Model Demonstration Coordination Center

The Model Demonstration Coordination Center: Reflections on the First Four Years

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In funding model demonstration projects, OSEP had a larger purpose than supporting the development, implementation, and evaluation of individual models. OSEP wanted to consider "broad questions of interest about model demonstration such as, 'Are there common components of successful models,' or 'What project features promote scaling up of a practice/program.'"[1] The Model Demonstration Coordination Center (MDCC) is the mechanism through which OSEP sought to consider these kinds of questions. Launched in 2005, the MDCC supports OSEP's model demonstration work by (1) coordinating the evaluations of each cohort[2] of model demonstration projects (MDPs) and synthesizing and analyzing their findings to maximize the strength of evidence produced, and (2) identifying characteristics of an effective implementation/evaluation/refinement process that moves a practice from early testing to being ready for sustainability and wider adoption.

To achieve these ends, the MDCC does the following:

- Works with the MDPs to establish consistent design elements across projects, including the target population, evaluation questions, and data collection methods and instrumentation to document student- and system-level outcomes.

- Negotiates agreements with the MDPs to document key features of their models, characteristics of the student sample, the organizational contexts for implementation and changes in these contexts over time, their implementation experiences, and model revisions made as a result of these experiences.

- Supports cross-MDP documentation by suggesting common organizational and child assessment items and surveys, qualitative profile tools, and qualitative templates to describe the model specifications and the "story" of model development and implementation.

- Maintains a web-based data system to track, enter, and process data efficiently across MDPs; minimize burden on grantees; and make data accessible in real time for analyses and reporting.

- Facilitates collaborative partnerships among the MDPs to create opportunities for learning and sharing ideas. Regular communication avoids reinvention and promotes trust. MDPs can build on the ideas and tools of their colleagues to further their own work.

- Uses a conceptual framework to study the model demonstration process, guide the MDCC's work, and to customize the framework for each new cohort.
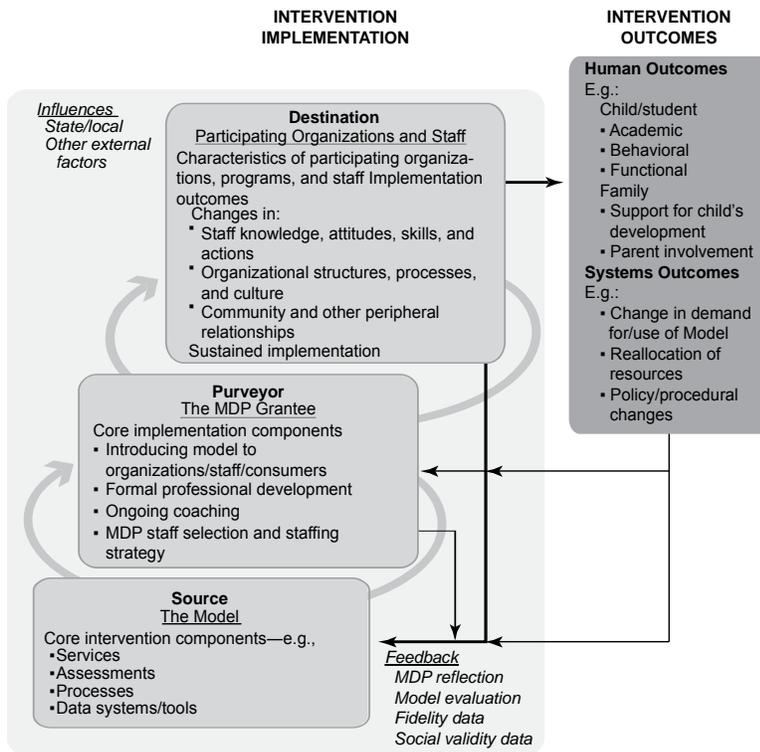
The MDCC's Conceptual Framework

The MDCC's conceptual framework for understanding the model demonstration process (Figure 1), is an adaptation of one developed by the National Implementation Research Network (NIRN).[3] The framework has several major elements. The **source** is the model being implemented

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[1] U.S. Department of Education. (2005). *Model Demonstration Data Coordination Center Scope of Work*. Washington, DC: Office of Special Education Programs.

