

Unraveling the Mystery of Institutionalization

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"The remedial labs? They would keep them going unless something really wrong happened. That's the way it is around here. Things keep going as long as there aren't waves."—Lab teacher, Banestown site.

"Teachers get no rewards for using new programs. We do new things all the time, so the new legal program, IPLE, isn't special. And besides, unless we implement IPLE as a whole program, not just pieces of it, teachers will resist it because of all the handout copying we have to do now. We don't have a clerical staff to do that."—Teacher, Burton site.

**All site names are pseudonyms.*

Whether or not a program becomes a durable part of the curriculum depends on teacher mastery and commitment and administrative action—as well as other factors.

These two schools were part of an intensive study of 12 elementary and secondary schools included in the Study of Dissemination Efforts Supporting School Improvement (Crandall and associates, 1982; Huberman and Miles, 1982).

In both schools, the innovation was being carried out effectively. Yet a year later, one school's program, like many "new things," had disappeared. The other had continued, by somehow getting "built in" to the life of the school. Why does this institutionalization occur?

Until recently, there has been very little research done on this question. We are faced with a mystery, with few reliable guidelines to help us unravel it. Most work on how schools change has stressed the "front end" of the process—how innovations are adopted in the first place (Rogers, 1962; Zaltman, Duncan, and Holbek, 1973). There has been a growing body of work over the past few years on issues of implementation (Fullan, 1982), but it has not been centrally focused on institutionalization. At best, researchers examined "continuation"; for instance, a new reading program might well be continued if, say, a building principal or a key teacher liked it or found it more convenient than some other practice. But what happens if the key advocate leaves? Without some sense of "built-in-ness," the fate of innovations is in doubt. The work of Berman and McLaughlin (1977) clearly suggests that federally funded programs tend not to be continued after the funds terminate. In short, as Huberman and Crandall (1983) remark:

In the chronicle of research on dissemination and use of educational practices, we first put our chips on adoption, then on implementation. It turns out that these investments are lost without deliberate attention to the institutional steps that lock an innovation

into the local setting. New practices that get built in to the training, regulatory, staffing and budgetary cycle survive; others don't. Innovations are highly perishable goods. Taking institutionalization for granted—assuming somewhat magically that it will happen by itself, or will necessarily result from a technically mastered, demonstrably effective project—is naive and usually self-defeating.

There has been some scattered work on institutionalization in the past few years. Yin and others (1978), for instance, studied institutionalization issues in public organizations. They developed a thoughtful formulation; in order to get built in or routinized, innovations must have minimum support by



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users and managers, must complete certain "passages" (for example, going from soft to hard money), and must survive certain "cycles" (new budget rounds or personnel turnover). But their studies were limited to "technological" innovations, such as closed-circuit television, and included only a few school district cases along with their studies of fire and police departments. We don't know whether their findings would apply to innovations across a wide range of schools and school districts.

Leake and others (1978) developed some very interesting training materials on institutionalization for the Teacher

Corps, treating it as a strategic process containing many specific milestones and critical events, with associated strategies, such as collaborative involvement, administrative fiat, and "ownership enlargement and transfer." The work also usefully stressed the importance of political aspects of institutionalization and attention to the actions of key gatekeepers. While the Leake materials, which were designed as part of a general training package for people faced with institutionalization issues, are plausible and probably helpful to people in schools, they lack a research base.

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opportunities to discuss changes and receive feedback and reinforcement.

Corbett, Dawson, and Firestone (1982) studied 14 schools working with a regional lab on problems of basic skills and career and citizen education, and developed a general model of what led to continuation of the innovations being attempted. They usefully focused on post-implementation events such as provision of incentives and assessment of effectiveness, but had little data on broader structural changes that might be needed in schools to ensure continued use. They noted that even the official incorporation of an innovation into the school's curriculum did not guarantee durable continuation. Similarly, Glaser's (1981) review of durability of innovations in human service organizations tended to stress staff opportunities to discuss implemented changes and receive feedback and reinforcement. The primary focus was on the user's "personal involvement"; organizational level changes were treated as a vague backdrop.

The involvement theme also appeared in Louis and others' (1981) study of the R&D Utilization Program (90 schools), though effects of pre-existing site characteristics and of the innovation itself had strong influence as well. The Louis study also found that "incorporation" of the problem-solving process used in the program was less frequent (and less predictable) than incorporation of the specific innovative products involved.

