CREATING CAMPUS CULTURES

Fostering Success among Racially Diverse Student Populations

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CREATING A CULTURE OF INQUIRY AROUND EQUITY AND STUDENT SUCCESS

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Public postsecondary institutions increasingly find themselves balancing two major sources of external pressure: severe budget constraints at the state level, and a national political climate fixated on accountability, productivity, and increases in college attainment rates. This means institutions not only have to do more with less, but must also demonstrate success within the framework of accountability systems – such as performance funding formulae and other productivity initiatives – that may or may not acknowledge equity among racial and ethnic groups as a primary indicator of success (Bensimon, Rueda, Dowd, & Harris, 2007; Dowd, 2003; Dowd & Tong, 2007). In responding to these external pressures, institutions' cultures become critically important. Those cultures reveal what is most important to the campus community and they provide direction to the strategies that institutions adopt in response to those external pressures (Bergquist & Pawlak, 2008; Dill, 1982; Sporn, 1996; Tierney, 1988).

In this chapter, we argue that institutions can respond to external pressures for accountability and maintain a commitment to equity in outcomes for students of color by fostering a *culture of inquiry*. We prefer the term *culture of inquiry* to *culture of evidence* because the term *evidence* does not fully convey that it is people – not data by themselves – that engage in the social transformation of data into evidence of a particular situation or condition that signals an organizational failure or success. We think it is important to distinguish between a "culture of inquiry" and a "culture of evidence" because the national campaign for a "culture of evidence" promotes data, metrics, and data systems as if they were self-acting (Alford, 1998). Instead, we believe that evidence is shaped by the questions that are asked by individuals who are themselves embedded in institutional, policy, and state cultures, and those cultures in turn are composed

of particular assumptions, beliefs, interests, and values that can be informed by evidence and inquiry (Dowd, Bishop, Bensimon, & Witham, in press).

A "culture of inquiry," as we define it, (1) reflects the unique culture of academic institutions by involving faculty and campus practitioners in iterative processes of inquiry, (2) uses data as a jumping-off point for intentional and critical analysis of equity in outcomes, (3) fosters reflection on practices and a process of practitioner self-change, and (4) shifts focus to institutional responsibility, rather than student deficits, when devising solutions. Like other authors in this volume, we define culture more broadly as:

> the collective, mutually shaping patterns of institutional history, mission, physical settings, norms, traditions, values, practices, beliefs, and assumptions that guide the behavior of individuals and groups in an institution of higher education which provide a frame of reference for interpreting the meanings of events and actions on and off campus. (Kuh & Hall, 1993, p. 2)

We extend this definition, however, to reflect Neumann's (1995) understanding of culture as having, "a prominent temporal quality, capturing patterns of knowing (i.e., cognition) constructed over time within a social setting" (p. 253). With this emphasis on socially mediated patterns of constructed cognition, a culture of inquiry is thus a way of describing both organizational learning over time and the elements of organizational culture – artifacts, histories, values, and assumptions (Kuh & Hall, 1993; Schein, 1985) – that inform how individuals within institutions learn about, change, and take responsibility for practices and policies impacting student success.

This chapter begins by suggesting that theories of single- and double-loop learning within organizations (Argyris, 1990, 1993; Argyris & Schön, 1996; Bensimon, 2005), cultural-historical activity theory (Bustillos, Rueda, & Bensimon, 2011; Cole & Engeström, 1993; Cole & Griffin, 1983; Engeström, 1987, 2000, 2001), and participatory action research (Kemmis & McTaggart, 2000) help elucidate the process of building and sustaining an effective culture of inquiry within academic institutions, as well as what the key elements of such a culture might be. We then use these theoretical frameworks to draw a connection between individual actions and the type of organizational learning that characterizes the culture of inquiry. We argue that this emphasis on learning and collective inquiry transcends conventional notions of a culture of evidence as a set of functionalist, "data-driven" practices, in favor of culture as a context for critical meaning-making with an eye toward problematizing the role of structures, policies, and practices in the production of racial inequities in educational outcomes. Finally, we use examples from the Center for Urban Education's (CUE) work that is focused on developing equity-directed data practices within institutions and systems to illustrate one approach to building

a culture of inquiry, and we reiterate the key elements of such a culture suggested by the literature and CUE's work with practitioners.

Double-Loop Learning in the Academy

Scenario 1: Confronted with low overall graduation rates, academic leaders in one large state postsecondary system decided to target and address low completion rates in gateway courses for academic majors by changing the processes for imposing prerequisites. Driving this response is the idea that students are failing gateway courses because they lack adequate academic preparation, so additional prerequisite requirements would require students to be more prepared and boost completion rates in these critical early courses and improve graduation rates overall. Without first questioning the institutions' practices for engaging and supporting students in these courses, and without examining differential rates of success in the courses by students of different racial and ethnic groups, however, the new policy risks categorically excluding certain groups of students while doing nothing to address the pedagogic and policy practices that lie at the roots of the low success rates.

Scenario 2: Another large state system acknowledges its low graduation rates and decides to focus on how transfer rates between its 2- and 4-year institutions impact overall system completion rates. The system leadership undertakes a process of system-wide inquiry into its practices and policies, and it examines data on student transfer disaggregated by race and ethnicity. The system's audit reveals that numerous existing practices, such as erroneous course equivalency guidance and admission deadlines that penalize students who do not receive timely advising and guidance, function as significant barriers to transfer. The inquiry also finds that transfer rates differ substantially by race and ethnicity and that, controlling for academic preparation, Latino, African American, and American Indian students who aspire to transfer are significantly less likely to do so than White students. The system leaders respond by convening campus leaders to share in the discussions of the values, histories, and practices informing their respective institutions' approach to transfer admissions. Through this process of inquiry, the system discovers that some 2-year campuses do not have strong transfer support policies in place because of their historical focus on vocational programs. Bringing this history to the surface reveals a contradiction between the values espoused by the system leaders and the policy histories of the campuses. These discussions ultimately result in revisions to practices and policies that improve the ease of transfer between campuses and additional outreach by 4-year institutions to recruit at 2-year campuses with low transfer rates and high concentrations of students of color.

