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Doing Research that Makes a Difference

Over the past several years, the chasms between research and practice as well as research and policy have been the topic of commentaries (Keller, 1985; Layzell, 1990) of several addresses given by presidents of the Association for the Study of Higher Education (e.g., Terenzini, 1996; Conrad, 1989; Nettles, 1995), and books (Kezar & Eckel, 2000). A prevalent theme in these publications is the disconnect between higher education research and policymakers and practitioners. The solutions that have been offered to close these gaps include writing in a more user-friendly style, publishing research results in outlets that are practitioner-oriented, presenting research results at practitioner-oriented meetings, and studying problems that are high on policymakers' and practitioners' lists of priorities. Essentially, solutions for closing the gap between research and practice involve two issues. These are the need to study problems that are of greater relevance to policymakers and practitioners (whoever they are) and the need to broaden the ways in which research findings are disseminated.

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We do not believe that the gap between research and practice will be closed by researchers choosing more relevant and/or bigger problems to study nor by their developing more user-friendly forms of dissemination. Instead, we believe that the problem lies in the traditional methodology of knowledge production. As members of the educational research community we have been socialized to believe that the purpose of research is to produce scientific-like knowledge that practitioners can apply at the local level to improve educational outcomes, student success, leadership, and so on.

In this article we describe an alternative methodology for conducting research that is intended to bring about institutional change. This process involves developing deeper awareness among faculty members, administrators, or counselors, of a problem that exists in their local context. In some instances these individuals may be unaware that the problem exists; in others, they may be aware of the problem but not of its magnitude; or they may perceive its broad outline but not the details.

To differentiate between this alternative methodology and the traditional way of conducting research, we call the former the “practitioner-as-researcher” model. The principal distinction between the two models is in their approach to knowledge production. In the traditional model the individual identified as the researcher controls the production of knowledge; in the practitioner-as-researcher model, stakeholders produce knowledge within a local context in order to identify local problems and take action to solve them.

This article contains four parts that serve to delineate the distinctiveness and utility of the practitioner-as-researcher model. In the first section we contrast the traditional model of research with the practitioner-as-researcher model. Second, we provide details about a project in which we have utilized the practitioner-as-researcher approach, the Diversity Scorecard project. Next, we discuss the outcomes that the practitioners who engaged in research experienced. Finally, we provide our concluding thoughts and reflections on the process.

Part I: The Methodologies of the Traditional and the Practitioner-as-Researcher Model

The Traditional Model

The traditional model of research production calls for a division of labor between the manufacturers of research findings (researcher) and the consumers of those findings (practitioner). In the traditional research model, the researcher defines the problem to be studied, selects the appropriate methods, collects the data, interprets them, and reports the

findings. The role of the research subject is to provide the information the researcher is seeking. The researcher is the expert on the problem to be studied, which gives him or her the authority to provide solutions. The results of the research are reported in journal articles that are generally read by other researchers. Most of these articles have no influence whatsoever on the actions of higher education practitioners. Consequently, the knowledge obtained through research tends to remain unnoticed and unused by those for whom it is intended. If research is to have a real impact on higher education, it will take more than making the research producers' reports more user-friendly for practitioners. What is needed is another model for research production in higher education—a model that will at least supplement the traditional model if not replace it.

The norms that characterize the traditional model of conducting educational research place a premium on the production of representational knowledge. Representational knowledge is acquired by converting the characteristics of individuals, organizations, or phenomena into variables that are connected to one another in a functional manner (Park, 1999). An example of this is the analysis of student success in college as a function of the number of mathematics courses completed in high school. Park writes, "The instrumental power of representational knowledge in this functional form lies in its capacity to make predictions by showing antecedent events leading to probable consequences, which makes it possible, in theory, to produce desired events or to prevent undesirable ones" (p. 82). In the scholarship of higher education, much of the published research on student retention, institutional change, and leadership effectiveness is characteristic of representational knowledge.

Proponents of "decolonizing" or "emancipatory" methodologies describe traditional research as looking at indigenous people through "imperial eyes" (Smith, 1999, p. 42). In higher education, one might say that traditional research is looking at students, faculty, or institutions through "researcher eyes." Drawing on the work of Stuart Hall (1992), Smith describes traditional research as the "West," a model of research that has the following characteristics:

It (1) allows 'us' to characterize and *classify* societies into categories, (2) condense complex images of other societies through a *system of representation*, (3) provide a standard *model of comparison*, and (4) provide *criteria of evaluation* against which other societies can be ranked. (pp. 42–43; emphasis in the original).

We see the traditional model of knowledge production as being far more to blame for the gap between research and practice than the irrelevance of the problems studied, the colorless writing of researchers, or

their over-reliance on specialized journals as the accepted vehicle for the dissemination. The traditional model's methods, such as classification, measurement, and the creation of ideal models, even though they are remarkably effective in reducing complexity and chaos into manageable concepts, rarely provide a picture that reflects the reality of a particular place and particular people.

