ABSTRACT
        This research report argues for viewing the complex, often
messy process of school reform implementation as a "conditional matrix"
coupled with qualitative research. As illustration, two studies (of six
reform efforts in one county and of implementation of an untracking program
in Kentucky) are reported. Preliminary analysis reveals that the reform
implementation process is marked by several important considerations: (1)
reform efforts in schools do not succeed on simple technical considerations
alone, nor in a linear fashion; (2) consequences of actions taken in one
context become the conditions for actions taken in other contexts, as part of
a complex dynamic shaped by the structural and cultural features of school
and society; (3) the implementation process is viewed differently from
different perspectives; (4) school culture mediates educators' actions and
structural constraints; and (5) school site educators do not respond to
design team or government actions passively and automatically. The actions of
educators in Kentucky and Florida in the face of state mandates suggest that
the way in which power is interpreted must be examined as well as the way in
which it is imposed. Contains 39 references. (MSE)

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EDUCATIONAL REFORM

IMPLEMENTATION:

A CO-CONSTRUCTED

PROCESS

AMANDA DATNOW

LEA HUBBARD

HUGH MEHAN

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CREDE

Center for Research on Education, Diversity & Excellence

EDUCATIONAL REFORM
IMPLEMENTATION:
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AMANDA DATNOW
JOHNS HOPKINS UNIVERSITY

LEA HUBBARD
UNIVERSITY OF CALIFORNIA, SAN DIEGO

HUGH MEHAN
UNIVERSITY OF CALIFORNIA, SAN DIEGO

Collaborating Institutions

ARC Associates
Brown University
California State University, Long Beach
California State University, San Jose
Center for Applied Linguistics (CAL)
Center for Research on Evaluation, Standards, and Student Testing (CRESST)
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Center for Research on Education, Diversity & Excellence

All inquiries should be addressed to Dissemination Coordinator, CREDE/CAL, 4646 40th Street NW,
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Abstract

We propose that formulating the reform implementation process as a "conditional matrix" coupled with qualitative research is more helpful in making sense of the complex, and often messy, process of school reform than either technical-rational or organizational development models. To illustrate our formulation, we report on two CREDE projects, the study of the implementation of six reform efforts in "Sunland County," and the study of the implementation of the AVID untracking program in Kentucky. Our admittedly preliminary analysis reveals that the reform implementation process is marked by several important considerations: (1) Reform efforts in schools do not succeed on simple technical considerations alone, nor do they proceed in a linear fashion, fixed in time and space. (2) The consequences of actions taken in one context become the conditions for actions taken in other contexts. Some educators may initiate reform efforts, others may push or sustain them, still others may resist or actively subvert reform efforts. This range of actions shows that the agency of educators is part of a complex dynamic, shaping and shaped by the structural and cultural features of school and society. (3) The implementation process is viewed differently from different perspectives. (4) The culture of the school mediates educators' actions and structural constraints. (5) School-site educators do not respond to design team or government actions passively and automatically, as though they were irresistable pressures bearing down on them. The actions of educators in Kentucky and Florida in the face of state mandates suggest that we must examine the way in which power is interpreted as well as the way in which it is imposed.

Introduction

We seek to understand the process by which a school incorporates or enacts an externally developed reform design. An externally developed school reform design is a model for school improvement that is developed by an outside design team. This team generally conceives the reform design; develops the principles, implementation strategy, and materials that accompany the reform; and sometimes provides training and supports that enable local schools to prepare educators to implement the reform. When implementation of a tested prototype program or design expands to many schools, the process is known as replication or, in the current educational reform literature, scaling up (Elmore, 1996; Stringfield & Datnow, 1998). Scaling up has proven to be a vexing and seldom successful endeavor (Elmore, 1996). We argue that this is due to a lack of understanding of the co-constructed nature of the implementation process.

Studies that treat the implementation process as uni-directional, technical, mechanical, and rational (Carlson, 1965; Havelock, 1969) do not fully capture how educational innovations play out as social, negotiated features of school life. Organizational models of school improvement that developed in reaction to these technical-rational models also do not suffice for understanding school reform implementation (see, e.g., Fullan, 1991; Louis, 1994). Because their focus is on school-level strategies for self-renewal and improvement, organizational models downplay the actions that initiated the reform and the governmental, community, and district actions that occurred away from the school before it attempted rejuvenation and renewal. Neither technical-rational nor organizational development models help us fully understand educational implementation, which we believe involves a dynamic relationship among structural constraints, the culture of the school, and people's actions in many interlocking sites or settings.

Our research builds upon work in the sociocultural tradition that has helped shape the Center for Research on Education, Diversity & Excellence (CREDE), especially Rogoff (1995) and Tharp (1997, p. 12), who identify personal, interpersonal, and community "levels" or "planes" of interaction; and McLaughlin and Talbert (1993), who depict organizations as successively contextualized layers. We extend this work by explicitly calling attention to the political and economic conditions that enable possibilities and impose constraints on education in general and on school reform in particular. We also try to avoid privileging any one context in our discussion of educational implementation by showing the reciprocal relations among the social contexts in the policy chain.

We believe that formulating the reform implementation process as a "conditional matrix" coupled with qualitative research is helpful in making sense of the complex and often messy process of school reform. To illustrate our formulation, we report on two CREDE projects: a study of the implementation of six reform efforts in one Sunbelt school district[1] and a study of the implementation of the Advancement Via Individual Determination (AVID) untracking program nationwide.[2] We hope that our formulation will be helpful to others studying the school reform process.