Howes (1977) proposed a general "contingency" model for predicting institutionalization, and tested it on a sample of data from eight schools and three correctional facilities. Her findings stressed the importance of support-

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"For each of the 12 sites, we drew a 'causal network' that described the course of events during implementation."

ive informal networks, full communication, coordination, and technical support. But her results were based only on a survey "snapshot" and did not look at actual institutionalization decisions and dynamics over time. Thus she concluded that a "contingency" approach was required; the demands of each innovation and school settings were likely to be different. Berman (1981) echoes this contingency approach.

In short, past research and conventional wisdom tend to suggest that a "good," well-mastered innovation that its users endorse or support will somehow just stay around. There has been overemphasis on user ownership, involvement, and technical skill; the organization-level structural and procedural changes required for institutionalization have stayed vague and mysterious. Finally, the empirical data base on how institutionalization actually works over time is quite thin.

The rest of this article describes recent research that begins to remedy these uncertainties and takes steps toward unraveling the mystery.

Studying Institutionalization

In the field study component of the Study of Dissemination Efforts Supporting School Improvement, we¹ examined improvement processes in 12 schools in rural, suburban, and urban settings in ten states. Adapting classic ethnographic methods, we collected data through nonparticipant observation, semi-structured and informal interviews, and documents during three to four intensive site visits over the 1979-80 school year. Our research questions dealt with many aspects of the school improvement process: the innovations themselves; the local context; the assistance provided; "transformations" in the innovation, the user, and the school; and the intermediate and final out-

Figure 1. Institutionalization of a Remedial Lab, Banestown Site

	School Level	District Level
Supporting Conditions:		
Is a core (vs. peripheral) application	present, temporary	promised
Operating on regular, daily basis	present, temporary	present, temporary
Provides benefits, payoffs to users	present, looks dubious	present, looks permanent
Competing practices eliminated	dubious, weak	dubious, weak
Receives support from:		
Administrators	present	present, partially soft
Users/staff	present	present
Clients	present	present
Passage Completion:		
Goes from soft to hard money	absent	absent
Job description becomes standard	dubious	dubious
Skills required are included in formal training program	absent	absent
Organizational status is established/part of regulations	absent	absent
Routines established for supply and maintenance	present, temporary	present, temporary
Cycle Survival:		
Survives annual budget cycles	absent	absent
Survives departure or introduction of new personnel	promised	promised
Skills are taught in successive cycles	present, temporary	present, temporary
Achieves widespread use throughout organization	present, temporary	present, temporary
Survives equipment turnover or loss (includes materials)	n/a	n/a

comes of the effort, including institutionalization.

The 12 sites included seven that were implementing National Diffusion Network (NDN) innovations ranging from reading and math programs to career education, environmental studies, early childhood education, and governmental/legal issues. There were also five Title IV-C sites that had developed programs in social studies, individualized education, reading, vocational education, and a complete alternative school.

We analyzed our 2,700 pages of field notes using a common format of tables, charts, and narrative text, which resulted in 12 case reports. We then wrote a lengthy cross-site analysis (Huberman and Miles, 1982) using multi-site matrices and causal networks to develop generalizations and explanations that made sense across the 12 sites while respecting the unique aspects of each.²

At field sites, we looked for organizational conditions supporting institutionalization, asking people not only whether the innovation would be around in the following and subsequent years, but why they thought so. In addition, each researcher filled out a standard checklist

chart. Figure 1 is a sample chart showing the moderate degree of institutionalization at the Banestown site. The conceptualization underlying the chart is drawn from Yin and others (1978).

The analyst also commented on and amplified the chart with accompanying text. For example, at Banestown, the analyst noted that though the remedial lab had proved to be a better solution to needs than the existing practices (Title I aides or in-class work), and thus had good support from teachers and the central office, other signs were not good. For instance, the district budget line for the lab was still drawn from soft money; supervisory responsibility for the program had shifted and might shift again; and the lab did not have a "firm institutional status." Still, the analyst was more optimistic than the chart suggests, emphasizing central office administrators' and users' strong belief in the need for the project. He noted the existence of similar labs at four other schools in the county ("cutting off the lab at the elementary school would jeopardize the institutional rationale at the middle school"), and cited the lab teacher's comment that "things keep going as

long as there aren't big waves."

Finally, the analyst pointed out that recent budget cuts had not eliminated the lab at another school, and that the two lab teachers already on the county payroll would almost surely not be fired. The text concludes:

The most likely prediction is that the labs are high on the list of projects to be supported once core classroom practices have been assured. The labs would be sacrificed before funds for teachers or core equipment or instructional materials. Beyond that, the labs are high on the list of priorities for "special programs."