In the traditional model, research production is held to be a highly sophisticated and skilled enterprise. In addition to requiring years of graduate training to understand its intricacies, it demands extensive knowledge of procedures for eliminating biases and proficiency in ever more complex statistical techniques. Because of the difficulties involved, an individual's research production serves not only to create new knowledge but also to demonstrate his or her skill and worthiness for academic promotions. The focal audience for research reports consists of journal reviewers and editors. Thus, the reports display the care with which the study adheres to the requirements of an accepted methodology.

Traditional research methodology has a stronger association with quantitative studies that mimic the scientific approach. However, even though the methods of data gathering are different, qualitative studies constitute traditional research in that the roles assumed by the researcher and researched are based on the traditional model of knowledge production.

The kind of knowledge valued in the quantitative-based traditional model is independent of context. It states what, in general, is so. It is not focused on the individual differences at local institutions (Huberman, 1999). In its applied form, it asserts that certain programmatic interventions bring about better results than others. When the consumers of higher education research are confronted with a problem, they consult the journals to find out which programs the researchers have determined will provide effective solutions. Then they can implement such programs with confidence that they will solve the local problem. In traditional qualitative studies, even though knowledge is treated as context dependent and emphasis is placed on individual differences, the researcher does not involve the subjects in decisions about research approaches and research design (Heron, 1996). Research, whether in the tradition of positivism or interpretivism is still conducted at a distance and "largely fails to penetrate the experienced reality" (Stringer, 1996, p. 6) of the everyday life of the researched.

Practitioner-as-Researcher

Our motivation to create a practitioner-as-researcher model stems from our affiliation with the Center for Urban Education (CUE), the mission of which is to conduct research that will result in the creation of

enabling institutional environments for children, youth, and adults from socially and economically disenfranchised groups residing in urban settings. Realizing that the data collection practices used in the past would not enable us to attain our goal, we decided to adopt a practitioner-as-researcher model that was more closely aligned with the Center's mission. Our opportunity to develop this approach came two years ago, when CUE received a grant from The James Irvine Foundation to work with 14 urban colleges in Southern California on improving educational outcomes for African American and Latino students. The model for conducting research introduced in this article evolved from our work with these institutions over a two-year period on the Diversity Scorecard project. We call this model "practitioner-as-researcher" to emphasize that in it the roles of the researched and researcher are reversed to some extent. That is, practitioners take the role of researchers, and researchers assume the roles of facilitators and consultants.

The practitioner-as-researcher model has elements of community (Smith, 1999), collaborative, and participatory action research (Bray et al., 2000; Stringer, 1996) in that the *purpose* of inquiry is to bring about *change* at individual, organizational, and societal levels. The *methodology* consists of outsider researchers working as facilitators engaged with insider teams of practitioners in a process of collecting data and *creating knowledge* about local problems as seen from a local perspective.

Reason and Bradbury (2001) write that action research "is a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes" and that its primary purpose "is to produce practical knowledge that is useful to people in the everyday function of their lives" (pp. 1–2). In the practitioner-as-researcher model, individuals conduct research about their own institutions, and by doing so they acquire knowledge that they can use to bring about change in these institutions.

Because institutional insiders conduct the actual research, the role of the professional researcher shifts from research producer to consultant and facilitator for the practitioner researchers. The practitioner-as-researcher model requires that the professional researcher be skilled in building and maintaining personal relationships as well as in research design. Above all, it is important for the insiders to assume ownership of their findings. The outcome is knowledge that heightens the members' awareness of what is occurring within their institutions and increases their motivation to effect change. Thus, the knowledge produced in this model is practical and effective in directing changes.

To more clearly define what we mean by the practitioner-as-researcher model, we will distinguish it from other forms of action-ori-

ented research which prioritize participation as a key feature. Reason (1994) describes three approaches to participative inquiry: cooperative inquiry, participatory action research, and action science or action inquiry. In the first phase of cooperative inquiry, the coresearchers agree upon the proposed area for research and methods for carrying out the research. In utilizing the practitioner-as-researcher model, we did not collaborate with the practitioners on the identification of the problem. We, the outsiders, identified a suspected problem area—inequities in educational outcomes for African American and Latino students in postsecondary education—and in that sense set the agenda for the research. We also chose the method for conducting this research—examining institutional data disaggregated by race and ethnicity. So while we feel that the practitioners' involvement in the research is, in fact, the key feature that produced the outcomes we sought, the practitioners were not involved in the development of the research question or method. In this sense, the practitioner-as-researcher process is not a faithful application of action-oriented research.

Participatory action research operates in the political realm and is concerned with producing knowledge and empowering people and communities through genuine collaboration. This model may have been more applicable to our project had we worked directly with students of color on participating campuses who were experiencing inequities in educational outcomes. Instead we worked with faculty, administrators, and staff to conduct research on this problem. When comparing the political power of these two groups, the students appear to be those in need of empowerment in terms of making institutional change. We chose to work with faculty, administrators, and staff because we felt they were closer to and could have more direct effects on the decision-making systems of the institutions.