The two narratives above describe real scenarios illustrating some key differences in the way institutional and system leaders diagnose and respond to a

crisis of low graduation rates. In the first scenario, administrators identified a problem and implemented a policy to correct it without trying to understand the underlying reasons for the problem and without questioning the assumptions and values at work in the institution that contribute to the problem. Argyris (1990, 1993) and Argyris and Schön (1996) refer to this type of organizational response as "single-loop learning," which they define as "instrumental learning that changes strategies of action or assumptions underlying strategies in ways that leave the values of a theory of action unchanged" (Argyris & Schön, 1996, p. 20). The term *single loop* refers to the process of acquiring feedback and responding to a problem in order to change outcomes through a functional "fix" that does not question the underlying principles that created the problem in the first place. In other words, the organizational learning that takes place is instrumental in nature; it is learning focused on problem-*solving* rather than problem-*questioning* or interrogation of the value systems in which the process or problem is embedded. In the first scenario above, then, without inquiring into the underlying causes of the low completion rates, the problem-solving policy solution implemented may change outcomes, but may do so with significant negative consequences, including erecting a new set of barriers to access and success for already marginalized students of color, first-generation students, and others who are disproportionately unlikely to meet the new prerequisite standards. Moreover, the response does not alter the institution's underlying values around equity in student outcomes and the ways in which those values are manifested in practices and policies surrounding gateway courses.

In the second scenario, administrators questioned the underlying causes of the observed low completion rates. Though they also targeted a specific intervention point, administrators looked at the institutional processes, policies, and values that supported or inhibited transfer before devising a solution. They also used data to get a more fine-grained understanding of the problem, thus empowering campuses to build more nuanced and sustainable interventions. Argyris (1990, 1993) and Argyris and Schön (1996) suggested that, by fostering cultures that reward this type of deliberate questioning of underlying values and causes, or "double-loop learning," the organization gains "the capacity to learn, especially around problems that are embarrassing and threatening" (Argyris, 1990, p. 95). The "double loop" of learning suggests that, beyond the initial problem-solving response (the single loop), the process of questioning underlying mechanisms and values in order to fundamentally change the structures that produced the initial outcomes provides an additional "loop" of learning. In academic institutions, therefore, a culture that supports "double-loop" learning is one that focuses on institutional values and practices, brings invisible issues (e.g., racial inequities) to the surface, and considers how conventional problem-solving approaches may themselves contribute to the problem (Bensimon, 2005; Bensimon et al., 2007). For example, the hundreds

of compensatory education programs aimed at increasing access and success among underrepresented students are emblematic of the conventional single-loop learning approach. The purpose of compensatory programs is to assist underprepared or "at-risk" students to learn how to adapt and succeed in academic settings when the institutions' own cultural practices may be producing the inequities that they attempt to eliminate. We equate a culture that recognizes the permanence of racism and encourages inquiry into its own practices with a culture that nurtures and normalizes double-loop learning.

That academic institutions are likely to respond to external accountability pressures with instances of single-loop learning and quick fixes is not surprising. Indeed, accountability systems developed in the policymaking arena are typically not designed to elicit or reward deep inquiry or practitioner involvement (Bensimon et al., 2007; Dowd & Tong, 2007). Rather, metrics focused on efficiency and productivity tend to incentivize institutions to rely on "best practice" and compensatory responses – generalized fixes that have been demonstrated in evaluation research to yield positive outcomes in specific contexts that may or may not match the unique circumstances of individual institutions and almost certainly do not encourage inquiry into the deeply embedded practices that perpetuate racial and ethnic inequities (Bensimon et al., 2007; Dowd & Tong, 2007). Such single-loop learning responses may include the amassing of data without a clear audience, purpose, or process for making them actionable, or the type of top-down policy measures described in the first scenario above (Dowd, 2005; Dowd & Tong, 2007). Without involving practitioners and administrators in intentional processes of double-loop learning to address underlying institutional values and assumptions, "best practice" responses fall short of yielding sustainable changes in practice. In fact, large, expensive, and ambitious initiatives to implement "best practices" often find themselves in the embarrassing position of having to admit failure despite the investment of millions of dollars.

Moreover, the unique cultures of academic institutions themselves may serve as barriers to double-loop learning. In the second scenario above, racial inequities had to be made visible in order to create the conditions for effective response to them. Yet many practices in academic institutions, including admissions and the distribution of financial aid, are firmly anchored in "rationalized myths" that dominate the organizational culture and lead to formal structures and procedures that obfuscate such disparities (Birnbaum, 1988; Meyer & Rowan, 1977). The "myth of meritocracy," for example – that historical racism and stratification of opportunity are irrelevant when effort and ability define success – prevents colleges from addressing underlying inequities in race, ethnicity, and class (Alon & Tienda, 2007; Brint & Karabel, 1989). Harper and Hurtado (2007) found that the true racialized experiences of students of color on college campuses are often hidden or ignored by institutions' commitments to "diversity" and "multiculturalism" – concepts that celebrate difference without recognizing underlying inequities. Indeed, addressing

racial inequities as issues of diversity in access or multiculturalism in campus climates preempts a deeper interrogation of underlying values and structures required for double-loop learning.

