Chapter Three

CHANGES IN NAS DESIGNS

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In contrast to the previous chapter, this chapter deals with the evolution of the individual designs themselves. Unlike the other research tasks with specific views of events in particular phases, this task covered a longer time period, from 1992 to 1998. It takes a case study approach using the designs as the unit of analysis to understand the changes to designs over time and why they occurred. Original designs submitted in 1992 are the starting place for the historical comparison. Newer documents, submitted to NAS and RAND, were used to mark the changes in designs at pertinent intervals. NAS in 1998 requested that design teams submit final design documents. These are used as the final point of comparison for the evolution.

This research relied on the accumulated data from previous studies, especially the interviews with design teams, document reviews, and implementation analyses. These data sources were reviewed comparing designs as they were first proposed to the latter documents describing the designs. Notes from yearly interviews with design teams were reviewed to understand the design teams' perspectives on why the changes were occurring. In addition, notes from our implementation analysis and site visits were reviewed for insights offered on actions taken by districts and schools in response to the teams. The initial draft was submitted to design teams for comment, an essential step in the process. Their insights and corrections were added to the analysis of design evolution.

In this analysis, we paid special attention to the concepts of comprehensiveness and coherence. The theory of learning embedded in the

designs was premised on the need for comprehensive and coherent school designs that could provide a unifying vision to the schools. Over time, we looked for any signs that the designs had become more or less comprehensive and coherent. Internal inconsistencies or the promotion of extreme local adaptation would be indications that that a design was becoming less unifying in its vision.

This chapter first provides a rationale for why generally the designs could be expected to change over time taken from the implementation literature. It then reviews the findings from the analysis, looking at elements and their changes over time and then probable causes for the changes. Finally it draws out implications.

GENERAL VIEW OF WHY EDUCATION INTERVENTIONS CHANGE OVER TIME

The original design team proposals forcefully expressed ideals for the quality of teaching in the nation's schools and provided some specifics about how to meet those ideals. They blended progressive educational practices with more-traditional ones, and even a few conservative ones, into new combinations intended to produce constantly improving schools. They incorporated intentions by teams: to develop unique standards and assessments; to create curriculum and instructional strategies to support those standards; to develop better ways to group students to promote learning; to demand significant school-level autonomy; to require parental choice of schools; and to provide health services at the schools. They represented a heady brew of some of the most innovative ideas by some of the most well-known educators and some of the most practical tried and true methods. In themselves, they are of interest as historical documents of what passed for innovation at the time.

They are more interesting because by the end of the scale-up phase, the designs had changed dramatically from these original plans. Some of these ideals remained in the design team documents; many did not. This phenomenon has been seen before in education and in other attempts at organizational improvement where innovations change slowly over time, often in unexpected ways.

This result presented an opportunity to explore why the education system lends itself to this phenomenon of retraction, mutual adjust-

ment, or wandering innovation. RAND analyzed the evolution of designs to understand what changes had taken place and why. In part this was necessary to be able to understand implementation and ultimately whether the designs had effects in schools. Just as important, we believed that these changes and the reasons behind them might offer important lessons to groups attempting education reform.

In judging the effects of these types of adaptations, past policy analysts looked for strict adherence to the original policy or policy fidelity (Goggin et al., 1990)—in this case strict development of the design as originally outlined. For the purposes of this chapter we propose a different scheme that accords with the original ideas of the RFP.

The comprehensive design was to align the standards, assessments, curriculum, instruction, professional development, and governance components of a school and supporting policies into a complementary whole that worked to produce a coherent and effective educational experience for students to enable improved student performance on multiple dimensions. The operative words are *coherent* and *complementary*, characteristics that could lead to a *comprehensive* whole. The designs after several years might change, but they should still be coherent. If, as they adapted or as they were implemented, the designs become incoherent with internally inconsistent components, then the concept of a design itself is brought into question.