Our model belongs to that category of research known generally as action science or action inquiry, which is a “form of inquiry into practice” (Reason, 1994, p. 330). There are differences among researchers who operate within these categories. Research conducted in these areas is concerned with transforming organizations and communities to act self-reflectively and collaboratively within everyday practice. However, this reflection among community members often operates at a more theoretical and abstract level, focusing on “the collective dream and mission” (p. 331). Reflections such as these are secondary to those engaged in by the practitioners-as-researchers in our current project. The target for our collaborative inquiry was more concrete and specific—to raise awareness of the existence of inequities in educational outcomes by involving members of 14 campuses in a data-driven project. Hence, our

model fills a distinct space in the realm of action research because of the questions and methods it employs, as well as the focused nature of the study.

Part II: The Diversity Scorecard: A Practitioner-as-Researcher Project

The purpose of this section is to illustrate the practitioner-as-researcher model by discussing a particular case of the use of the model as well as the choice to use this model by describing the Diversity Scorecard project in depth. The Diversity Scorecard project is concerned with equity in educational outcomes for African American and Latino students. The stated goal was to work in partnership with 14 urban two- and four-year colleges, public as well as independent, to improve educational outcomes for undergraduate students who are African American, Latino, or members of other groups with a history of underrepresentation in and underpreparation for higher education. We proposed to accomplish this by involving participants from the 14 institutions in the identification of indicators that would enable them to assess and improve institutional effectiveness in terms of equity in access, retention, institutional receptivity, and excellence for students of color. The focus was specifically on African-Americans and Latinos because they typically experience the greatest inequities in educational outcomes. Equity is defined as the point at which a particular ethnic group's representation across all majors, programs, honors, and so on at the institution is equal to the group's representation in the student body. Therefore, if Latino students make up 25% of the student body, they should also make up 25% of the Dean's List. To achieve this, the activities of the project were aimed at developing leadership for change among the research team members in the 14 participating institutions.

Why use the Practitioner-as-Researcher Model to Explore Equity?

Our interest in conducting research that will make a difference arose from the predicted consequences of the demographic and educational changes in California, the state in which we live and work. California is known for its ethnic diversity and growing minority population. Steady influxes of immigrants continue to intensify this trend. Not only is California the most ethnically diverse state with an expediently growing immigrant population, it is often seen as a prime example of an economy experiencing the polarizing effects of globalization (Sassen, 1994). Increasingly, the scenario being written for California is one of economic polarization because a growing sector of the population, primarily

Latino, is not reaching the educational level that will be a prerequisite for the jobs in the future. Demographers have painted a bleak future showing that the gap between the haves and have-nots is widening, with an increasing likelihood of social breakdown as low-skilled immigrant and ethnic minorities proliferate at the bottom of the labor market and highly skilled workers are imported from other states or countries (Myers, Park, & Hacegaba 2000).

The primary approach used to address these concerns has been the development of a system for enhancing diversity in higher education. Termed the “pipeline” model, this system focuses on providing minority students with greater access to higher education. It is based on the view that the normal channels are blocked for minorities and barriers must be removed and new pipelines of access laid. Ibarra (2001) described the four-fold mission of the pipeline model: (1) to increase the number of minority students enrolled in higher education; (2) to offer remedial courses and tutorial support for underprepared minority students; (3) to assist in meeting the financial, academic, and sociocultural needs of minority students, and (4) to offer academic advice and counseling on issues related to culture (pp. 236–237). The pipeline model has been extended into the primary and secondary schools with programs designed to help minority students in preparation for college and eventually for graduate school admission and academic positions.

In spite of long involvement with diversity initiatives, institutions of higher education do not appear to have made much headway in reversing these troubling trends (The California Citizens Commission on Higher Education, 1998). Presently, only 4% of California’s Latino and 3% of African American high-school graduates have the grades and test scores to qualify for admission to the University of California. This compares most unfavorably with the 13% of white and 30% of Asian American high-school graduates who qualify for the University of California. Furthermore, in *Shape of the River*, a study intended to show how ethnic minorities benefit from the pipeline model, Bowen and Bok (1998) found a performance gap or academic differential between the GPA ranking of graduating minority and majority students.

This being the case, the project described in this article was motivated by a concern that in spite of increased access to higher education for students of color, there continue to be major inequities in educational outcomes, particularly among African American and Latino students. Had we chosen to use the traditional model of research, our team of outsiders would have collected data from the 14 institutions, taken it back to our offices at the University of Southern California for analysis, and written a report emphasizing the technical sophistication of our work. The re-

port would then have been submitted for publication and a copy forwarded to the presidents of the participating institutions. These presidents might or might not have read it and might or might not have shared it with the faculty who might or might not have found it useful.