[2] A cohort refers to the set of grantees, funded in a particular year, that are addressing the same practice area. The four cohorts funded thus far have addressed progress monitoring in elementary reading (2006–2009), tertiary behavior interventions (2007–2010), early childhood language development (2008–2011), and a tiered approach to improving secondary school writing (2010–2013).

[3] Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida.

Conceptual Framework for Model Demonstration Implementation and Outcomes*

INTERVENTION IMPLEMENTATION

INTERVENTION OUTCOMES

Influences
State/local
Other external
factors

Destination
Participating Organizations and Staff
Characteristics of participating organiza-
tions, programs, and staff Implementation
outcomes
  Changes in:
  - Staff knowledge, attitudes, skills, and
    actions
  - Organizational structures, processes,
    and culture
  - Community and other peripheral
    relationships
  Sustained implementation

Purveyor
The MDP Grantee
Core implementation components
  - Introducing model to
    organizations/staff/consumers
  - Formal professional development
  - Ongoing coaching
  - MDP staff selection and staffing
    strategy

Source
The Model
Core intervention components—e.g.,
  - Services
  - Assessments
  - Processes
  - Data systems/tools

Human Outcomes
E.g.:
  Child/student
  - Academic
  - Behavioral
  - Functional
  Family
  - Support for child's
    development
  - Parent involvement
Systems Outcomes
E.g.:
  - Change in demand
    for/use of Model
  - Reallocation of
    resources
  - Policy/procedural
    changes

Feedback
MDP reflection
Model evaluation
Fidelity data
Social validity data

*Adapted from *Implementation Research: A Synthesis of the Literature* (Fixsen et al., 2005).

which is comprised of core intervention components (i.e., the mechanisms through which the intervention is expected to produce desired outcomes). The model **purveyor** is the MDP grantee that is implementing a model in schools or other organizations. Whereas the model itself has core *intervention* components, the MDPs have core *implementation* components—the key strategies through which models are transmitted to implementing organizations (the **destination**) and the staff in them. A fourth element involves the model development context, or the **influences** on the implementation process.

Four **implementation outcomes** are expected to occur within the destination organization, if implementation is successful: (1) changes in the knowledge and skills of practitioners, key staff members, and other participating adults; (2) changes in organizational structures and cultures needed to support the changes in adult professional behavior; (3) changes in external relationships (e.g., with consumers, stakeholders, and systems partners), and (4) sustainability of the model after the MDP ends.

The MDCC added to the NIRN conceptual framework an element related to **intervention outcomes**, which can occur at both the individual level (e.g., improved reading performance or student behavior) and the systems level (e.g., increased use of progress monitoring data in setting and monitoring IEP goals). Finally, the conceptual framework includes feedback loops, the **learning paths** through which experience with model implementation and outcomes informs iterative adaptations in core intervention and implementation components.

In looking analytically across the implementation experiences and outcomes of models within each cohort and across cohorts, the MDCC is distilling important lessons regarding the model demonstration process and each component of the conceptual framework. Although significant amounts of data have yet to be considered, examples of lessons learned to date are provided below.

Examples of Lessons Learned About the Model Demonstration Process

Model characteristics (the source). Naturally, models differ across cohorts targeting a wide range of issues in educational practice, and MDPS also differ from one another within a cohort. However, some common threads have emerged:

- **Producing child-level data and using it to guide intervention.** All models are designed to change adult practice (e.g., reading or writing instruction) as a vehicle for improving child outcomes. An important mechanism for generating adult change is regularly providing practitioners with data about child performance. In their proposals

and early professional development efforts, MDPs seem clearer about how the data are to be produced (e.g., a curriculum-based measurement approach) and the kinds of changes in services that are to result (e.g., tier 2 interventions) than they are about the **process** through which the data are to be used in decisionmaking (e.g., the content, frequency, and leadership of grade-level teacher meetings to consider CBM data and to place students in skill-based reading groups). MDPs need to be able to articulate this process at the outset and to devote professional development resources to it, alongside training in measurement models and interventions.