We begin to see here the complexity of teasing out the factors that will let us make a confident prediction.

Naturally, other sites differed in how well institutionalized their innovations seemed to be. In Tindale, a high-institutionalization site, a locally developed reading program got researcher ratings of "present, looks permanent" on almost every aspect of our chart. The new program "replaced the old English curriculum and funds like any other program in the school." All users saw it as "built in," and "some had never known it not to be."

The ultimate measure of institutionalization at Tindale, ironically enough, appears in this sentence: "In several years, it will be revised, just as all other

curricula are revised on a regular basis."

For another example, institutionalization was essentially absent at the Burton site. The central office social studies coordinator defunded the IPLE; legal education unit as "experimental" and gave teachers a license to "pick and choose" at will from the IPLE materials. In practically all cells of the chart, the analyst gave a rating of "absent." Only one user of four was using the materials fairly regularly, and said they improved teaching. A few students said they liked the exercises, and the social studies coordinator was supportive.

But the chances for institutionalization looked slim. The community-based and other experiential activities of the program had a very poor fit with users' typical practices. Whether the IPLE materials would ever be institutionalized depended on curriculum review committees. One user noted, "If the revision work is done by an IPLE supporter or two, then IPLE would get built in. If it's not done by a supporter, IPLE would be used less, much less. Teachers are free to use as much of a revised curriculum as they want or need." And another user, as we saw at the start of this article, noted lack of rewards and teacher resistance.

All in all, there was plenty of varia-

tion across our 12 sites. Three had high institutionalization, three had high to moderate, one had moderate, three had low, and two could only get a rating of "nil." This range enabled us to look carefully at predictive factors.

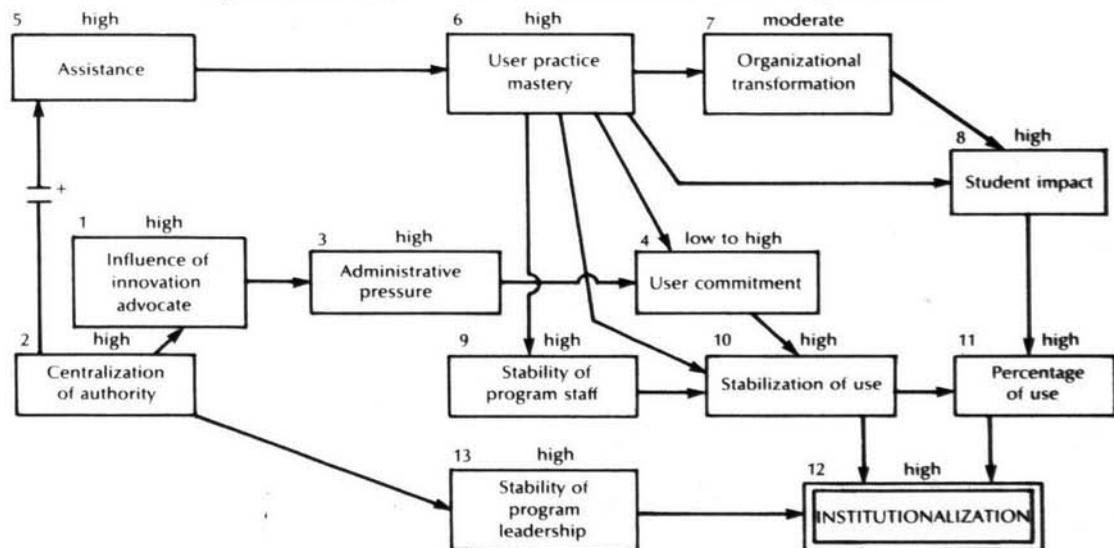
Explaining Institutionalization

For each of the 12 sites, we drew a "causal network" that described the course of events during implementation leading to high, moderate, or low outcomes, including institutionalization. (We fed these networks back to people at the sites, who confirmed their essential validity, as well as refining them further.) We found that we were able to sort the 12 sites into four different "families," according to their approach to institutionalization issues; two families were high and two low.

In our first scenario, we found one family of four sites that solved institutionalization issues through *mandated, stable use*—that is, requiring the use of the innovation, and maintaining much stability in personnel and their use of the innovation. Figure 2 represents Tindale's story.