However, rather than conducting research that would culminate with papers and articles in which we would reveal patterns of inequity in educational outcomes and make general recommendations about how they might be reduced, we wanted our work to make differences at the very sites where inequities in educational outcomes exist. That is, rather than trying to reach an unspecified audience in the hope that our findings would influence their practices, we wanted to find a way of conducting research that would be situated in and shaped by local conditions and local individuals. We wanted the participating institutions to learn whether the pipeline approach was working in terms of achieving equity in educational outcomes for African American and Latino students. We wanted the institutions to incorporate the knowledge they had acquired into the local systems of decision making. To put it simply, we wanted to be able to facilitate research by local participants that would improve their understanding of diversity on their respective campuses and influence their actions to achieve equity in educational outcomes among their students. The vehicle for accomplishing this was the Diversity Scorecard project, which is described in greater detail in the following section.

The Diversity Scorecard Project

As mentioned above, most efforts related to diversity and achievement in higher education have focused on access to postsecondary institutions and on the dynamics of interracial and intercultural human relations, most often on predominantly white campuses. Our interest was quite different. We wanted to focus attention on the accountability side of diversity—the missing link between access to institutions and evidence of results in educational outcomes in the diversity agenda in general. We sought to do this among those institutions that have successfully achieved diversity in their student body but who have a long way to go in duplicating the same degree of diversity in those educational outcomes that indicate students of color have an opportunity to gain access to opportunity and power.

The scorecard tool. The strategy used in the Diversity Scorecard project was the examination of institutional data disaggregated by race/ethnicity that reflected educational outcomes by teams of institutional actors in the local context. The Diversity Scorecard was derived from Kaplan and Norton's (1992) balanced scorecard for business and the academic scorecard (O'Neil et al., 1999). The Diversity Scorecard pro-

vides four concurrent perspectives on institutional performance in terms of equity in educational outcomes: access, retention, institutional receptivity, and excellence. It is basically an accountability framework that is appealing to institutional leaders who have to respond to external calls for creating “cultures of evidence.” It has been observed that administrators act when things go wrong and that one of the ways that administrators sense that things are going wrong is through data analysis (Birnbau, 1988). It is also true that what gets measured is what gets attended to by campus leaders. A serious shortcoming of the diversity agenda thus far has been the absence of baseline data and benchmarks that would make it possible for institutions to engage in a systematic and continuous self-appraisal and improvement of their “diversity” efforts.

The scorecard process. The Diversity Scorecard provided the means to involve campus members in the production of knowledge about student outcomes disaggregated by race and ethnicity. The involvement of campus teams in gathering and analyzing data in order to create the measures and benchmarks for their institution’s Diversity Scorecard was the strategy that we used to develop or intensify their awareness and consciousness about the fact that inequity in educational outcomes is widespread on their campuses.

The evidence teams’ first order of business was to identify inequities in educational outcomes; this is a cognitive process.¹ Recognition requires learning, something that was not known before or that was suspected but never confirmed with evidence. As learning is more likely to happen through conversation, proponents of communities of practice recommend that professionals who have something in common learn by participating in activities in which they interact with one another (Wenger, 1998). However, participation in a community of practice is not simply a matter of attending meetings or events. According to Wenger, it is a “more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities” (p. 4). Thus, a community of practice provides the situation and establishes the conditions associated with effective learning, which can bring about important changes in an individual’s beliefs, values, and actions of individuals. The opportunity for institutional change lies in the possibility that individual participants will transfer their learning to other contexts within the institution, and by doing so, enable others to learn and to change.

Although we “outsiders” identified the problem and the framework to be used for research, each evidence team selected the educational outcomes to focus on. Their choices reflected the unique concerns of each type of institution. The ability of each team to concentrate on institu-

tional priorities indicates a major advantage of the practitioner-as-researcher model. Institutions of higher education are very different from one another, but their differences are not clearly revealed in much of the research, particularly when viewed through the interpretive lens of the “research university.” The fact that the evidence teams of 14 institutions developed 58 fine-grained measures² of educational outcomes indicates why it is so difficult to translate generalized research findings into practice. According to one participant,

The DS could be the antidote to anti-affirmative action. When you make the institutions choose the indicators and show whether they are succeeding or failing on them... It’s more meaningful than if others [external agents] construct measures.

Our expectation was that through the process of developing the Diversity Scorecard and writing up a report on their findings, the members of the campus teams would become experts on the state of equity on their respective campuses. By involving team members in the actual gathering of information on student outcomes and disaggregating it by race and ethnicity, some of the participants might feel more empowered to assume the role of change agents. That is, “The knowledge production itself may become a form of mobilization” that induces individuals to take action (Gaventa & Cornwall, 2001, p. 76).