- **Using technology.** All models incorporate electronic tools in some form (e.g., web-based progress-monitoring graphing programs), and typically plan to use or apply them in a similar way across their implementation contexts (e.g., in all schools, with all teachers or parents). MDPs are learning, though, that they may need to customize both their selection of technologies and how they are used because they are more accessible in some contexts (e.g., in urban vs. rural communities) and for some purposes (e.g., a data system for tracking student disciplinary infractions vs. DVDs showing parents how to implement a language development strategy with young children) than others. Additionally, MDPs often contribute the technology tools or cover their costs for participating organizations as part of their project. However, heavy reliance on costly or proprietary technologies can be a limiting factor in expansion of a model beyond the original implementation sites.

Core implementation components (strategies of the purveyor or MDP). MDPs know or discover that implementation is enhanced when they think about sustainability from the start. Doing so has implications for several core implementation components.

- **Introducing the model and obtaining buy-in.** Selecting appropriate partner organizations is a critical first step in model implementation. MDPs need to vet carefully the organizations they recruit for the compatibility of the organizational culture with the theoretical foundations and core components of their model. Incompatibility of the organization and model (e.g., a direct instruction approach to reading being implemented in a school that embraces a whole-language approach) can present potentially insurmountable obstacles to implementation, and virtually assures a model will not be sustained after the MDP exits the organization. Timing the RFA for new MDP grantees so that districts and schools are in operation and available to negotiate fully informed participation agreements could help MDPs engage appropriate organizational partners.

- **Building in time for learning and sharing insights.** The MDCC asked cohort 1 grantees to delay implementation of their models in at least one school until the second year to develop a solid baseline on key outcomes against which to measure intervention effects. Although the request was aimed at strengthening the models' evaluations, MDPs reported that it led to stronger implementation in the second-year schools and was "the best idea" the MDCC had offered the MDPs. Staggered implementation allowed the MDPs to work through the challenges of implementation in their first-year schools and identify training and support needs that could be filled from the start in their second-year schools. Further, as first-year schools began to see student learning gains related to the intervention, they communicated their enthusiasm to colleagues in second-year schools, creating a more receptive environment there than MDPs had found in their first-year schools. MDPs can benefit from creating opportunities for cross-site communication once implementation gets underway. Although this approach is not feasible in all cases (e.g., cohort 3 could not implement a lagged design because their approach is longitudinal), OSEP capitalized on the cohort 1 experience by building into the cohort 4 priority a requirement for "staggered implementation" to create this time for learning.

- **Adult/professional development.** Because all models aim to change adult behavior, they all incorporate an adult/professional[4] education program that typically involves formal training sessions, supplemented by ongoing coaching, reinforcement, and support. MDPs typically provide this training and coaching and may facilitate group processes (e.g., grade-level meetings to consider progress monitoring data) during early implementation. However, thinking about sustainability from the start suggests that an MDP should have a well-thought-out plan and timeline for developing the capacity within the implementing organization to continue the needed training, facilitation, and support after the project ends. A sustainability focus also encourages an MDP to acknowledge that capacity is not static; the potential for turnover in all staff positions means there always will be some need for training. Developing easily accessible training materials (e.g., web-based training modules, DVDs that demonstrate model practices) can reduce the labor demands of continuous training during and support sustainability.

- **Model staffing requirements.** MDPs use a variety of staff in several roles to install their models in destination organizations. Keeping an eye on sustainability means selecting a staffing strategy that does not place untenable demands on the organizations to fill and maintain staff positions after the MDP leaves. For example, including a half-time site coordinator in each school as a key implementation component means the schools (or districts) will need to fill that position if they are to continue the model, posing a potentially serious obstacle to sustainability and to extending the model to other schools.

Implementing organizations (model destinations). The destination organizations for cohorts 1 and 4 are schools; for cohort 2, they are districts; and for cohort 3, they are early intervention programs. Despite these differences, there are commonalities among them regarding the implementation process.