Moreover, when confronted with external accountability measures, these embedded rationales lead not only to solutions focused on student deficits – such as the prerequisite policy example discussed above – but also to organizational "defensive reasoning." In his work on the tensions of organizational change, Argyris (1990) suggested that individuals within organizations are inclined to react defensively when ingrained assumptions about the validity of processes are contradicted or challenged. In such cases, Argyris argued, individuals have "reach[ed] conclusions that they believe they have tested carefully yet they have not, because the way [the conclusions] have been framed makes them untestable" (Argyris, 1990, p. 10). In other words, practices and decision-making structures are deeply embedded in organizational cultures, making the assumptions and values underlying those structures difficult to question. Similarly, in the first scenario described above, changing the prerequisite policy to address success rates in gateway courses answers the question "what do we do about this bad outcome?" based on the premise that success rates are a function of student deficits to which institutional structures must respond. Framing the question in this way, however, does not allow the question of "what are we doing that might yield this bad outcome?" to emerge or be explored. The defensiveness around status quo patterns of response thus tends to "rationalize" and reify the myths and theories driving those practices, preventing meaningful change (Birnbaum, 1988).

Fostering a culture of inquiry thus requires surfacing rationalized myths by providing intentional processes and norms for inquiry. This process is complicated by the fact that academic institutions are home to a complex web of subcultures into which "evidence," as both new forms of cultural artifacts and new practices and values, must fit (Bensimon, 2005; Bensimon et al., 2007). Sporn (1996) identified several qualities of academic organizations that inform their unique cultures and make the alignment of external accountability measures and internal practices particularly difficult, including (1) the ambiguity of goals and standards for performance, (2) the value placed on autonomy and shared governance by faculty, and (3) the large variety of constituencies to whom universities must be accountable. In addition, because of shared governance and the high value that faculty place on autonomy, academic institutions are driven as much, or more, by the ideological norms of the profession than by bureaucratic rules (Austin, 1990; Birnbaum, 1988; Dill, 1982).

The power of disciplinary and professional values in determining organizational behavior leads Dill (1982) to conclude that, "The celebration of academic values such as honesty, sustained curiosity, the communication of knowledge, and continued intellectual growth should be necessary conditions for any vital academic culture" (p. 315). These values may in themselves be

myths that require interrogation. Nonetheless, if we accept Dill's idealized rendering of the academic culture, academic organizations would thus seem ripe for the development of a culture of inquiry built around such values. Accountability systems that encourage single-loop learning policy measures, as well as responses that emerge from rationalized myths within institutions, like the example in the first scenario above, would logically seem to contradict and undermine academia's cultural strengths. Meaningful attempts to alter institutional practice based on evidence must therefore work to lower organizational defenses around dominant ideologies and rationalized myths in order to facilitate a culture in which double-loop learning responses are the norm.

Culture, History, and Contradictions: Opportunities for Learning

How do we go about creating a culture of inquiry compatible with the unique characteristics and ideals of academic culture? As previously mentioned, our definition of culture emphasizes Neumann's (1995) suggestion that culture represents shared patterns of knowing constructed over time. The reference to shared patterns of learning over time is a strategic emphasis that recognizes the strengths of the academic organization and attempts to leverage those ideals in developing a culture of inquiry around equity in academic outcomes for all students. Part of the strategy is, as Neumann's (1995) definition suggests, to recognize academic settings – in particular those settings in which decisions are made that impact student success and equity in outcomes, such as classrooms, admissions offices, faculty senate meetings, and the policy-setting domains of system academic affairs officers – as *cultural activity settings* (Engeström, 1987), a special term used by sociocultural theorists (Engeström, 1987; Engeström, Miettinen, & Punamäki, 1999; Tharp & Gallimore, 1988) to capture the "who, what, when, where, why, and how" of the routines that constitute everyday life (Bustillos, Rueda, & Bensimon, 2011). The specific components of an activity setting include subjects (participants), objects (the goals participants are trying to achieve), tools (the forms of mediation available in the setting, which can be symbolic, such as language or concepts, or more tangible, such as physical artifacts), community, rules, and division of labor. The community refers to the specific community formed by those participating in the setting, but also the connections to the various extended communities with which they are associated (Bustillos, Rueda, & Bensimon, 2011). Such settings become the site of growth – the petri dish, in a way – for nurturing a culture of inquiry.

Cultural-Historical Activity Theory

Cultural-historical activity theory (CHAT) is an evolution of Vygotsky's (1978) activity theory that takes the cultural activity setting as a unit of analysis

for understanding collective, socially constructed learning, and is thus helpful for conceptualizing how a process of collective learning over time can be transformative (can, in effect, constitute a culture of evidence). Engeström (1987, 2000, 2001) applied CHAT to workplace settings in order to understand how the elements of social-cultural and cultural-historical theories of individual learning might be elevated to understand collective and organizational forms of learning. In addition to the focus on activity settings – organizations as a whole or departments within organizations, for example – as the unit of analysis, Engeström (2001) outlined several principles of CHAT that help shape our vision of a culture of inquiry:

- *Activity settings must be understood as "multi-voiced"*: Activity settings are communities of "multiple points of view, traditions and interests" in which "the division of labor . . . creates different positions for the participants, the participants carry their own diverse histories, and the activity system itself carries multiple layers and strands of history engraved in its artifacts, rules and conventions" (p. 136).
- *History is a critical factor in shaping activity*: "Activity systems take shape and get transformed over lengthy periods of time. Their problems and potentials can only be understood against their own history. History itself needs to be studied as local history of the activity and its objects, and as history of the theoretical ideas and tools that have shaped the activity" (pp. 136–137).
- *Contradictions are sources of learning that promote innovation*: "Contradictions are historically accumulating structural tensions within and between activity systems . . . Such contradictions generate disturbances and conflicts, but also innovative attempts to change the activity" (p. 137).
- *Expansive transformation – learning – can occur in activity settings*: "An expansive transformation is accomplished when the object and motive of the activity are reconceptualized to embrace a radically wider horizon of possibilities than in the previous mode of the activity" (p. 137).