The literature on external change agents provides insights into what expectations were reasonable for NAS as it proceeded; however, NAS was not necessarily aware of these. Starting in 1991 with the creation of design proposals, one might have reasonably expected the following:

- The number and emphasis of the teams could be expected to change given their dependence on NAS. As with other efforts of this kind, the livelihood and political fortunes of the parent organization or major funding source would affect the practices of the funding recipients. The development and funding picture of NAS would have an effect on the teams themselves and their ability to meet their vision.

- The designs and their theories of learning including their notions of standards, assessment, curriculum, and instruction (Fullan, 1999) could be expected to have significant further planned development over time. NAS chose a developmental approach and expected teams to carefully plan further development needs such as more fully articulated curriculum packages aligned to more fully developed standards, etc.
- Significant changes to designs and design teams could be expected because of unplanned mutual adaptation during the demonstration and scale-up phases as teams interacted with local districts and schools. Language in the RFP implied that NAS expected the design teams to learn from their experiences in real schools during the first several years and further improve their designs to ensure the final outcomes desired—significant student performance increases. This benign view of mutual adaptation emphasizes that the end product of change would still result in comprehensive and coherent designs leading to improved performance, but that the implementing site's fidelity to the specifics of the design would vary from locale to locale.
- It could also be expected that adaptation to local district politics and prerogatives, poor communication by design teams about their designs, shifts in funding, leadership turnover, and competing priorities would lead, in some instances, to incoherence and fragmentation as teams and schools struggled to make progress. Alternatively, schools might lack the capacity to undertake design-based reforms. School staff might not have the time or capability to comply with the design requirements and without further support might fail in their implementation. This equally plausible scenario was not recognized in the RFP.
- While the RFP asked for implementation strategies, few teams focused on these in the proposal stage (Bodilly, 1996, 1998). The literature indicates that these would have to be developed for the teams to be successful in implementing across many schools. Thus, it could be expected that teams would create more fully developed implementation strategies over time, especially ones that might address issues of teacher capacity or lack of funding. In addition, these implementation strategies might become more powerful interventions than the original designs, under certain conditions.

We now turn to the review of the changes made to designs. We then summarize the types of changes that took place and why. We end by summarizing the implications for other types of reform efforts.

FINDINGS

Our review of design changes and why they occurred bore out the expectations outlined above and reinforced the earlier literature on external change agents. Indeed, during the NAS initiative from 1991 to 1998, the NAS portfolio of designs changed, the designs themselves changed, and strategies for implementation that were not in the original proposals developed. We found that these changes were driven by: planned development of the teams; adaptations to teacher and student needs in the scale-up districts; adaptations to the generally non-supportive policy environment in the scale-up districts; and learning from the teams.

Some of these adaptations and developments appear to have positively affected the concept of a design, making the designs more adaptable to local circumstances, implementation more easily achieved, and the design elements more internally aligned with one another. Other changes appear more problematic as they seem to lend themselves to maintaining or increasing the incoherence in schools rather than unifying schools behind a single vision.

Intervening Experiences

Several experiences or contextual factors proved crucial to the adaptations made to the designs from 1992 to 1998. We cover a few examples here to help the reader understand the interactions that took place that helped shape the designs from their original ideas to where they stood as of 1998.

Standards, Assessment, and Accountability Development. When NAS began, few states and districts had adopted standards and assessments. Therefore, each design team had taken pains to discuss what standards it would use as the basis for its design, how it would develop them, and how it would develop assessment systems to match. Each argued how it would carefully match curriculum and instruction to these standards. Teams began the development of

their standards or meshed together existing sets from the few professional societies standards that existed.

By 1998, NAS was riding a wave of state-mandated standards, curriculum, assessments, and accountability. In particular, the NAS district partners had state or district standards that they had taken pains to develop and begin to implement. Given high student mobility rates in several districts and high-stakes accountability mechanisms in place, these districts insisted that design teams meet the state or district standards and use those assessments. By 1998, regardless of what their original stance on development of their own standards had been and of what progress they had made toward that development, all teams agreed to use existing standards and assessments in the partner districts and changed the language of their designs to indicate that the design standards and assessments would be accommodated to the districts in which the teams worked.

