, continues to evolve. CSU1 IR clearly responds to prior issues while recognizing the current context and planning for emerging challenges. CSU1 website demonstrates institutional resource commitment to mission-focused continuous improvement and quality assurance.
Functions + structures (Banathy 1995))	Accreditation discourse reveals an institution developing complex functions and structures to support educational effectiveness and communicate public accountability.
System through time (Banathy 1995)	Accreditation discourse demonstrates a long-term meaningful engagement (including prior cycles) between institution and accreditor in developing capacity and processes for sustainable success as a public IHE.
System-system relationship including networked elements	CAL demonstrates appreciation for CSU1's disciplined focus on its mission, inclusive planning, positive results, and sound financial management. CSU1 cognizant of continuing changes but identify them as in the handbook rather than in the self-study process (IR p. 75). General recognition that continued change supports academic quality, student success, institutional mission. VTR notes self-review, aligned to IR components, is intentional and inclusive, results in clear initiatives with timelines. Strong collaboration between academic and student affairs for student success. Substantial institutional effort to ensure quality assurance processes are in place and data is accessible and clear.
Material/information flows	Embrace of Tableaux for infographics and dissemination of info to more constituents. VTR notes that institutional research reports effectively inform decision-making. Assessment result reporting to internal stakeholders supports institutional improvement.
Concurrent/iterative inquiry processes	VTR commends reflective and analytical institutional self-study. Continued improvements in LO assessment and program review (and more needed). Exceptional effort to collect and analyze data and disseminate reports. Conservative financial admin has resulted in a very efficient campus. VTR suggests business plan to align with strategic plan. Decentralized, concurrent assessment within programs.

Narrative Analysis	CSU2 + WSCUC
System environment (Banathy 1995)	Institution has committed to campus-wide strategic planning and alignment of resource allocation (CAL). VTR used four standards to organize its report, rather than components. Institution is aware of its internal condition of rapid change during rapid external change in HE. Institutional identity emerging through self-study and being articulated in vision/value statements (IR, VTR). One CAL/VTR recommendation focuses on system-environment: defining what it means to be an undergrad or grad student at <u>this</u> institution.
Functions + structures (Banathy 1995)	CAL commended tangible results in integrating music ctr into campus & community, leveraging resource; high impact practices. VTR noted that data re. retention and graduation are used to inform decisions, but data re. student learning outcomes is not. CAL/VTR recommendations (6 of 7) focus on developing structures and functions.
System through time (Banathy 1995)	VTR noted significant leadership change – first new president in over 20 yrs. Gaps in assessment of student learning and program review remained from last review in 2010. During visit, Institution demonstrated enthusiasm for reflection and change.
System-system relationship including networked elements	Continued focus (WSCUC and institution) on developing and institutionalizing processes for evaluation and continuous improvement based on eval results. VT recognized that lines of inquiry (developed during offsite review) and commendations & recommendations crossed all components, so organized VTR into 4 standards.
Material/information flows	CAL commended fac gov for willingness to work w/new leadership – willingness removes barriers to info flow. Institutional recognition of need to eliminate administrative barriers that don't support students and faculty. VTR noted that not including grad and completion programs in MQID work might mean they are not included in strategic planning and budgeting discussions.
Concurrent/iterative inquiry processes	Strategic planning, structural change, Graduation Initiative as concurrent projects. Effort to adopt and support evidence-based evaluation processes across campus, not just academic programs. New willingness to engage in ongoing inquiry toward organizational sustainability (IR, VTR).