The applicability of Engeström's first two principles to academia is compelling: academic institutions are certainly home to multiple points of view, each situated within their own historical and cultural traditions. In addition to the dominant culture that characterizes the larger institution, numerous individual groups constitute the academic community – faculty, students, and administrators, to name only the most obvious – and each has a corresponding culture in which its roles are rooted and into which its practitioners are socialized (Bensimon, 2005; Bergquist & Pawlak, 2008; Sporn, 1996). Moreover, beneath these multiple individual cultures exist numerous subcultures. Austin (1990), for example, identified the multiplicity of cultures surrounding the role of faculty members, including the culture of the academic profession and the distinct culture of disciplines. A culture of inquiry cannot be divorced from,

or ignorant of, these diverse subcultures and the way they inform individuals' perspectives and behaviors. Rather, Engeström's (2001) principles suggest that this diversity of perspective must be integrated into the process of collective learning.

Our understanding of academic institutions and departments or functions within institutions – such as admissions offices, academic departments, or institutional research departments – as cultural activity settings thus provides a framework for identifying, organizing, and invoking history in efforts to foster transformation of the practices and policies impacting equity, as happened in the second scenario above when the history of 2-year colleges as vocational (non-transfer oriented) institutions was revealed as an underlying cause of the lack of transfer support policies. Historicizing the contexts of inequities in student outcomes can also empower practitioners within the institution; it enables individuals to shift from a role in which they must defend practices or policies (e.g., "state law prohibits us from talking about race") to a role in which they serve as detectives and can begin to understand how the practices that structure their daily work have come about, the cumulative impact of those practices, and the possibilities for changing them (Gutiérrez & Vossoughi, 2010). This historicized view of the policies and practices that have brought about institutional norms thus helps attenuate blame or defensiveness within the activity setting and helps participants understand and reflect upon the historical, cultural, and political origins of the structures that regulate their actions.

Moreover, making the multiplicity of perspectives and viewpoints within the institution visible and central to a process of deliberate inquiry allows contradictions to emerge between the espoused values of the campus or system and the *de facto* practices, as happened in the second scenario above, when the two-year campuses' histories as vocational institutions contradicted the system's value on encouraging transfer and its assumption that institutional policies within the system were aligned around that value. Indeed, Engeström's third principle suggests that such contradictions are a necessary catalyst of organizational learning. Cultural-historical activity theory thus urges that we can open the door for contradictions to become learning opportunities by surfacing and acknowledging the histories of the multiple roles and subcultures within academic organizations.

Within a culture of inquiry, then, contradictions become the catalysts for change when they disrupt the patterns of diagnose-and-react that tend to yield instances of single-loop learning. Indeed, a culture *of inquiry* must be one in which contradictions are valued and interrogated, rather than ignored or avoided. Evidence of racial and ethnic inequities in student outcomes, for example, may contradict the histories and assumptions of "diversity" or the myth of meritocracy in which institutions have rooted their practices and policies (Bensimon, 2005). In this way, the contradictions that are nurtured in a culture of inquiry can help to surface the racial inequities and the experiences

of minority students that otherwise remain unaddressed by initiatives focused on diversity and multiculturalism (Harper & Hurtado, 2007).

Finally, in its vision of collective learning and transformation of organizational practices, CHAT centralizes the role of "mediating artifacts" based upon Vygotsky's (1978) emphasis on the objects, tools, and languages that mediate interactions between human beings and between humans and their environment and that embody significant cultural meaning (Engeström, 1987, 2001). From a sociocultural perspective (Cole & Griffin, 1983; Engeström, 1987, 2001; Gutiérrez & Vossoughi, 2010), individuals within an activity setting rely on artifacts, including language, to get things done and to create meaning. Situations that reveal a contradiction between what is espoused or expected call for the interrogation and re-mediation of practices. Racial inequity is an outcome that underscores the contradiction between the espoused values of equal opportunity and the reality of a truncated structure of opportunity. In this vein, organizational learning can be understood not as a linear path leading from data accumulation to action, but rather as the capacity of participants within an activity setting to recognize the emergence of a situation that contradicts espoused values or expected results. In the case of racial inequity, organizational learning can be said to happen when participants are able to recognize it as a contradiction (not as the natural occurrence of underpreparation) that calls for deliberate interrogation and re-mediation – a term that captures the intent to change the very cultural elements that mediate individual and institutional practices and behaviors.

Similarly, in our vision of a culture of inquiry, the concept of *re-mediation* aligns with double-loop learning to suggest a transformation of the mediating means – those tools, language, data, and other "artifacts" (e.g., racially disaggregated data; protocols to assess policy from a critical and equity perspective; the concept of equity-mindedness; for additional examples see Bensimon & Malcolm, forthcoming) – that directly mediate practitioners' engagement with their work. Cultural-historical activity theory helps focus inquiry on the tools used in carrying out activities within organizations, and implicates those tools in the processes of inquiry in order to fundamentally alter an institution's approach to constructing policies and practices to promote equity.