Curriculum and Instruction. The teams took varying stances on curriculum and instruction in their proposals, but one theme was clear: Curriculum and instruction were to be aligned with standards into a coherent whole. Most favored at least some significant amount of time in the school day or year dedicated to project-based learning, expeditions, or interdisciplinary exploration. Several teams required that teachers develop this curriculum using the design team standards. In addition, some had significant parts of the curriculum written into prescribed units or topics to be covered. Adoption of this curriculum required the use of specific textbooks or design team–supplied materials. Pedagogy favored the use of block schedules, flexible space, nonstandard reading and resource materials, and up-to-date technology. In short, the design teams, even those with prescriptive materials, favored a very rich and stimulating approach with significant need for teacher time and flexibility. With the exception of the RW design, none had developed or provided basic skills acquisition programs.

The districts in which the teams worked immediately challenged these design tenets. First, several districts, given their student populations, were focused on basic skills acquisition. They demanded design teams provide more curriculum and instruction geared toward basic skills acquisition. In some districts, all schools were forced to adopt districtwide textbooks and basic skills acquisition

programs. This was reinforced by the growing need among these schools to perform well on state assessments that tested basic reading and math skills. Second, teacher time for curriculum development was highly constrained in all districts.

During the development and demonstration phases, design teams continued in the development of curriculum and instructional practices as promised. When they began working in the scale-up school districts, however, this progress slowed considerably. In the face of these demands and teacher needs, the teams oftentimes made concessions in their design documents for adopting existing district-mandated basic skills curriculum. Alternatively, they quickly adopted existing basic skills packages as part of their designs.

In addition, given the lack of time for teachers to individually develop curriculum, the teams began to develop more curriculum units or to move away from notions of teacher-developed curriculum toward teachers sharing existing units. This cut down on the total amount of teacher time in any given school needed to implement the design. It did, however, move away from some teams' original notions that teachers needed this curriculum development experience to become better teachers. Oftentimes in actual implementation, the design curriculum and instructional strategies were confined to social studies and science periods after the teachers had delivered the district-mandated math and language arts curriculum.

Other Elements of the Designs. Similar patterns occurred for other elements of the designs, including student placement and grouping, professional development, governance, and supporting services. For example, even during the demonstration phase it became clear that districts would not give schools the autonomy (including budgetary and staffing control) required by several designs. It also became clear that the local context in many areas would not allow schools to develop the health and other support services at school sites that some designs had described. Teachers often did not understand the reasons behind certain student placement practices and refused to implement them. Design teams began to drop these notions from design documents or at least removed strong statements concerning them. With a few exceptions, the designs were changed to drop many of these elements or to take more-accommodating stances.

Assistance and Support to Schools. While many of the elements of the designs became clouded in response to working in the scale-up districts, at least one area blossomed—the development of implementation strategies and supports. Here the scale-up experiences pushed the teams to provide more services and more assistance. Working with demanding schools with low capacity for change, design teams concentrated individual team efforts on the development of assistance packages and implementation supports—better articulated descriptions of the designs, a process for selecting designs, specific fee information and assistance choices, professional development options, training supports, curricular materials, visits and networking with other design-based schools, newsletters, and websites. In particular, NAS design teams found the introduction of the intervention into the school was crucial to the eventual success of the effort. The teams attempted to improve this process and the materials supporting it to encourage informed choice on the part of teachers. However, district context and resources still heavily influenced the process in each locale.

Quality Assurance. The teams made strides in quality assurance through the significant development of what came to be known as "benchmarks." This came about at least in part as an adaptation to the demands by districts and the clients for accountability. Schools had reported in earlier phases that they did not understand what was expected of them. In particular, they wanted to know what type of changes were expected and when. Later in the scale-up phase, districts asked the same questions. They wanted to know how to gauge the progress of schools in terms of implementation. The designs began to develop such information about milestones in implementation—commonly referred to among NAS associates as benchmarks or "implementation checklists."