Part III: Outcomes for Practitioners-as-Researchers

Action research is a valuable strategy because the production of knowledge by members of an inquiry group has the potential to be transformational. Participating in an inquiry group can increase members’ awareness of a problem, make them more conscious of their capacities for action, and empower them to use their newly acquired expertise to influence others (Gaventa & Cornwall, 2001; Park, 1999; Smith, 1999). According to Stringer (1996), “If an action research project does not *make a difference*, in a very specific way, for practitioners and/or their clients, then it has failed to achieve its objectives” (p. 11; emphasis in the original). The effectiveness of the Diversity Scorecard project depends on two kinds of changes. The first kind has to do with the teams and their individual members. At the team level, one might ask these questions: “Is there evidence that mutual involvement in the production of knowledge has made a difference for the group as a whole? Has the team acquired new awareness about inequities, and if so, has this awareness led to collective action?” At the individual level, one might ask: “Is there evidence that individuals have developed new awareness, that they feel empowered, that they have

initiated changes in their own practices as faculty members, academic administrators, institutional researchers, or counselors?"

The second kind of change is the ultimate indication of the effectiveness of this project. At some point, one must ask, "Is there evidence that educational outcomes for African American and Latino students reflect progress toward equity?" When this question can be answered affirmatively, then change is occurring. In our view, change of this nature requires that the individuals who are responsible for decisions affecting the education of African American and Latino students must, themselves, go through a process of change. At this stage of the project it is too soon to evaluate changes in student outcomes. Moreover, it would not be possible to do so without initiating longitudinal cohort studies.³

In order to determine the effects of the inquiry process on members of the evidence teams, we maintained field notes and also conducted interviews with a subset of the participants. This aspect of the project is in progress, and the quotations provided are only for the purposes of illustration. A more rigorous analysis of the kinds of changes experienced by individuals is currently underway. In the following sections we provide examples of individual changes as well as examples of individuals for whom the project made no difference.

New Awareness about Inequities in Educational Outcomes

Considering the limited awareness of inequities in educational outcomes for African Americans and Latinos, the inquiry process proved to be a revelation for the evidence teams. To realize the seriousness and enormity of the problem, they had to find the evidence and draw their own conclusions. While some had initially been dubious, data disaggregated by race and ethnicity convinced them that inequities did indeed exist on their own campuses. Team members usually reacted with surprise when they saw what the data revealed. For example, in one institution, it was generally known that about 41% of the first-time students needed remediation in mathematics. Compared to other institutions, this was a low percentage. However, when the data on remediation were disaggregated by race and ethnicity, they indicated that within the first-time student population, 78% of the African Americans and 52% of the Latinos experienced this need. The following comment from a team member reflects the group's overall response.

This is the first time that I'm aware of that anyone is looking at this problem by ethnicity and to this level of detail. [Now that the data have been disaggregated] we can look more deeply and systematically at remediation rather than just the 59/41 split (between math and English). This is central on everyone's mind. We can really raise conversation around this.

On another campus, as the evidence team was reviewing data tables that had been prepared for them by the institutional research office, a dean was particularly struck by what they disclosed about student's performance in several mathematics courses:

It was presented in such a way that it was very overwhelming. I think everybody who saw the data said, "Wow, we have a real serious problem." All of a sudden, seeing the data provided in that way, everybody stepped back and gasped and said, "Boy, there's something going on." We shared it with the Provost. He was in awe of it. We talked about it in several committee meetings and people were in awe of it . . . and the President was made aware of this information and he was in awe of it.

One of the reasons why these data inspired such "awe" was that they were displayed on a table with five columns, each of which represented an ethnic group. The rows listed about 27 "gateway" courses—e.g., Introduction to Economics, various mathematics courses. The last column showed what percentage of all the students who had taken a particular course completed it with a grade of C or higher. The other columns showed the pass rates for students from each ethnic group. For example, in Introduction to Economics 70% of the students may have completed it with a grade of C or higher. The other columns showed the pass rates for each ethnic group. If the percentage of, say, Latinos who earned a "C" or higher grade was equal to (70%) or higher than the pass rate for the total, the percentage was shown in the color blue, but if the percentage was below the total (<70%), it would be shown in red. This color coding made inequities in educational outcomes of minority students startlingly obvious.⁴

The columns for Latinos, African Americans, and Native Americans were almost virtually all in red . . . they were below the average in all the remedial courses. They were below the average in all of the college-level math courses. They were below the average in the business quantitative courses. And when you look at this, you're thinking "These students aren't going to be around."

According to Huberman (1999), "Mindshifts are invariably self-initiated" (p. 311). This may account for the limited impact of traditional research on everyday practice, because research knowledge alone is not sufficient to bring about conceptual shifts among practitioners. On the other hand, when practitioners are the researchers, the knowledge they generate is more likely to produce a conceptual shift. The following excerpt from one of our interviews describes such an occurrence:

We've known for some time that the highest graduation rates are among the Latinos, and we've always been very proud of that. Then somebody said,

“Do they graduate with GPA’s as high as everybody else? Do they graduate in majors across the campus or are they congregated in a few places? Are those places preparing them for careers?” And I’m going “I don’t know. I never thought about that.” But then not only do we need to think about those questions but to realize that the numbers can start toward giving you answers to them. And in some cases watching the numbers gets you closer and closer to the causes . . . When somebody went, “Oh God, the culture of assessment again!” I’d say “But look at what I learned.” And you know, you figure if it changed my attitude I might be able to change somebody else’s attitude.