Participatory Action Research: Technical, Practical, and Critical Reasoning

Thus far, we have argued that a culture of inquiry provides the context for deliberate and institutionally sanctioned interrogation of underlying values and assumptions about student outcomes and the policies and practices that impact them. We also argued, drawing from CHAT, that activity settings across campuses and systems must serve as sites of cultural meaning-making by practitioners, and that the individual and collective interpretations and perceptions

of those individuals must be re-mediated with new artifacts and languages to facilitate critical inquiry. These points lead us to an important final distinction: the differentiation between a functionalist understanding of culture of evidence, in which institutional researchers or others are called upon to perform the "function" of providing and analyzing evidence about student outcomes and promoting "data-driven" policy and practice, and the critical, process-oriented, and social-constructivist vision of a culture of inquiry for which we argue.

To better clarify the difference between these views of a culture of evidence, we adopt participatory action research theory's concept of a "science of practice" (Kemmis & McTaggart, 2000) – that is, a form of research into one's own (or one's own institution's) practices. In constructing a theoretical framework for participatory action research, Kemmis and McTaggart (2000) argued for education researchers to engage in a "science of practice," which, they claimed, "will be constructed in social relations and will involve elements of technical, practical, and critical reasoning about practice" (pp. 582–583). Moreover, the goal of the research being conducted and the role of the researcher dictate the type of reasoning employed (Kemmis & McTaggart, 2000). Thus, functionalist understandings of a culture of evidence are constrained by limiting the type of "science of practice" they construct to those employing only technical forms of reasoning, while ignoring other forms of reasoning necessary to yield double-loop learning around student success and equity.

Technical reasoning, in particular, aims to solve a predefined problem or improve the efficiency of predetermined means. Technical reason is thus like single-loop learning (Argyris & Schön, 1996); the underlying assumptions and values informing practices are not brought into the scope of interrogation, and only the means by which those outcomes are pursued get considered. For example, in arguing for more extensive use of research in community colleges, Bailey and Alfonso (2005) focus on the role of technical reasoning, suggesting that (1) institutional research would "play a more prominent role" on campus, (2) faculty and administrators would consistently use data on student outcomes to make decisions, and (3) colleges would increase data reporting (pp. 3–4). The emphasis on the functions of data collection, use, and reporting is aimed at the effectiveness and efficiency of community colleges' practices. These functions address the technical reasoning around practices but do not question the underlying outcomes being pursued or assumptions on which they are based.

By contrast, the culture of inquiry for which we argue here maintains an ideological goal – equity – and places the practitioner in the role of researcher, thus necessarily invoking other forms of questioning than those that occur within the problem-solving scope of technical reasoning. This iterative and critical form of inquiry also requires "practical reason," which questions both the ends being sought and the means by which those ends have traditionally been pursued, and "critical reason," which questions how the consequences

of existing processes or policies adversely affect those involved (Kemmis & McTaggart, 2000). Practical and critical reason shape practitioners' involvement with evidence; they are the modes of cognitive engagement with data, for example, that allow individuals within institutions to shift the framing of inquiry from questions such as "why are students not able to transfer?" to "how are transfer opportunities structured in a way that disadvantages or neglects certain students?"

Practical reasoning guides practitioners' approach to questioning and decision-making in the context of complex or contradictory value systems and structures, such as those operating within academic culture. Thus, an approach to inquiry employing practical reason is more concerned with helping practitioners be aware of the histories and consequences of existing practices, rather than pointing to an immediate solution or a prescribed set of actions (Kemmis & McTaggart, 2000). As a culture of evidence involves practitioners in the interrogation of the histories and values of their work with an underlying commitment to equity, practical reasoning is the vital metacognitive process in which they engage and which calls into question both the outcomes about which institutions collect data and the uses they make of that evidence. Moreover, without critical reasoning, the amelioration of adverse impacts gets lost, and the functionalist priority on the production and dissemination of evidence – and the technical reasoning that appropriates it – comes to stand in for and preempt deeper, critical inquiry about the equity of the ends we pursue in our institutions.

Defining a Culture of Inquiry

Based on lessons from the theory of double-loop organizational learning, cultural-historical theoretical perspectives of organizational transformation, and the forms of reasoning that support participatory action research, we thus far suggest the following to help define what a culture of inquiry is and how it might work within academic institutions to promote racial equity:

A culture of inquiry must both overcome the challenges and exploit the ideals of the distinct larger culture of academic organizations. To foster sustained and meaningful attention to equity, a culture of inquiry is one in which evidence is used to contradict the myths and assumptions that are firmly entrenched in academic culture. However, a strong culture of inquiry also leverages the ideals of academic culture, including the value academia ascribes to continuous learning, honesty, and intellectual growth (Dill, 1982).

A culture of inquiry makes double-loop learning the norm. A culture of inquiry must facilitate and normalize organizational learning responses that questions institutional values, assumptions, and theories of action rather than encouraging quick-fix practices and policies that seek to change outcomes without fundamentally addressing underlying causes.

A culture of inquiry supports an ideological objective of equity, and uses practical and critical reasoning to transform practices and change outcomes. Functionalist notions of a culture of evidence focus on the collection of data by institutional researchers and the systematic analysis and dissemination of "evidence" about outcomes without calling into question the assumptions underlying those outcomes – in other words, the means (data collection) become the ends. Our vision of a culture of inquiry is one in which practitioners take responsibility for critically examining both the way outcomes have been defined *and* the policies and practices that impact them. Both means and ends are called into question, with a constant eye toward equity.