Here, a powerful central office administrator (1), the director of curriculum and special projects, working from a centralized power base (2), put consid-

Figure 2. Mandated, Stable Use as a Route to Institutionalization, Tindale Site



+ Influence of other variables not discussed.

erable pressure on users (3) to implement the new, locally developed reading program. Initially, this lowered users' commitment (4); they resented and feared the pressure. But substantial assistance (5) was supplied, which increased users' practice mastery (6) a good deal and subsequently their commitment (4). In addition, organizational rearrangements (7), including scheduling, pupil rotation, and teacher teaming were made, increasing student impact (8). User mastery and commitment, along with stability of program staff (9), led to stabilized use (10), which both increased percentage of use (11) and led to institutionalization (12). Stability of program leadership (13) also aided institutionalization. The general picture is one of administrative decisiveness, accompanied by enough assistance to increase user skill, ownership, and stable use in the context of a stable system.

A second institutionalization scenario, which got moderate to high outcomes, was *skillful, committed use*. This family of three sites did not mandate the innovation, but spent much energy on assisting users and developing their commitment.

A third, less effective scenario, appearing in two sites, we called *vulnerability*; when funding crises struck or key advocates left the district, the innovation had no protection. Even though users were reasonably skilled and com-

mitted, there was little guarantee or durability.

Finally, we saw an essentially noninstitutionalizing scenario in three sites, which we labeled *indifference*. Administrators, in particular, showed by their behavior that they did not care. They did almost nothing to assist users in any way.

A General Model

Looking at these four scenarios, we extracted a list of 20 key variables that seemed to be involved, examining them in a sites-by-variables, predictor-outcome matrix to see how each contributed to high or low results. Then we assembled the most crucial into a general model, which appears in Figure 3. Our empirical study of the 12 sites showed us, in brief, that institutionalization must be approached by providing supports and by warding off threats.

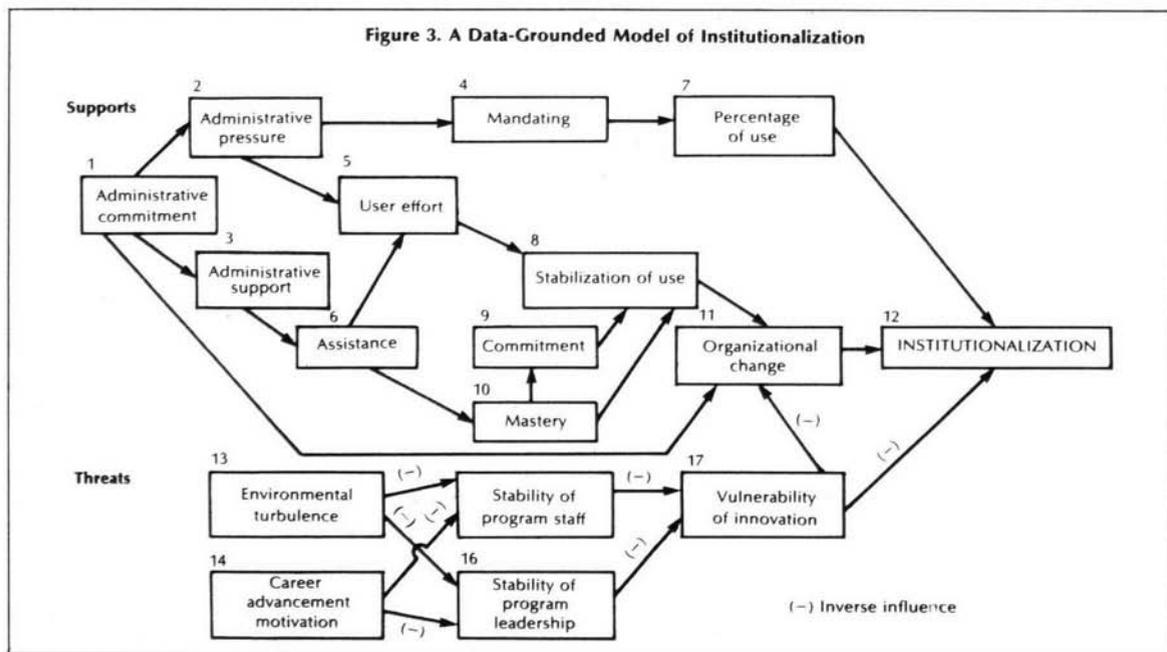
The story begins in the upper left corner with *administrative commitment* (1). That's a necessary but, as we shall see, insufficient condition for high institutionalization. Our analysis of the scenarios suggests clearly that high administrative commitment tends to lead to both *administrative pressure* (2) on users to implement the innovation, along with *administrative support* (3), which often shows up in the form of *assistance* (6) to users. Both the pressure and the assistance tend to lead to increased *user*

effort (5). We repeatedly found that the harder people worked at an innovation, the more *committed* (9) they grew; that commitment was also fueled by increasing technical *mastery* of the innovation (10).