Another individual experienced a conceptual shift and discussed how working on the Diversity Scorecard affected how she and other team members developed a different way of thinking about data.

[The Diversity Scorecard] really changed our way of thinking, and it changed the way in which we talked with others on campus about data and information . . . it has been frustrating because we’re clearly thinking in a different way than a lot of our peers or colleagues . . . They haven’t had the opportunity to really think in the same way or to question or probe.

Evidence Supersedes Anecdotes

Participation is a learning process as well as a research process (Green & Levin, 1998). In addition to raised awareness about inequities in educational outcomes, another outcome of the use of the practitioner-as-researcher model in the Diversity Scorecard project was that participants developed a commitment to data-informed knowledge that extended beyond the immediate project and into other aspects of their professional work. Through their work as researchers, they came to recognize the superiority of knowledge derived from data over that which is based on anecdotal evidence. One team member expressed that the data confirmed what he knew and validated his work as a dean. He reported that the Diversity Scorecard:

has provided the opportunity for me, as the dean of undergraduate Studies, not just as a concerned individual, to focus on something. And what it did is, it validated I think what I was feeling intuitively, and I had heard it anecdotally for a number of years . . . it presented data in a way that was just overwhelming.

Another team member from a private institution told us that we had taken away his innocence, because he now sees everything in terms of outcomes and benchmarks. He said,

You have tainted my vision . . . I now think differently.

Two other members of the same team had similar responses. One commented,

On this campus when we talk about issues and problems we often talk about mythologies. Evidence-based practices provide [information] about where we are and where we need to improve. This project is training me to think critically. I now look at some of the mythologies and ask about supportive data.

The second member said,

There are a lot of mythologies. Doing this project I've found many ways of thinking about data. I've even learned new techniques as an Institutional Research person.

A member of another team admitted having changed from being skeptical about the project to becoming an advocate for it.

I want it understood that at first I was very skeptical about this project. However I have found the approaches to data very useful. This makes it easy when tying it into other things I'm doing or committees I'm on. The evidence-based practices have allowed for a lot of spillover. This pushing to look at data is spilling over to other areas such as when we ask, "Is the curriculum working?"

Participants indicated that the project provided an important learning experience. Comments such as these were typical: "We can make arguments supported with numbers"; "something we've learned from this project is to ask questions about how we can do things better"; "I had never thought about gateway courses—ever"; "I'm learning lots about how I can look at data"; "I have learned different ways of perceiving"; "I'm trying out ways I can apply the knowledge more this semester."

Self-Change and Empowerment

It is too early in the project to determine whether new awareness has led to self-change and empowerment among the participants. However, at this point we can provide brief examples from Diversity Scorecard team reports and from a few individuals who have been interviewed. One Diversity Scorecard team from a public institution wrote a report to their president noting that in learning more about their students, they attained a new perspective by looking at the data. They then reported:

With the information gained from this exercise and a sustained effort, we believe that [our institution] can make an even greater difference in the level of success that our students achieve while at [our institution] and beyond.

Another report written by a team from a small, private institution to the president of the college stated they had

. . . found the Scorecard approach and process—of evidentiary inquiry into the state of equity in student outcomes and potentially enabling or inhibiting

practices that contribute to these outcomes—a “high” learning experience, transformational, and likely to bring about or has already resulted in changes in practices.

These excerpts exemplify empowerment as a result of participating in the Diversity Scorecard process at the team level. The teams highlighted felt compelled to improve the conditions at their institutions to ensure the academic success of Latino and African American students.

Empowerment also occurred at the individual level. One individual spoke expansively about the project having intensified his commitment to issues of equity.

It reinforces your feelings about wanting to continue to try to bring about change, it helps me kind of get a little fired up . . .it is like when you go to a concert, a good concert and you come back and you’re fired up because you’re ready to go again.

This individual made other comments about the project that were very consistent with our view of ways in which the practitioner-as-researcher model might make a difference.

As a result of this project, you kind of become a bit more interested in wanting to become change agents. Not just merely people who facilitate the flow of work and the implementation of procedures and policies, but that we kind of take a conscious interest in trying to bring about change. I always try to be a change agent, but I also remind myself that given where I am, I know that I become complacent, and I know that there are certain things that I start taking for granted.

In another example of feeling empowered, a woman at a private college spoke about feeling more appreciated by the president and being seen as someone who has valuable information.

I think the project has transformed my role. The president will often call upon me or my colleagues on the team to brief her prior to meeting with an outside agency or about certain diversity issues and that has been an interesting learning experience for me.

This woman also discussed how the Scorecard inspired her and her team to actively make changes on campus to address students’ needs. In her interview, she said,

I mean [the Diversity Scorecard project] even caused us at that point to do something we never had really sat down and done. And that was to create what for us became the Intercultural Vision Statement. You know, a kind of mission statement for the intercultural initiative... It was almost going back to ground zero and starting over, and it was, I think, an altogether positive thing that happened, and it wouldn’t have happened without the Scorecard.