Benchmarks or checklists began to perform several functions. First, they offered the opportunity of better communication of expectations between design teams, schools, and districts as to what needed to be accomplished and when. Second, they could be used by evaluators, such as the University of Memphis in the case of the Memphis City School system, to measure implementation. Third, they could be used by design teams to measure and understand the progress of schools and to help improve their assistance to ensure

strong implementation. Thus, it was through client demand that an important quality assurance mechanism came about.

Yet, districts have also inadvertently limited the furtherance of quality assurance. By insisting on one accountability measure—performance on mandated tests—districts have influenced teams' development of assessment components. Teams had little incentive to develop unique tests or assessments geared to their more complex performance expectations. They had every incentive to accept the tests, but still advocate for curriculum and instruction that teaches more complex or interdisciplinary approaches than those measured by the mandated tests.

SUMMARY AND POLICY IMPLICATIONS

Our analysis found that designs changed over this time period in several ways: planned development; response to the needs of students and teachers in the schools served; adaptation to conflicting policies, rules, and regulations; and complete reconceptualization of the design. We found the following:

All designs continued in their planned development. During early phases, design teams developed their own standards or adapted others. Throughout the initiative, schools and teams developed significant amounts of curriculum that could then be shared among new schools. Teams improved processes for the professional development of teachers.

Interactions with students and teachers in the scale-up districts led to unplanned adaptations. The experiences of going to scale-up in large, poor, urban districts led to the adoption or development of basic literacy and numeracy programs and the development of processes to train teachers to develop rubrics for assessing student work against state or district standards. Lack of teacher time and capability led all teams to further develop their assistance packages and to develop curricular and other materials more suited to this group of teachers and students.

Interactions with existing policy environments resulted in further unplanned adaptations. Designs adapted significantly to the pressures posed by states, districts, schools, and unions to meet the exist-

ing regulatory, organizational, and cultural environment. The reality of working in the scale-up districts drove design teams to gradually lengthen implementation schedules, drop elements of their design, or move from required activities to principles to be worked toward. In particular, designs now generally accept state or district standards, assessments, and mandated basic skills curriculum. They also work within the level of autonomy that is normal within the district. The exception is the NARE design, which did not have a gradual adaptation to districts. Rather, it held to its design until it formally reconceptualized the entire design and dropped the old design.

Adaptation has led to the probability of significant local variation among schools using the same design and potential incoherence in design-based schools. The accommodating stance taken by most designs in their newer versions of design documents allows significant variation in sites associated with a single team. Teams allow mandated standards, assessments, curriculum, and other professional development to substitute for their own. This raises the probability of the incoherence of the schools' programs. Allowing a large range of implementation around elements of design instead of strong adherence to design principles increases the probability that implementing schools will still have fragmentation and incoherence as individual parts of the design adapt to already existing fragmented structures.

Consistent with expectations set up in the literature review, the designs did adapt over time. While some of the development in the designs that took place has been positive from the point of view of enabling schools to improve, other developments appear less likely to help schools. For example, the growth in the assistance packages, the further development of curricular units, and the development of protocols for school choice of design all appear to be positive adaptations. The development of basic skills curriculum also is positive if it is well meshed with principles of the design and not simply a quick add-on to meet district demands. Other changes, while understandable, remain more problematic. This includes the less-than-thoughtful mix of standards, curriculum, instruction, and assessment now permitted by the design documents. While the standards movement as a whole might raise the achievement bar nationally, individual schools implementing designs in the above

fashion will continue to have an unintegrated mix of standards, curriculum, and assessments.

In part, this discussion is undertaken at this point to help readers understand what occurred in implementation in the scale-up phase and why implementation and performance results might not be as dramatic as expected. A major element—a coherent design—was often missing or was constantly in the process of being revised. It should also point to the fact that the design itself was not the only intervention, but as time went on, the implementation assistance, what NAS termed "design-based assistance," became an important part of the intervention. Consistent with the literature, improved student outcomes could be less a function of the designs' adoption, especially given the weakened nature of many of them, and more a function of strong assistance given to the schools in strategic planning and implementation.