Before we trace the implementation of reform efforts in the schools involved in our two studies, we present the assumptions and premises that guide our research.

Educational Implementation as a Conditional Matrix

Neither human social life in general nor school reform in particular takes place automatically, in isolation, or in discrete, autonomous situations. At the same time, social actions are not generated entirely and spontaneously in locally organized contexts. To capture the interrelations among social contexts, we treat the reform process as a conditional matrix.

Hall & McGinty (1997) express this concept well: "The policy process can be analyzed as a conditional matrix, as a web of interrelated conditions and consequences, where the consequences of actions in one context may become the conditions for the next" (p. 461). Hall & McGinty suggest that interactions in one context generate "outcomes," such as policy statements and new rules or procedures, which in turn potentially condition the interactions of other actors in other contexts along the policy chain. Formulating the replication process as a conditional matrix is heuristic, because it shows us that educational implementation is generated in face-to-face interactions among real people confronting real problems in concrete social contexts, such as classrooms, school board meetings, courts of law, and state legislatures.

Often, implementation is portrayed as a linear sequence or mechanical process of program testing, adoption, and institutionalization; or educators in schools are depicted as passively responding to directives mandated by higher bureaucratic levels (Carlson, 1965; Havelock, 1969). These educational implementation models mistakenly assume that social life proceeds in one direction—that is, that forces emanating from higher levels of context cause or determine action at lower levels. Educational implementation expressed as a conditional matrix avoids the definition of social life as uni-directional. Educational reform is not merely a "top-down" process. Certainly, actions initiated at some distance from local contexts may constrain local actions, but they do not totally determine them. Indeed, actions initiated by local events generate or construct conditions or structures that have consequences in settings far removed from local events. Educators at school sites do not simply respond to mandates; they are active agents, both responding to and enacting policy. In the real world, educators may act in a variety of ways in response to reforms. Some may initiate reform efforts. Some may push or sustain reform efforts. Others may resist or actively subvert these efforts. Regardless of the course of action taken, the agency of educators is part of a complex dynamic, shaping and shaped by the structural and cultural features of school and society.

The conditional matrix does not automatically assign an *a priori* status to any single context. For practical reasons associated with conducting research, the interaction among social actors in one context is foregrounded at a given point in time, and of necessity, the other contexts are backgrounded. Events do occur in the chronological past, present, and future, just as they occur near to or far away from us; therefore, we can use these divisions to clarify our statements about events. However, we must always recognize the influence of one context upon the other when describing the implementation of educational reforms (see Cole, 1996; Engestrom, 1993; Hall & McGinty, 1997; McLaughlin & Talbert, 1993; Rogoff, in press; Tharp, 1997).

Perspective and Power

The meaning that people derive from the social world varies according to their perspectives (Austin, 1961; Garfinkel, 1967; Thomas & Thomas, 1928; Wittgenstein, 1954). A person's location in social institutions and cultural arrangements can influence that individual's interpretation of events (Bakhtin, 1981). Gender, ethnicity, and social class are particularly powerful realities that shape differences in meaning. Gender, for

instance, operates as a system of socially constructed meanings in which men and women have unequal power. In most societies and within American institutions, men have more public power, controlling governmental, legal, and public discourse (Crawford, 1995). These power relations are a feature of the terrain of everyday discourse in societal institutions, including schools, and influence the perceptions that men and women have of social events and objects, such as educational reform efforts (Datnow, 1998).

All perspectives are not equal, however. Thomas and Thomas (1928, p. 572) were certainly correct when they noted that people define situations as real, and these definitions are real in their consequences. Because of institutional arrangements, however, some positions accrue material and symbolic resources that enable incumbents in those positions to impose meanings upon others. Psychiatrists, for example, have the power to confine patients in hospitals against their will, even if the patients believe themselves to be healthy; judges can confine people in prisons, even if the prisoners consider themselves innocent; and educators have the power to change the course of students' educational careers, even if their decisions go against the students' preferences (Erickson & Shultz, 1982; Mehan, Hertweck, & Meihls, 1986; Sjöström, 1997).

Because of the distribution and application of power within an institution, the meaning of a particular reform implementation system or its aspects may not necessarily be shared; there can be disagreement or conflict over the meaning of actions, events, and even the system itself. If there is consensus, it is achieved, not given. It does not flow naturally from a shared culture. Consensus is achieved through negotiation and often strife, which means it is fragile and subject to revision and change. With these ideas about power and perspective in mind, we will attempt to display as many perspectives on the implementation process as possible within the constraints of the present work.

Structure, Culture, and Agency

From the ethnomethodologists (Cicourel, 1973; Garfinkel, 1967; Mehan & Wood, 1975; Wieder, 1973) and from Giddens (1979, 1984, 1993), we borrow a "co-constructed" perspective on what have been called "macro phenomena" (social structures) and "micro phenomena" (social actions). These researchers say that social actions constitute social structures and are simultaneously constrained or enabled by them.

The idea of co-construction is particularly helpful for the study of educational reform, because it helps us look at the relationship between social interactions in schools and the impact of the major structural forces that characterize, indeed contribute to, the reproduction of society. To be more than heuristic for our understanding of the policy implementation process, however, structural forces must be located in the social actions that take place in encounters situated in classrooms, schools, districts, communities, design team meetings, courts of law, and governmental offices.