A culture of inquiry re-mediates the practices of organizations by changing the tools, symbols, and languages that guide individual actions and perceptions. The potential to create new mediating artifacts is a critical component of building a culture of inquiry. As in the example of evidence that reveals inequities in student outcomes and thus contradicts entrenched histories and assumptions about diversity and merit, data and the tools and processes that provide access to them are invaluable for *re-mediating* institutional practices and theories of action.

Mediating artifacts are the most tangible and modifiable elements of a culture of inquiry. Those artifacts help link processes of collective learning to the day-to-day actions of individual practitioners in communities across the institution. In the next section, we elaborate on the link between individuals and the institution within a culture of inquiry, and describe how data and language as mediating artifacts can impact the way individual practitioners both independently carry out their work and collectively transform institutional practices to improve equity.

From Individual Practice to Collective Learning about Equity

As we work through the concept of a culture of inquiry, how it might serve to alter practices and policies impacting racial and ethnic equity in academic institutions, and how we might go about intentionally developing such a culture, we must keep in mind the reciprocal mechanisms of culture generally. Kuh and Hall's (1993) definition of culture emphasized the inherited norms and values that determine behaviors of individuals within groups and groups within the larger society. Neumann (1995) emphasized the temporal quality of culture and the accumulation and construction of shared knowledge over time, and Birnbaum (1988) suggested that, for organizations, culture "establishes an 'envelope' or range of possible behaviors within which the organization usually functions" (p. 73). Each of these understandings of culture implies a degree of reciprocal construction and reinforcement between cultural norms and those who uphold them in their daily practices, wherein the norms are being inherited and reified simultaneously. While individual behaviors are

being structured and guided by the norms and values of the culture(s) in which they live and work, they also reproduce and reinforce those norms and values by operationalizing them in their daily actions.

The impact of a culture within an institution thus has largely to do with the way it shapes the perceptions and practices of those individuals working within the institution, but the actions of individuals also sustain – or potentially change – the cultures within institutions. Building on the theoretical foundations of CHAT and the interest in constructing a culture of inquiry in which double-loop learning becomes a default response to contradictions, Figure 3.1 illustrates how individuals, within specific activity settings across the institution (e.g., admissions and financial aid, administration, institutional research) are linked to other key aspects of a culture of inquiry within the larger cultural activity setting of the university. The diagram in Figure 3.1 is adapted from Engeström's (1987, 2001) and Cole and Engeström's (1993) structure of human activity settings and it illustrates various aspects of a culture of inquiry promoting equity in student outcomes.

The process of building a culture of inquiry must therefore acknowledge the role of *individuals* – and the assumptions, perceptions, languages, and tools that determine how they go about their daily actions, how they structure their work, and how they interact with the other elements of the academic institution as a cultural sphere. As Figure 3.1 suggests, the efficacy of a culture of inquiry depends as much on the learning of individuals as those individuals' learning depends on the cultural conditions that encourage it. In their work on action research, Bensimon, Polkinghorne, Bauman, and Vallejo (2004) suggested that "The opportunity for institutional change lies in the possibility that individual participants will transfer their learning to other contexts within the institution, and in doing so, enable others to learn and change" (p. 113). Thus, the processes through which individuals engage in the practices that
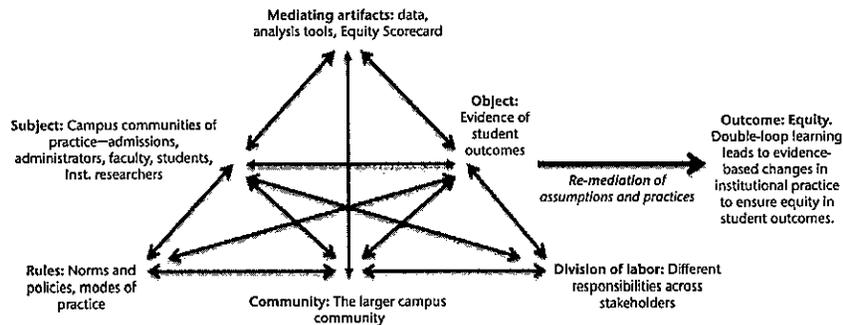

FIGURE 3.1 Aspects of the Culture of Inquiry to Promote Equity in Student Outcomes.

characterize a culture of inquiry are critical, as are the tools that serve to re-mediate existing practices.

Re-mediating Practices with Data

The University of Southern California's Center for Urban Education (CUE) works with campuses and systems to involve practitioners from across departments, divisions, and areas of responsibility in processes of deliberate, iterative inquiry regarding racial and ethnic equity in student outcomes. Experience working with these campuses and systems has shown that public institutions typically produce large quantities of data for a variety of audiences and purposes: institutional researchers submit annual enrollment, graduation, and an abundance of other student and organizational data into the federal Department of Education's Integrated Postsecondary Data Systems (IPEDS); institutions often produce voluminous "accountability reports" that may or may not get posted deep within campus or system websites, and so on (Harris & Bensimon, 2007). However, faculty and other practitioners rarely have access to, or the opportunity to engage with, data on their students' success, and the learning potential of data depends on the determination and willingness of the community to interrogate – not just produce – those data. Because data are only as valuable as the questions asked of them, they are thus a critical but incomplete aspect of a culture of inquiry.