Narrative Analysis	Priv1 + WSCUC
System environment (Banathy 1995)	Well developed, ongoing. Priv1 IR component 1 included history & context; made clear it values relationship w/WSCUC. History of accreditation at univ website. IR demonstrated relationship to other univs w/similar mission, to specific urban context, to emerging 21 st century challenges/opportunities. VTR noted the institution has identified potential vulnerabilities through self-study, is candid about opportunities and foreseeable challenges. Institution prepares annual environmental scan for internal planning discussions (IR section 7).
Functions + structures (Banathy 1995)	IR described successes and continuing responses to issues from prior cycle. On-campus working groups w/broadly inclusive representation formed to address ongoing issues like communication. Strategic framework with four transformative directions, in response to VTR recommendations, will include roadmap for communication of implementation. Layers of leadership teams inter-communicate (BoT, Leadership Team, Cabinet, Provost's Council, Deans Council, Council of Associate Deans – section 7) but information is not always disseminated beyond. CAL noted “collaborative spirit and resourcefulness of cross-institutional leadership teams” (p. 2). CAL's 6 recommendations concern functions and structures.
System through time (Banathy 1995)	VTR noted institutional responses to prior cycle have been substantive, thorough, and engaged. Retention and graduation rates have responded positively to institutional focus and initiatives (CAL). Institution has proactively responded to financial issues (CAL).
System-system relationship including networked elements	Institution has “deep respect” for value of accred process (president's response to VTR). VTR notes “candor and clarity” regarding achievements and challenges (IR and visit). IR concluding section identifies WSCUC as inspiring institution to be true to itself. Networked elements: faculty development for learning outcomes assessment (institutional leaders mentor in WSCUC workshops). Institutional response to VTR was appointment of cabinet member to each area of recommendation, with working group as needed, to develop and implement action plan.
Material/information flows	IR identifies lack of knowledge within community about strategic planning and financial priorities processes as area for improvement. Institution needs to develop internal campus communication (IR, VTR, CAL). Information technology has become a strength with respect to collecting, evaluating, and reporting data to inform decision-making.
Concurrent/iterative inquiry processes	Self-study for WSCUC concurrent with Magis Project for on-campus engagement. Inquiry processes are integral to mission; long-term commitment to gathering evidence and using it to inform decisions. Focused on agility in transformation and prioritization activities (IR section 7). President's response to VTR indicates commitment to engagement in iterative inquiry for continuous improvement.

Narrative Analysis	Priv2 + WSCUC
System environment (Banathy 1995)	System (IHE, and IHE+accreditor) in context (changing context of HE). Institution has embraced organizational learning and used the accreditation process (directed self-study, peer review) to improve institutional effectiveness. Campus culture reflects value placed on assessment & improvement (Interim Report) in support of core values.
Functions + structures (Banathy 1995))	Interim report provided clear descriptions of work undertaken since reaffirmation visit. Discussions of the three issues resulted in focused strategic plan components and greater understanding of institutional complexity (Concluding statement).
System through time (Banathy 1995)	The VTR and CAL of the previous reaffirmation visit considered together with the subsequent interim report provide evidence of a long-term discourse between accreditor and institution aimed at institutional effectiveness in support of the mission. VTR cited strong alignment among 3 reports for prior 3-part review process. CAL noted major strides in educational effectiveness. Interim Report demonstrated commitment to multi-year and ongoing processes (developing core curriculum, institutionalizing program review, coordinating diversity efforts). Change in several key leadership positions balanced by continuation in others allowed institution to recognize growth opportunities within mission focus.
System-system relationship including networked elements	Document discourse reveals a strong relationship between accreditor & institution and a campus learning community aware of HE context. For continued improvement, the three issues are incorporated into the new strategic plan. Three institutional commitments (IESI webpage) are aligned with WSCUC core commitments. Focus on continued effort at improving diversity, including student success outcomes for diverse populations, is a shared element between systems, as is commitment to continuous improvement.
Material/information flows	Information flows are mediated through key leadership roles (provost, associate provost, AVP for inclusion and diversity). Institution is process-oriented and uses process flow charts to clarify and examine efficiency and effectiveness. Institution has high tolerance for work groups and task forces to investigate and develop ideas and initiatives, and dissemination of results happens through shared leadership. Institution has at times proliferated efforts, which slows flow of information and process improvement.
Concurrent/iterative inquiry processes	Establishment of Office of institutional Effectiveness and Strategic Initiatives to support 2024 strategic plan. Intentionally integrated development of strategic plan and diversity/inclusion focus. Program review and assessment practices continue to be developed through evaluating prior iterations. Three issues addressed in Interim Report overlap in development processes and in assessment of progress toward institutional goals.