Culture is an often neglected dimension of school reform (Sarason, 1982; Waller, 1932). Inasmuch as culture involves power and is the site of social differences and struggles, we believe that culture is as important as other dimensions and profoundly impacts the actions of educators and the constraints they face (Datnow, 1998; Oakes, Wells, Datnow, & Jones, 1997). In order to depict the equal, albeit reflexive relations among structure, culture, and agency, following Cole (1996), we represent them in Figure 1 as a "mediational system":

Figure 1   Structure, Culture, and Agency as a Mediational System

Culture

Structure   **Agency**
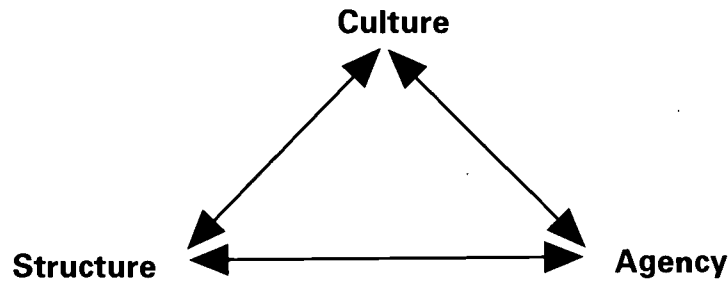
We will now concretize this rather abstract discussion by describing the implementation process of a whole-school reform initiative in Sunland County Public Schools and the AVID untracking program in Kentucky.

Implementing Whole-School Reform in Sunland County

In order to illustrate the reform implementation process as a conditional matrix, we present a single case study of a school in the "Scaling Up School Restructuring in Multilingual, Multicultural Contexts" study. This 4-year longitudinal study involves 13 elementary schools, each of which is implementing an externally developed whole-school restructuring design.[3] The schools are all located in "Sunland County,"[4] a Sunbelt school district, which serves over 300,000 students from diverse ethnic, racial, and linguistic groups.

As we discuss the implementation of an externally developed restructuring design at one school in Sunland County, we call attention to the possibilities enabled by and the constraints imposed on school reform by conditions in other settings. These considerations include changes in the nature of work in U.S. society, the social construction of race and ability, and district and design team policies. We also illustrate how teachers' actions in schools shape and are shaped by actions in other contexts. This case draws on qualitative data gathered over a period of 2 years at a school we call Prairie Sawgrass Elementary. The story of reform at Prairie Sawgrass involved a complex web of politics, economics, culture, and actions by various players in the design team, school, and district contexts.

District Actions Provide the Conditions for Reform at Prairie Sawgrass

We begin with background about Prairie Sawgrass Elementary School and how it became involved with the Audrey Cohen College System of Education, a New American Schools reform design. In 1994, Sunland County Public Schools entered into a contract with the New American Schools (NAS) corporation. Created in 1991 as part of Goals 2000, NAS secured financial support from foundations and corporations to fund "break the mold" schools through the sponsorship of numerous NAS designs, including the Audrey Cohen College System of Education (Cohen & Jordan, 1996).[5]

After contracting with NAS, the district established an Office of Instructional Leadership with responsibility "to bring a menu [of designs] to the schools," explained a district administrator. Teams of educators from all district schools were invited to attend and choose a particular design at a "fair" showcasing the different designs. In each school where 80% of the teachers voted to implement a NAS design, the district agreed to pay for teacher training, materials, and a full-time program facilitator.

Although the intent of the district was to provide schools with an array of options, local choice did not always occur, due to a series of actions by people in different contexts. For example, as part of an effort to revitalize the school, a school district liaison approached the principal of Prairie Sawgrass about implementing the Audrey Cohen design. Enrollment at Prairie Sawgrass Elementary had undergone a considerable demographic shift during the previous few years from a mostly white, middle-income student population to a majority of lower-income Haitian and Latino immigrants. The district liaison explained, "I knew their population was changing . . . so I said 'let me come to your school and do a presentation.' " The principal, however, believed that the school was chosen for the presentation because it was known to be a progressive school. Clearly, the reasons for reform looked different from the points of view of the school district and the school site educators.

The Intersection of the Design Team and the Local School Context

The Audrey Cohen College System of Education (ACCSE) was first developed at Audrey Cohen College in New York in 1964. In 1983, the College began to spread its "Purpose-Centered System of Education" to the New York City public school system. In 1992, Audrey Cohen was selected as one of the New American Schools Designs. The Audrey Cohen curriculum is not organized around traditional academic disciplines but around five "dimensions of effective learning and action": purpose, values and ethics, self and others, systems, and skills. Focusing on a "purpose," students in Audrey Cohen schools are encouraged to work with community members (in and out of the school) to plan, prepare, carry out, and evaluate a constructive project. ACCSE calls for teachers to develop certain skills and qualities: teamwork, comfort with the switch from disciplines to dimensions, a whole new web of contacts with community members, and a willingness to shift their role from directing to facilitating learning. The Audrey Cohen System requires that each school hire a school resource specialist. School districts pay licensing and participation fees for the program. In return, the school receives staff development, as well as guidance on standards and assessment (Cohen & Jordan, 1996).