Using data as an entry point to inquiry is a strategy for capitalizing on the value that academic institutions place on learning and inquiry, while also presenting evidence to contradict embedded assumptions and patterns of practice. In this way, the use of data within a culture of inquiry serves as a new form of mediating artifact; disaggregated data on students' success throughout the college pathway must be intentionally presented using tools and processes of inquiry that encourage and reward practitioner engagement. As Harris and Bensimon (2007) argued, allowing practitioners to "take the role of researchers rather than relying on the knowledge produced by outsiders such as consultants or university researchers" (p. 82) allows them to act as detectives, building their own lines of questioning and developing their own hunches about the underlying causes for the patterns they observe in the data.

Involving faculty and other practitioners also achieves broad buy-in to the problem-defining and solution-setting decisions and the ultimate policies or practices that are designed to address those problems and agendas, thus lowering the defensive barriers likely to arise when problems are defined and solutions imposed from outside (Dowd & Tong, 2007; Harris & Bensimon, 2007). Admissions officers, counselors, faculty, and other practitioners are those individuals whose daily work has the most direct impact on student success. Involving those practitioners in the interrogation of their own practices is a way of uncovering their values and assumptions, allowing them to

develop and collaboratively test their hunches about causes, and ultimately encouraging them to take ownership over solutions rather than defaulting to "best practices," defensive strategies, or patterns of behavior and action that perpetuate inaction toward inequity (Bensimon, 2005; Harris & Bensimon, 2007). When the day-to-day tasks of campus practitioners can be re-mediated through this form of detective work using deliberate data analysis tools and processes, single-loop learning responses are bypassed in favor of double-loop learning that enables institutions to address the true roots of inequities.

Examples of Data as Mediating Artifact: Vital Signs, Equity Scorecard, and Benchmarking

When the Center for Urban Education (CUE) begins working with campus practitioner teams to inquire into and address racial and ethnic inequities in student outcomes, institutional researchers are asked to populate a data template called the "vital signs," which presents a range of data on student retention and graduation rates disaggregated by race/ethnicity. The vital signs provide key data on equity in student outcomes in a way that is accessible to practitioners whose roles do not typically involve analyzing complex data (Harris & Bensimon, 2007). The vital signs provide a point of entry for practitioners to begin to assess racial/ethnic inequities and gaps in student outcomes and to develop questions about what they observe. As opposed to having problems defined by technical policy measures (e.g., prerequisites limiting access to classes) or by administrative priorities (e.g., being told to improve course completion rates to meet performance funding benchmarks), the vital signs are anchored in evidence and generative – they iteratively nurture curiosity rather than defensiveness and single-loop learning.

As practitioner teams begin defining specific areas for inquiry, such as transfer, developmental education, or student progress in certain majors such as STEM or nursing, CUE uses the Benchmarking Equity and Student Success Tool (BESST) as another form of mediating artifact. The BESST is an interactive data presentation platform that organizes racially disaggregated data on student progress and success into intuitive, institution-defined visual models. Engaging with their own institutional data organized into familiar student experiences (e.g., developmental education course-taking and success, credit accumulation), participants are able to both confront the facts the data present about differences in student outcomes and begin a discussion about the possible causes of racial disparities. The tool thus provides an anchor and context for a shift in the language used to inquire about and address inequities in student outcomes, thereby mediating the relationship between these participants and their institutional histories and structures in new and more productive ways.

Ultimately, practitioners working with CUE use the various data tools and the observations and inquiries they have made to construct an Equity

Scorecard – a collection of indicators, populated with institutional data – that the practitioner team believes reflects critical information about student equity and success on the campus. The specific indicators used in the Scorecard are determined by the participants and may include, for example, retention and persistence, transfer readiness, or intensity of credit accumulation. Importantly, the Equity Scorecard becomes the vehicle through which the team shares its learning with the larger campus; it becomes a tool for re-mediation not only of the individual practitioners' daily practice but also of the ways in which the larger campus approaches and understands student success. The team has thus created a new artifact to mediate the use of evidence within the campus – a tool that facilitates double-loop learning based on intentional and iterative questioning of underlying assumptions about student success and about gaps in success by race and ethnicity.

Re-mediating Practices through New Language

Even when presented with evidence about inequities in student outcomes or gaps in student success, CUE has found that campuses and individual practitioners working in them may not be equipped with the language necessary to address race as a factor in student success. Discussion of race has become taboo on many college campuses, either as the result of superficial initiatives to ensure "diversity" and "multiculturalism" that stifle meaningful discussions about race (Harper & Hurtado, 2007), or as a result of legal action making administrators and practitioners cautious about discussing race, such as affirmative action rulings or Proposition 209 in California (which prohibits state institutions from giving "preferential treatment" to any individual or group based on race, sex, color, ethnicity, or national origin). Harper and Patton (2007) also suggest that college educators and administrators resist talking about race because of the implications it has for their own positions of privilege and the perception of racism as an intractable societal issue on which persistent dialog is tiring and frustrating.

A culture of inquiry must then also provide a new language to re-mediate practitioners' and administrators' engagement with evidence about racial inequity. Although data as a re-mediating tool can provide a foundation for identifying and questioning patterns of inequity in student outcomes, using that evidence constructively requires a new vocabulary through which to engage in dialog and with which to design effective solutions.