A woman from another team spoke of the Scorecard affecting her professional career in that it has provided her with resources that have motivated her.

Personally, it [the Diversity Scorecard Project] has opened my eyes . . . This process has really given me new energy, a new life for my professional work. It has opened up resources and access to information and to knowledge that I didn't have and its really... it's made me excited again about my work and motivated me to pursue further studies for myself.

Individuals Who Did Not Experience Change

There were a few individuals who reported that the project had no effect on them. We feel it is important to be frank that not all members of the Diversity Scorecard project experienced a deepening of awareness of inequities, nor experienced motivation to address inequities. For example, a woman faculty member told us,

It [the project] felt like an exercise. We did come up with a few things, but it wasn't as much as we would've liked. And one of the reasons . . . well, our team kept changing. I'm not sure it was worth all the time that was put into it on our part. We never did our homework as much as we should've because we had so much else going on, and I think had people gotten stipends⁵ from the beginning it might have been taken a little more seriously. It might have been more useful. I really do. I think that would've made the difference. It didn't even have to be a lot but a kind of acknowledgment that we were adding to USC's project.

Another individual who was an institutional researcher, reported that the project had no effect on him and that he had learned nothing new. Toward the end of the interview, the USC interviewer summarized what he was hearing from this individual as follows,

I've gotten from you . . . that your eyes were open to start with in terms of these issues and they remained open. The program didn't close them and it didn't open them any wider basically.

To which the participant responded,

I think that's fair to say.

This individual had been resistant to the project from the outset, and in his interview he expressed considerable frustration with the design of the project as well as with the USC project staff members who were working with his team. He said,

I've been doing this kind of work for eighteen years, and when individuals come in and begin to dictate the scope, course, and direction of your work it

was very difficult for me personally to indicate that your approach is simply not mine. There was no sense that we were partnering in this kind of investigation. It was “We have work to do. Let’s get busy.”

He also resented the time he and his colleagues had to spend in preparing the research report for the president,

We’re making this an elaborate twenty-page document, and there is no pay-off for us in the sense of all the effort we’ve put in.

This individual had come into the project late, having inherited it from his predecessor. Soon after his appointment to the team, two other individuals joined the team, both of them senior faculty members who also had administrative responsibilities. The two of them were enthusiastic about the project and found it very useful. One, in particular, played a major role in the writing of the research report.

Not long after the institutional researcher had responded so negatively in his interview, the team met to “rehearse” the presentation of the report to the president. Much to our surprise this session turned out to be a moment of revelation. As the group was about to start going through their PowerPoint presentation of the data on student outcomes, the institutional researcher indicated that he was uncomfortable with the format being used to present the data as it was not the way that it is normally done. When he reiterated that there was nothing new in either the data or the report, one of the faculty members mentioned above interrupted and said,

You may not have learned anything, but the rest of the team did. You get to see the data all the time because it’s your job, but this was pretty much all new to me.

In the field notes the USC researcher wrote,

It was like a light bulb had gone off over [the institutional researcher’s] head. He reflected for a few moments and then said that the Diversity Scorecard could be used to ‘raise consciousness’ about these issues around campus. He said, “I don’t know how else to phrase it,” he admitted, adding a little hesitantly, “In fact that’s what my office should be doing and we’re not doing a very good job of it right now.” To make sure that this point would not be lost in the meeting with the president, he added a bullet to the PowerPoint presentation, stating that the Diversity Scorecard can be used to ‘raise consciousness among campus community members.

Since the institutional researcher came to this realization, his attitude toward the project and his involvement has changed dramatically, and he is now an advocate of the scorecard approach.

Part IV: Reflections on the Practitioner-as-Researcher Model

This article provides an account of the first two years of a four-year project. The manner in which it is presented may create the impression that the process was smooth and uneventful. Traditional research generally tends to follow a detailed plan with regard to what kind of instruments will be used to gather data, how the data will be analyzed, and how and where the findings will be reported. The practitioner-as-researcher model is quite different in many respects, one of which has to do with control over the implementation of the project.

Different Teams, Different Experiences

In this study we had to depend on the teams to meet and engage in the research process, and there were major differences in the number of times teams met and the number of team members who participated consistently. For example, a three-person team at a small private institution that stayed intact throughout the project had 29 two-hour on-campus meetings in a 24-month period. In contrast, a team whose report was found not to be of value by the president of the institution met only nine times during the same period. In retrospect, frequent meetings were crucial for building trusting and respectful relationships within teams. The relationship that developed between the USC staff and members of the teams that met regularly is more collegial and partner-like; there is a sense that we are all in this together. On the other hand, our relationship with the teams that met less frequently is more formal and distant. In another article we have distinguished teams that demonstrated high levels of learning from those that did not on the basis of the former groups' new recognitions of inequity in educational outcomes (Bauman & Bensimon, 2002; Bauman 2002). To some extent those who demonstrated high levels of learning possessed some of the characteristics associated with "real teams" (Bensimon & Neumann, 1993)—e.g., there was a strong sense of connectedness among the members, they viewed data from different perspectives, asked questions, and engaged in extended conversations, and they accomplished the task. In contrast, the teams we perceived as not achieving a high level of learning exhibited some of the characteristics of "illusory teams,"—e.g., they approached the project as a chore to get out of the way rather than as something they were constructing. The members of these teams lacked connectedness, they met less often, and they did not engage in extended conversations about the data.