The requisite 80% of Prairie teachers voted in favor of Audrey Cohen; however, some staff voted "yes" grudgingly. The principal explained that the teachers "know that I like new things, and that if it wasn't Audrey Cohen, it would be something else." Attitudes toward the model varied, but teachers were assured by the principal that they were not required to implement the Audrey Cohen design in their classrooms. The principal clearly developed a strategy to deal with the tension between accommodating staff, on the one hand, and satisfying district demands on the other. Thus, the reform process began with some teachers on board and others not.

Several educators at Prairie Sawgrass cited the changing nature of the economy and the structure of work as part of the logic behind current school restructuring designs, and in particular, the Audrey Cohen College System of Education. During the presentation, it was explained that too many students were entering the work force without knowing how to work with others. A teacher explained: "We have to get these kids ready for a new world of work. We're not all going to 4-year B.A. degree programs, because what is the big E? It used to be Education; now it's Employability." Teachers' comments showed that school reform at Prairie Sawgrass was about more than curricular innovation; it was, in fact, related to the political economy of the region.

The way in which some teachers socially constructed the ability of the minority students at their school also influenced their initial reactions to the reform. This is not surprising, as norms about race and social class inform educators' conceptions of

intelligence and ability, which in turn interact with the local political context when schools undertake reforms (Oakes et al., 1997). For example, part of the staff's initial training for the Audrey Cohen model included a video, which a few teachers criticized for its failure to reflect the types of students, particularly students of color, whom they teach. One asked, "Why are there 11 little white kids with verbal IQs of 130? It's not the best way to start a 5-day training session." This comment suggests that teachers saw a mismatch between a design developed elsewhere and their local community context. This perception, in turn, reflects the fact that racial and cultural differences are very salient in this community, which has undergone a rapid demographic change.

Translating Theory Into Local Practice: Educators' Experiences With Implementation

With district and design team funding, Prairie Sawgrass hired a full-time instructional facilitator to serve as a resource for teachers implementing the Audrey Cohen design. According to the facilitator, his role was to enable the teachers to implement the reform by "closing the gap between the theory of the design and the application." The facilitator attempted to adapt the Audrey Cohen design to the local circumstances of teachers' classrooms.

The implementation of the ACCSE design brought several positive things to Prairie Sawgrass. According to the facilitator, one of the benefits of the design was that it assisted the integration of curricular subjects. In keeping with the Audrey Cohen design, some teachers also used "the purposes" as a way to do something positive with their students in the community. For example, students in the second grade wrote letters to a city planner and a senator asking them to install a crosswalk and a stop sign at a dangerous intersection near their school. For teachers, the reform created conditions for creative, constructive community action with their students. Moreover, the principal introduced structural changes (e.g., common teacher planning periods and block scheduling) to enable implementation.

The applicability of the Audrey Cohen design with the culturally and linguistically diverse student population at Prairie Sawgrass was also an issue. According to a state mandate, students classified as limited English proficient (LEP) receive content instruction in their home language for 2 hours per week. The multilingual instructors had not been trained in the Audrey Cohen principles, because they were only on campus several hours per week. Thus, LEP students sometimes missed the enriching activities related to the reform. In addition, some regular classroom teachers felt that design materials or elements included "nothing specific that addressed ethnicity or being multicultural." As one teacher explained, "that you have to provide yourself." Despite the specific lack of attention to multicultural issues, some teachers were able to adapt the design successfully to their classrooms.

ACCSE asks teachers to build upon and use students' local knowledge. Some teachers thought the model had to be modified, because the students at Prairie Sawgrass, unlike those in the Audrey Cohen training video, brought very little knowledge to the classroom. One teacher stated: "These kids have not been to the fire department, to the zoo, to the library, they haven't been anywhere! There is no prior knowledge to work on." Teachers' perceptions of students as empty vessels constrained them from seeing the Audrey Cohen system as workable. Clearly, these teachers did not see the intent of the design team. On the other hand, some teachers did find ways to build upon students' knowledge and experienced more success in implementing the program.

12

A Process of Mutual Adaptation:
The Design Team Response to School Actions

Not only was the Audrey Cohen design molded to the school, but also, in certain instances, the adaptations that teachers made were taken back to Audrey Cohen College to further refine the design for use in schools elsewhere. The instructional facilitator at Prairie Sawgrass explained this process of mutual adaptation (Berman & McLaughlin, 1978) as it pertained to his school site: "Audrey Cohen is still being developed, and the development is taking place right here." In fact, the teachers at Prairie Sawgrass were featured in a new training video for the design, and the facilitator traveled to other schools around the country to assist in implementation. However, not all teachers saw the fact that the design was in a state of flux as a strength. As one teacher remarked: "They had never perfected the [model]. They [the design team] were making changes as they were going along."

In some respects, the local adaptations created some discontent among design team representatives who wanted the design to be implemented exactly as presented. The school's design facilitator explained: "You have to make sure that when you walk into an elementary school in Memphis, Audrey Cohen should look the same as at Prairie Sawgrass." The facilitator believed that the Audrey Cohen design team's belief in exact replication developed because they were only beginning to fully understand the realities of classroom life at the elementary level. A teacher echoed this belief, explaining that the materials they initially received were not appropriate for first graders: "It was a big, non-bound pile of papers with no pictures, nothing exciting, all black and white, and that was supposed to be a workbook for the children." Thus, even the tangible elements of the model (i. e., the materials) looked different from different points of view. After receiving feedback from the schools, the design team revised the workbook, making it more appropriate, which is a further example of how local, school-based responses to and implementation of the design influenced the design team to refine its model. Despite these modifications, some teachers felt that more improvements could be made.