Examples of New Language as Mediating Artifact: Equity-Mindedness vs. Deficit-Mindedness

In working with campuses on using data to address inequities in student success, CUE also works to engender a shift in the discourse in which

practitioners engage around race. In particular, this shift requires a change in the language and "cognitive frames" through which relationships between academic outcomes and student characteristics are perceived (Bensimon, 2005). Just as Harper and Hurtado (2007) found that the façade of commitment to diversity on campuses tends to obfuscate racial experiences, CUE has found that most campus practitioners tend to think about the relationship between race and academic outcomes in one or both of two ways. The first of these is in terms of *diversity*, in which the focus is on representation of differences and the discourse is structured around terms such as *multiculturalism* and *colorblindness*. The second common approach to addressing racial disparities focuses on student *deficits*, particularly vis-à-vis academic outcomes, in which the focus is on stereotypes associated with economic disadvantage, lack of academic preparation, and other background characteristics attributed to students based on their race or ethnicity.

As practitioners' perceptions of student outcomes are re-mediated by engaging with data and processes of inquiry, CUE also helps to shift the language that practitioners use away from discourses of diversity and deficit-mindedness to focus instead on *equity-mindedness* – an alternative cognitive frame and language that focuses on institutional responsibility for student outcomes and the institutional practices that support or hinder student success (Bensimon, 2005). Practitioners, who are invested in the process of inquiry and their role as detectives, thus begin to shift discourse away from statements such as: "African American students are often unprepared for college-level math because they come from underserved schools" or "Latino students don't want to transfer because they prefer to stay close to home." They instead ask: "What systems do we have in place for our students who need additional academic support?" or "How are we reaching out to our Latino students to support their transfer aspirations?"

Just as data as a mediating artifact help lower defensiveness around observed outcomes, this new language also helps – slowly, but surely – to lower the resistance that individuals feel toward talking about race and ethnicity in relationship to student outcomes. It both provides an entry point for taking responsibility for student success, and moves the dialog away from talking about "preferential treatment" for specific groups based on their perceived deficits. Campus practitioners do not have to feel the same anxiety about discussing race in relation to academic outcomes when they are given a mediating language that places responsibility on, and empowers, the institution to change its own practices.

Conclusion: Practitioners within a Culture of Inquiry

We have argued that a culture of inquiry within academic institutions must overcome the unique challenges, as well as leverage the strengths, of the

distinct larger culture of academia. We have also suggested that our notion of a culture of inquiry re-mediates the practices of individuals within organizations by changing the tools and languages that guide individual actions and perceptions, and empowers campus practitioners to make evidence-based decisions that improve equity in student outcomes. Finally, we suggested that a critical, transformative culture of inquiry makes "double-loop learning" the norm as a way of responding to both internal crises (such as inequities in student outcomes) and external accountability pressures, and that such a culture favors critical reasoning and inquiry aimed at the ideological objectives of equity and student success. In conclusion, we turn briefly to implications for practitioners and suggest ways in which practitioners can use evidence to promote meaningful improvements in outcomes for all students as well as equity in outcomes for students from all racial and ethnic groups.

Whereas institutions produce massive quantities of data in response to state and national policy initiatives, or under the guise of a functionalist notion of a culture of evidence, our work has shown that the relationship between the theories driving the collection of data and on-the-ground solutions is often absent. Without building capacity around the use of data, as we have suggested must occur within a culture of inquiry, campuses are limited to using technical reasoning (Kemmis & McTaggart, 2000) and single-loop learning responses that change outcomes without creating sustained changes in institutional values – often with unintended negative consequences. Campuses and systems that have used CUE's tools and processes to build a culture of inquiry around equity have done so, in part, as a way of building this capacity and empowering the practitioners with the most direct influence on student outcomes to alter their underlying beliefs, values, and perceptions – and, therefore, practices. We thus argue that creating a culture of inquiry, as we have described it here, must begin with practitioners using inquiry to change their day-to-day assumptions, decisions, and behaviors.

In particular, the theoretical approaches we have used to understand a culture of inquiry point our attention to the history, language, tools, and data that form the context of our daily work in colleges and universities. As professionals, we can conduct our own inquiry into the processes of our daily work and begin to question the impacts of these taken-for-granted elements on student success and equity in student outcomes. As these inquiries begin to cross departments and accumulate evidence from across communities of practice to more broadly interrogate the institution's values and policies, individual actions are then linked in a culture of inquiry. For practitioners, a culture of inquiry thus begins with questions into our daily routines:

- What evidence do we use to make decisions in our daily activities, where does that evidence come from, and how is it structured? Who provides it, when, and why? Who uses it?

- Are data disaggregated by race/ethnicity and other subgroups and are we asking questions of the data that allow us to determine if there are inequities in student achievement?
- What assumptions and values come into play when we look at data on student outcomes? For example, when we look at data on student outcomes, do we default to assumptions about student deficits or do we question institutional policies and structures?
- What do we know about the histories of the way things are done in our departments or on our campuses? Have policies and processes been reevaluated using evidence to consider outcomes and equity, or are they taken for granted?
- What language is commonly used to talk about accountability and student outcomes? Do we tend to talk about diversity more than equity? "Best practices" more than inquiry into causes? Data reporting more than data inquiry?

A culture of inquiry is more than a buzzword used to suggest "data-driven decision-making" or the production of data in reports that never get read. A culture of inquiry as we have described it here is, in fact, a *culture* – it represents patterns of behaviors motivated by shared norms and values around inquiry and equity, and it is developed over time and across different roles or departments. Within a culture of inquiry in academic institutions, the patterns of perception and practice are mediated by new tools for accessing data, new processes for inquiring about inequities in student outcomes, and new languages for creating generative dialog about racial experiences and inequities in outcomes. Within this re-mediated cultural setting, then, evidence is used to create double-loop learning for individuals and the institution as a whole. A culture of inquiry, finally, is one in which an institution's commitment to equity and success for all students is authentically reflected in transformed practice and policy.

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