- **Leadership is critical.** The MDPs consistently assert that their ability to create change in adult behavior within destination organizations requires strong commitment and consistent support from their leaders—principals, district superintendents, and program directors. The fact that turnover at the leadership level can seriously jeopardize a model's future in an organization suggests that MDPs should develop a "deep bench" of key destination staff who understand and actively support the project (e.g., a district's directors of curriculum and instruction and of special education, in addition to the superintendent; lead agency directors and practitioners across a wide range of disciplines in early intervention) to increase the chances of weathering leadership changes.

- **Competing initiatives are challenging.** With increased demands that schools be accountable for the academic performance of all students, many schools are undertaking multiple efforts to achieve performance improvements. Creating and maintaining a consistent focus on a particular model program can be difficult in this environment. Articulating to school leaders and staff how the model aligns with and supports an overall school improvement strategy may help counterbalance a tendency for the focus of a school to shift to new initiatives.

Contextual influences. Multiple factors come into play when model implementation occurs in "real" environments, factors that are not always anticipated at the outset of a project.

- **Contextual influences often are rooted in events outside the MDPs' control.** Some influences on the implementation process stem from the destination organizations themselves (e.g., firing or redistributing staff), whereas other contextual influences are external to the destination organization (e.g., restrictions and obligations enforced by

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[4] We refer to "adult/professional development" because some cohort 3 model programs involve training parents as well as practitioners to implement strategies that enhance children's language development.

unions, competing state priorities, an economic crisis). MDPs must exhibit a level of flexibility, creativity, and resourcefulness to respond effectively to such factors.

- **The need for specialized services creates the need to develop partnerships with outside sources.** This issue is most apparent in cohort 2 models, which incorporate behavior specialists and community-based mental health services to augment tertiary behavior support in schools. The effort often requires an understanding of the variations inherent in organizations' cultures and embedded "ways of doing business."

Intervention outcomes. Although the MDPs bear the responsibility of data collection for evaluation purposes, practitioners in destination organizations also produce and use data for a variety of purposes, generating the following observations:

- **Data collection burdens and benefits.** Collecting data on child outcomes and other aspects of the evaluation of a model is initially "a burden without the benefit." It takes time for an intervention's effects to be demonstrated with performance data, even when the instruments being used are sensitive to change. It is imperative that MDPs consider both the nature of the data and the timing of its collection to ensure that data are available to demonstrate change as early in the first year as is feasible. Cohort 1 MDPs reported that data demonstrating initial positive outcomes in the schools implementing in year 1 garnered support and enthusiasm for the model in later-implementing schools. The projects also reported that concrete data suggesting improved reading fluency enhanced the model's social validity, which together formed a powerful lever for generating sustained implementation in the schools.

- **Strength of the evidence base and implications for scaling up.** Although the priorities for the model demonstration projects require successful applicants to evaluate the "effectiveness" of their models, the MDPs are not funded at a level that permits a true effectiveness study. Rather, the MDPs demonstrate that evidence-based model components can be transferred to and applied in real-world environments. Despite this reality, an expectation of "scaling up" the models is implied in OSEP's interest in the MDPs "packaging" the models so they can be implemented in other than the original demonstration sites. It appears necessary to better align expectations for "scaling up" with each project's ability, given grant resources, for demonstrating model efficacy.

Learning paths. The MDPs received input and feedback on their models in many ways and used the information to revise both intervention and implementation components over time.

- **Fidelity and social validity data** were collected via practitioner surveys, observations, and focus groups and encouraged the MDPs to strengthen professional development and to adapt procedures to staff and organizational preferences and needs.

- **Outcome data** have pinpointed the need for more intensive or redirected intervention efforts.

- **Self-reflection generated important implementation insights.** Several MDPs held regular staff debriefings of their implementation successes and challenges through which they developed new understandings of the model demonstration process. Regular MDCC-facilitated conference calls also encouraged on-going self-reflection and were reported by MDPs to enhance the quality of their work.

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