Political and economic events in the district and within the design team created conditions for actions at the school. Although the design had a positive impact on teacher collaboration, integration of the curriculum, and constructive action in the community, the principal doubted whether it had any effect on students' norm-referenced test scores (NRT), the accepted measure of accountability in the state and the district. Even though the principal felt that NRT did not adequately measure students' progress, teachers spent considerable class time preparing students for the test, which was in direct opposition to the principles of the Audrey Cohen design. The pressure to perform on standardized tests was a very real constraint for teachers attempting to implement the reform and for the principal whose performance was also measured on this basis.

Accountability measures were not the only extra-school factor affecting design implementation; district staffing changes also had an impact. In 1997, the Office of Instructional Leadership was disbanded by a new superintendent. The person who had directed the office and forged the relationship with the New American Schools Corporation was moved into an entirely different position that was unrelated to school restructuring. These district actions became the conditions for school actions. At the end of the third year of implementation, the district withdrew funding for the facilitator position at Prairie Sawgrass, and the Audrey Cohen design expired. The change in district policy was attributed to a shift in power and politics, including financial concerns. The principal explained: "The regime prior to the one we have now was very oriented toward restructuring, putting in new programs, etc. But we have a new school

board now, a new regime, and they are very staunch Republicans, and the thing is to save money."

The district policy changes also created a response from the design team. Because Prairie Sawgrass was an Audrey Cohen College System of Education demonstration site, the College made efforts to try to cover the facilitator's salary. However, at that point, the school year had already begun, and the facilitator had been placed (without his knowledge) in a position elsewhere in the district. The Audrey Cohen design team offered to fund someone else in the facilitator position, but the principal said no. She explained: "He was dynamic. It just wouldn't go. He was the program. Literally." Interestingly, there was no discussion at the school about the design not continuing beyond the third year of implementation. The principal explained: "I didn't have to tell [the teachers] anything. When they saw that [the facilitator] wasn't here, they knew."

While some teachers were quite happy to see the Audrey Cohen model go, teachers who had put a lot of work into implementation were very disappointed. Even if they had wished to try to continue, they no longer had materials to do so. Angered by what she perceived as a lack of support, the principal had asked the Audrey Cohen design team to come and collect their materials, which they did. When we visited the school, we saw little evidence of implementation of Audrey Cohen designs in classrooms. The ACCSE restructuring model had come, and 3 years later, it was gone. While it may have influenced a small number of teachers to change their practice, it did not appear to lead to an overall increased capacity for change and teacher development at Prairie Sawgrass.

Replicating the AVID Untracking Program in Kentucky

We now turn our attention to a second concrete illustration of the reform process conceptualized as a conditional matrix: the Advancement Via Individual Determination (AVID) untracking effort. Our analysis examines the dynamic interplay among structural constraints, culture, and individual actions when educators attempted to implement this reform effort.

State Actions Set the Stage for Adoption of AVID in Kentucky

Actions taken by the Kentucky State Department of Education to address that state's troubled educational system provided the impetus for introducing the AVID program. These actions were motivated by Kentucky Supreme Court rulings.

In 1989, the Kentucky Supreme Court declared that "state revenues were unequally allotted to local school districts" (Richardson, Flanigan, & Blackbourn, 1991). The state's school system was declared unconstitutional, because the inequities between rich and poor districts were such that children in poor school districts did not receive an education equivalent to that of students in well-to-do districts. The Kentucky Supreme Court directed the state legislature to remedy the problem.

In response, the state legislature passed the Kentucky Education Reform Act (KERA), which mandated a total overhaul of the K-12 public education system. This 1990 legislative act "was designed to result in equitable educational services to all students" (Fenster, 1996, p.1). KERA increased state spending for education. Decision making was devolved to the schools with the intent of empowering local educators to improve the education of their students. A high ranking Kentucky educational administrator reported:

This was seen as an excellent opportunity to come in and revamp education in Kentucky. So the [state] reintroduced site-based decision making [SBDM]. They mandated that every school would have SBDM by 1995.

Although educators debate whether KERA has significantly improved financial equity across Kentucky schools (Richardson et al., 1991, p. 17), the educational reform package clearly put into play a discourse that focused on practices and attitudes aimed at change.

The State Department of Education placed Kentucky schools in competition with one another. Each school was directed to improve test scores by 5% each year. Schools that exceeded that goal by 1% or more were categorized as "rewards" schools. Rewards schools received additional funds, which could be quite extensive. For example, one school in our study received almost $300,000 based on its improved performance in 1997. Schools that met but did not exceed their testing goals were designated "success" schools. Schools that stayed at their baseline or dropped 1–4% per year below their baseline were considered to be in "decline." Schools that dropped by 5% or more below their baseline were declared to be in "crisis." Schools in crisis were given technical assistance in the form of a "distinguished educator," who was assigned to the school to facilitate academic achievement. If the school still did not improve, the principal could be removed, teachers could be terminated, and the school could be taken over by the state.