Rethinking Our Approaches with Team Members

Perhaps the greatest and most unsettling difference between this project and traditional research is that it has required us to rethink ap-

proaches constantly. Time and again we have changed our course in order to respond to emerging situations or incorporate our new learning. In the first 18 months, our work was as much about gaining the teams' trust and making them comfortable with us as it was about doing what we said we would do in our proposal. Never having worked with this kind of research model, we had to learn how to do it by trial and error, and at times this was frustrating. In particular, we had to adjust to the reality that working with people rather than working with "subjects" and "data" demanded that we be willing to be flexible and be more open to the teams' preferences and needs. Needless to say, it is very difficult to convey effectively the emotional energy that nurturing these teams required of us. Obviously, we are not consultants who come to the campuses a couple of times a year, advise faculty and staff on a particular topic or problem, and then go away. Having a much greater stake in the relationship, we worked to create a level of trust that would prevent the institutional teams from feeling constrained. While our efforts succeeded on most of the campuses, they achieved limited results or failed completely at three institutions.

Admittedly, the USC staff had to work through differences with certain members of the evidence teams. In some instances points of contention were not resolved but swept under the carpet in order to proceed with the task at hand. Another mistake we made was that we did not give sufficient consideration to how institutional researchers might react to this project—specifically that they might regard us as intruders in their domain. Fortunately, most of the resistance was eventually overcome. When institutional researchers began to see that others on the campus were interested in examining data and working cooperatively, they too usually became more enthusiastic. Some have commented that because the evidence teams' reports are simple and display data visually, they have received much more attention than is given to the institutional research reports they normally prepare.

Our decision to focus the project primarily on the educational outcomes for African Americans and Latinos caused some initial discomfort among some of the teams. In one institution, the president informed us that this was not acceptable to her and let it be known that she was apprehensive about the appearance that black students were being flagged as underperforming.

Learning from the Practioner-as-Researcher Process

Robert Moses and Charles E. Cobb capture the difference we perceived between this project and the way we had conducted research previously in their description of research as community organizing.

The organizer does not have the complete answer in advance—the researcher’s detailed comprehensive plans for remedying a perceived problem. The organizer wants to construct a solution with the community . . . This is a long journey and not a linear progression. It is a journey with zigs and zags, a process of push and pulls (Moses & Cobb, 2001, pp. 111–112).

The project did not evolve in a straight line. As we learned by doing and gained a better understanding of what the project was about, we reinvented it continuously. Our teamwork made it possible to do this without destabilizing the project. Throughout the duration of the project the Center for Urban Education research team came together once a week to strategize, plan, brainstorm, and think out loud. To a great extent the success of the project has depended on our capacity and willingness to dedicate time and effort to the process of working as a team ourselves.

Perhaps the most important advantage of the practitioner-as-researcher model is the knowledge it yields about local conditions. Colleges and universities cannot be treated as if they are all identical. They differ in mission, structures, student bodies, funding sources, resources, etc. They also change over time so that what was true of an institution in the past may not necessarily be so in the present. Neither are generalizations about institutions or interventions always applicable. The knowledge about a particular institution developed by its own members is usually more relevant than knowledge about higher education in general developed by experts.

To obtain findings through the practitioner-as-researcher model requires more time and involvement than traditional research. Transferring the role of researcher from the expert outsider to a team of institutional insiders can be a very complex undertaking. Furthermore traditional researchers involved in the project must adjust to the unfamiliar roles of facilitators and consultants. In spite of challenges the implementation of this approach may present, the CUE staff and the majority of the evidence team members agree that the practitioner-as-researcher model is uniquely effective. Its foremost advantage is that it yields findings that can actually make a difference in the understandings and actions of faculty and staff members within a particular institution of higher education.

Notes

¹Susan Talburt (personal communication) has pointed out that if addressing inequity was only a matter of cognition it would be easier to deal with. We agree that inequities are the product of institutionalized and societal forms of racism and power asymmetries that affect the quality of education for students of color from kindergarten through higher education. However, we felt it would be more productive in the long run to use the strategy of knowledge production as the starting place for the recognition of inequities.

²The measures are available at

<http://www.usc.edu/dept/education/CUE/projects/ds/diversityscorecard.html>

³Phase II of the project which started on January 1, 2003, will involve cohort studies and ethnographic interviews with students.

⁴If this table had been presented in black and white, as is the customary way of presenting institutional data, it would not have had much of an impact.

⁵The project does not provide stipends for the campus participants; however, there have been very few complaints about the lack of remuneration.

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