Commitment and mastery both lead toward increasing *stabilization of use* (8); the innovation has "settled down" in the system. That stabilization is also aided if administrators decide to *mandate* (4) the innovation, which also naturally increases the *percentage of use* (7) to something approaching 100 percent of eligible users; that in itself decisively encourages *institutionalization* (12). But here is one more critical factor. Where administrators were *committed* (1), they also took direct action to bring about *organizational change* (11)—changes beyond those the stabilized innovation had already brought. In particular, they worked at the "passages" and "cycles" shown in our charts by altering the structure and approach of inservice training, writing the innovation's requirements into job descriptions, making new budget lines, appointing permanent coordinators for the innovation, and making sure that needed materials and equipment would continue to be available in succeeding years.

All these supports for institutionalization made empirical sense in our sites. But the lesson of our *low-institutionalizing* sites is that positive supports are not

Figure 3. A Data-Grouped Model of Institutionalization



enough. It's necessary to ward off threats to the durability of the innovation. In our sites, these threats arose from two sources. First, there was *environmental turbulence* (13), usually in the form of funding cuts or losses, but sometimes in the form of shifting or shrinking student populations. Second, we saw *career advancement motivation* (14), the genuine desire of professionals to move on to new challenges. Both served as threats to institutionalization, because they destabilized both *program staff* (15) and *leadership* (16). As one superintendent mused when a key principal took a job in another district to promote the very innovation he had advocated and supported locally, "It's a temporary setback, but we'll just keep going. It's a good deal for Bill. It helps him in his growth to be moving on. A loss? Of course it's a loss." And the innovation's coordinator, who herself was also moving to a new job, said of the superintendent, "You have to appreciate the energy he's put into it. It must be tough to have to be doing it all over again."

So job mobility—whether driven by advancement motivation or by funding cuts, is a threat to institutionalization. The innovation must be buffered, protected against these threats, or it will become highly *vulnerable* (17). Once again, as our model shows, *organizational change* (11) is critical. If structural and procedural changes have occurred, vulnerability is reduced. For example, in the site we just drew quotes from, the decision to create a districtwide management group for the innovation, involving both teachers and administrators, nurtured stability even though the principal and the coordinator were both leaving. An external consultant noted, "The program has a broad foundation in the management team and has good feedback from parents. They won't go back to what they were doing before." And a teacher who was an early program advocate said, "If the program were being pushed by one person, when that person left, it would be dead. But if seven or eight people are making decisions, the likelihood of surviving personnel changes is great."

The general message of our model is that the enthusiasm, skill, and effectiveness of the innovation are insufficient conditions for institutionalization. Rather, what seems required is strong attention of administrators to stabilizing and supporting the innovation, extending its use to a large group, and making provisions to protect the innovation

against the threats of personnel turnover that are endemic in schools. Making clearcut changes in organizational structure, rules, and procedures seems essential both to stabilize the innovation and to buffer against turnover.

Epilogue

When we completed this model, we applied it to each of our 12 sites, based on all the data available, and made a specific prediction about the degree of institutionalization that would be present *one year later*. After waiting a year, we fed the predictions, together with our explanations, back to each site, and asked what had happened. In seven sites, the prediction was highly confirmed; in three it was moderate to high; and in only two sites was the prediction only moderately confirmed. There were *no reversals* or downright failures of prediction.

This finding reassures us that the model represents a good understanding of institutionalization dynamics in these 12 sites; we unraveled the mystery to our own satisfaction. Will the model apply to other sites as well? That remains to be seen, but we are optimistic and encourage much wider testing of the model in other schools as they cope with the demands of institutionalization.

Another crucial element remained latent in our model. It was clear in our sites that administrators and teachers lived in separate worlds. Administrators push, demand, support, and think about the organization; teachers react, get involved, struggle with the demands of the innovation, and think about their lives with students. It was very clear that an underlying variable we called *teacher-administrator harmony* was critical for success. Working relations between administrators and teachers had to be clear and supportive enough that the pressures and stresses of incorporating something new could be managed together. Thus, *both* teacher mastery/commitment *and* administrative action are critical for institutionalization and linkage between them *can* be achieved. □

¹Michael Huberman and myself, with Beverly Loy Taylor and Jo Ann Goldberg.

²The case reports are available at cost from The NETWORK, Inc., 290 S. Main St., Andover, MA 01810. The matrix and network methods were newly developed by us, and appear along with many other qualitative data analysis techniques in Miles and Huberman (1983, 1984).

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