The selection of a new education commissioner provided the catalyst for placing AVID at the center of the Kentucky education reform effort. In 1990, Dr. Thomas Boysen was recruited from his position as Superintendent of Education in San Diego to become Commissioner of the State Department of Education in Kentucky. Boysen had promoted AVID in his previous position because of its success in raising the academic achievement of minority students in San Diego schools. Responding to the imperatives of KERA, Boysen lobbied for AVID to be introduced in Kentucky schools. He viewed AVID as a program that could help many of the students who had previously been underserved and who were underrepresented on college campuses.

Boysen convinced the state legislature to devote $500,000 to AVID in fiscal year 1993. His office used some of this appropriation to pay AVID administrative fees, to purchase AVID curriculum materials, and to send Kentucky's AVID school site directors to professional development workshops in San Diego. Because the state was willing to support implementation of AVID as a significant component of the KERA reform program, districts were eager to get their share of AVID funds. School districts with the highest percentages of impoverished students and the largest minority populations were invited to submit proposals explaining how they would implement AVID at their schools to improve the educational performance of their underserved students. Schools were asked to certify in their applications that a segment of their population fit the AVID student profile of high test scores with mid-range academic performance and to agree to send proposed AVID staff to professional development workshops in San Diego.

In 1993, the state approved AVID reform applications from 19 schools. The number of Kentucky schools implementing AVID peaked at 30 and has now leveled off at 25. Schools have used their grant money to pay tutors, to obtain professional development during the school year, and to purchase curriculum materials from AVID Center, the organizational entity responsible for moving its tested prototype program to additional sites.

Interactions Among the State, Districts, and Schools Influence Implementation

The implementation of an educational reform is not a one-directional process determined totally by the actions of educators or policy makers at high levels of the system. Players in district and school offices interacted with those in state offices to influence the shape of the AVID program in Kentucky.

Despite significant support among educators at many schools, the initial adoption of AVID was not supported by everyone involved. The state-mandated direct application process contributed to this ambivalence. The direct appeal to schools overlooked the importance of gaining support from all key participants. For example, state personnel in the curriculum department were expected to train AVID team members; yet, according to the AVID state coordinator, they were already overworked and viewed this new assignment as an additional burden.

The direct application procedure also bypassed district superintendents, who coordinate educational policy between the state and the schools. Because they didn't participate in the decision to adopt AVID, district superintendents didn't always support it when forced to choose between AVID and other programs competing to meet KERA goals. This lack of "buy in" is especially crucial, because state funding for reform programs such as AVID diminishes over time. Until the year 2000, AVID programs will continue to receive funding from the state. At that point, the schools will be left to raise their own money. The district superintendent's support is thus crucial in sustaining funding after the state's initial pump-priming contribution ceases.

According to a high-ranking Kentucky educator, the initial implementation of AVID in schools was burdened with problems beyond AVID Center's control from the outset. She stated that the first AVID state coordinator did all she could in the initial days, but it was difficult to build a sense of team. While the State Department of Education was supportive in principle (and certainly in money), it did not offer the technical supports needed to develop the program. The first AVID state coordinator was expected to assist all 19 school sites, some as much as 5 hours drive from her office; serve as a public relations representative of the program; plan and implement professional development; and act as liaison among the schools, the State Department of Education, and AVID Center. These logistical burdens hampered program development in some schools.

The early days of scaling up AVID were also difficult because not all educators saw the connection between AVID's practices and KERA's goals. Some Kentucky educators who attended the initial professional development sessions in San Diego could not distinguish AVID from their current practices and wondered why they should import a program such as AVID from California, at considerable cost, when the methodologies were well known in Kentucky. Others, including the current AVID state coordinator, saw the connection between KERA and AVID. She expressed the plan to adopt AVID in strategic, political terms:

> Why reinvent the wheel? AVID already had things in place. We wanted to get it [KERA] in place quickly. Why spend time doing the development of a program like that? It would make life easier. It was really the district people that were less in favor of AVID, and it was really because they didn't see that AVID was offering them all that much.

These examples show that the social organization of AVID programs is influenced by actions taken in government offices and courtrooms. We will now show that reform efforts are also influenced by what Waller (1932) and Sarason (1982) call "the culture of the school."

Design Team Reform Efforts Interact with the Culture of the School

The AVID design team has adopted a "franchising" implementation strategy. New programs are expected to adopt, with a high degree of fidelity, program components called "AVID Essentials." .

AVID Essentials call upon schools to identify high-potential students and place them in college-prep classes, offer the AVID elective class during the regular school day, identify a teacher to serve as AVID coordinator and teach the elective class, use AVID curriculum materials and pedagogical practices, participate in summer staff development activities, use college students as tutors in AVID classrooms, create a school "site team" to assist in program implementation, participate in a certification process, and gather and use data on student performance to maintain program quality. If the local school uses the entire package of AVID Essentials, it is entitled to use the AVID name. If it does not conform to central guidelines, then its "license" is subject to revocation.

One of the essential features of the AVID program is the special elective class. AVID Center directs participating schools to provide students each week with 2 days of instruction, 2 days of tutoring, and 1 day of motivational lessons, guest speakers, or field trips. Almost all AVID programs offer the elective class in the prescribed manner, but this program feature generated friction at some school sites, which had block schedules containing no flex period. These schools preferred to schedule the AVID class after school or only once or twice a week. This significant deviation from the model has not been easily accepted by AVID Center.

Tutors are another essential feature of the AVID program. In addition to providing academic help, tutors become role models for the students. Tutors who attend college can share their experiences with AVID students and stimulate their interest in attending college. Enticing tutors to come to some of the remote areas of Kentucky created a serious obstacle to program implementation, however. A state education official said, "We have very isolated schools. Some are 6 hours away from a college. Getting tutors to come is impossible." Schools responded in creative ways to this challenge. One high school in southern Kentucky, for instance, used high school seniors with well-established academic records when college students were not readily available. While this adaptation solved a problem at the local level, it was not well received by AVID Center, which saw it as a deviation from essential practice.

The hallmark feature of AVID's untracking effort is the placement of students who had been on non-academic tracks into college-prep classes. The intention is to have students take advantage of heterogeneous grouping. Previously underachieving students are expected to benefit academically by learning side-by-side with high-achieving students. Almost all high schools in Kentucky implement this feature as designed by AVID Center, but educators at one high school we studied implemented this design feature quite differently. They have placed AVID students in college-prep classes to be sure, but these classes are segregated both academically and physically. AVID students take all their classes as a team in a separate wing of the school. In this organizational arrangement, AVID students are not mixing with high-achieving students, which significantly modifies an important program design element. The educators at the high school explained that they arrange AVID students' education in

this manner to sequester them from negative influences. However commendable that goal is, it has the unintended consequence of preventing AVID students from enrolling in honors courses, because those are reserved for students in another team, which meets in another part of the campus.

In summary, these departures from AVID Center's design concept exemplify the way in which educators at school sites modify program features to meet local needs. However, these modifications can cause friction between school sites and the design team, because the design team wants new schools to implement the program's essential features exactly, without introducing variations. Resolving tensions between central control and local autonomy is important. If they are not resolved, the survival of the scaling up effort may be threatened.

These examples also show that local educators *make* educational policy; they do not just respond to actions imposed upon them. Actions that educators take during later stages in the implementation process modify the original policy. These locally generated modifications teach us to see the policy process as a co-construction, not as an imposition of policy from the top down nor as a passive flow-through device.

Mutual Influences in the Implementation System: The Design Team Responds to External and Local Actions

Design teams are primarily concerned with implementing the essential features of their reform effort, but they also respond to actions taken in other situations both "above" and "below" them in the implementation system. The way in which AVID has changed the definition of its targeted student population is a case in point.

From 1980 until 1995, AVID recruited low-income students with high academic potential from ethnic groups historically underrepresented in colleges and universities. In practical terms, this meant high-potential African-American, Latino, and Native American students were targeted. To be sure, not all students in AVID were from these ethnic minority groups, but this was the operational definition of the AVID student.

In its current literature, AVID now says that it recruits "students in the middle." Race, ethnicity, and minority status are not mentioned. AVID altered its original policy partially in response to actions taken by the state of California and partially in response to sentiments expressed at new school sites. In June 1995, the regents of the University of California (UC) passed a resolution forbidding the nine campuses of the UC system from using race, gender, and ethnicity as supplemental criteria in admissions decisions. In November 1996, the voters of California passed the so-called "California Civil Rights Initiative" (Proposition 209), which reinforced this position.

This shift in focus by AVID Center in response to California state law has influenced student selection at school sites in Kentucky. Educators at two Kentucky high schools confirmed that they recruit students without taking race or ethnicity into account:

> I see a lot of students that are the C student, that never causes anybody any problem, do their work, and you probably wouldn't even know that they went to class, occasionally maybe speak up. All these programs, all this money set aside for all the "A" students, maybe for the "LD" student, I mean the learning disability student, and behavioral problem, and special ed and everything. Yet the greatest number of students that we have are in the middle, the "C" student, and there are no programs for the "C" student. And that just hit me in the head, and I was thinkin', "My God, this is finally something for the mass of society," something that would be great

for our kids that get by, you know, I mean with a little push, they could go out and go to school, or they could stay in school, or you know, the motivation, the self-esteem.

This educator welcomes the shift in AVID's policy, because it reduces tension among the faculty and between the program and parents concerning recruitment:

Now the mission has changed, so it's much easier now. It used to be different than now. Now you don't have to be underrepresented. You don't have to be on free or reduced lunches. You don't have to be a minority, and I even like the program more, because we were losing a lot of (voice gets quieter) white kids . . . because . . . you know . . . .

Educators at another Kentucky school implementing AVID have taken similar steps. When asked how she would define AVID, the counselor at this high school responded: "I define it as a program to offer support for students who attend college or some postsecondary educational setting." This definition is remarkable, because it doesn't mention students' ethnicity, minority status, or socioeconomic status as selection criteria. Indeed, this counselor explained that her high school was more comfortable depicting AVID in nonracial terms because of faculty and parental concerns. A program presented in "majority/minority terms," she said, is "perceived as negative" in her community.

Further evidence that implementation is co-constructed and not merely a top-down process is provided when actions at school sites result in changes in the structural features of the original reform design. Educators in Kentucky have told us repeatedly that their situation is different from the situation in California. For example, the population of students served by AVID in Kentucky is unlike the AVID student population in California. There are few Latinos or Asians; therefore Kentucky educators see little benefit in AVID's curriculum designed for second language learners. African Americans, a target population for AVID programs in Kentucky, are not evenly distributed throughout the state; they tend to reside in the western region. As a result, AVID students targeted in eastern Kentucky are almost exclusively from low-income white families. Furthermore, college entrance requirements in Kentucky are quite different from those in California. California's "A-F requirements" do not correspond to the entrance requirements for Kentucky's universities.

Because educators in Kentucky perceive their educational context to be different from California's, some of them have reacted negatively to design features required by AVID Center. The professional development and curricular components are cases in point. Some educators in Kentucky resented the requirement to purchase AVID's curriculum materials, because they perceived them to be designed for use in California. They also did not understand the need to attend professional development institutes in San Diego, citing high travel expenses. Some of the educators who attended summer institutes in San Diego said that they found them to be too focused on preparing students for California colleges and universities and on reform efforts specific to that state. These respondents emphasized that AVID is a good program, but that its curricular materials and professional development are "very costly."

In response to these local concerns, AVID Center made a significant organizational adjustment. They secured a multi-year grant from the Dana Foundation to establish an Eastern Division office in Newport News, Virginia. The Eastern Division office assumed professional development, personnel, recruiting, and pedagogical responsibilities for Kentucky and other states in the region.

In practice, this modification means that curriculum can be designed for local use, and AVID teachers can be educated less expensively. Educators from Kentucky, Virginia, and North Carolina now attend professional development institutes in Virginia rather than California, at considerable savings. In more general terms, this program modification illustrates how a design team can transport its prototype program to additional sites while remaining sensitive to local concerns.

Conclusions

Our admittedly preliminary analysis of Prairie Sawgrass in Florida and AVID in Kentucky offers snapshots, not complete renditions, of scaling up educational reform. However, even these brief snapshots reveal that the complex and sometimes messy reform implementation process is marked by several important considerations:

1. Reform efforts in schools do not succeed simply on technical considerations, nor do they proceed in a linear fashion, fixed in time and space. Analyzing the policy implementation process as a conditional matrix affords a better opportunity to understand the complexities of a successful prototype's implementation than does a unidirectional (especially top-down) interpretation.

2. The consequences of actions taken in one context become the conditions for actions taken in other contexts. Some educators may initiate reform efforts, others may push or sustain them, still others may resist or actively subvert them. This range of actions shows that the agency of educators is part of a complex dynamic, shaping and shaped by the structural and cultural features of school and society. Certainly, Audrey Cohen was introduced in Sunland County and AVID in Kentucky as the result of a top-down push by state policymakers. However, actions and decisions at the district and school-site levels, in interaction with the Audrey Cohen and AVID design teams, have changed the organizational structure and everyday practices of these reform efforts. In response to teachers' concerns, the Audrey Cohen developers made significant changes to program materials and their training video. AVID Center, sympathetic to and forced by the actions of local schools, modified programmatic and organizational arrangements (e.g., established an Eastern Division office and redefined AVID students from "underrepresented minorities" to "students in the middle").

3. The implementation process is viewed differently from different perspectives. The principal at Prairie Sawgrass believed the school was asked to adopt the Audrey Cohen model because the school was known to be progressive, whereas the district administrator viewed the school as needing reform. While educators in AVID Center saw its curriculum packages and San Diego-based professional development activities as essential to program fidelity, some of the educators in Kentucky schools regarded them as insensitive to local circumstances. Although local arrangements may vary significantly from what designers intended, the changes may be necessary to sustain the reform.

4. The culture of the school mediates educators' actions and structural constraints. By segregating AVID students in separate programs, holding the AVID elective class after school, and using tutors in distinctive ways, school educators, struggling with practical, everyday challenges to meeting AVID essentials, reshaped local AVID programs. At Prairie Sawgrass, teachers' social constructs of race and ability—that is, what some teachers thought the students at their school were capable of achieving—mediated their attitudes toward implementing the Audrey Cohen design.

5. The actions of local educators reflect institutional distribution and application of power. To be sure, the incumbents of some positions have the power to impose

meaning (policy) on others. The Kentucky government's decision to initiate the Education Reform Act certainly influenced the practices and activities of educators throughout the educational system. So, too, the decision by the former superintendent of Sunland County to establish an Office of Instructional Leadership and enter into a contract with New American Schools powerfully influenced actions at the school and district levels. However, school-site educators did not respond to the governing bodies' actions passively and automatically, as though they were irresistible pressures bearing down on them. The actions of educators in Kentucky and Florida in the face of state mandates suggest that we must examine the way in which power is interpreted as well as the way in which it is imposed.

End Notes

1. CREDE Project 5.2. **"Scaling Up:" Effects of Major National Restructuring Models in Diverse Communities of Students At Risk.** Sam Stringfield, Amanda Datnow, Steven M. Ross, & Lana McWilliam Smith

2. CREDE Project 5.3. **Tracking Untracking: Evaluating the Effectiveness of an Educational Innovation.** Hugh Mehan & Lea A. Hubbard (see Mehan, Villanueva, & Lintz, 1996)

3. The restructuring designs used by these schools include three New American Schools designs (Audrey Cohen College System of Education, Modern Red Schoolhouse, and Roots and Wings) and three independent designs (Coalition of Essential Schools, Core Knowledge, and Comer School Development Program). For more information on these designs and the methodology for the "Scaling Up" study, see Stringfield, Datnow, and Ross (1998).

4. To preserve confidentiality, pseudonyms are used for all place and person names.

5. For detailed information on all of the NAS designs, see Stringfield, Ross, and Smith (1996).

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