

Scaling Up Early Childhood Intervention Literacy Learning Practices

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ABSTRACT

Key considerations for scaling up the use of early literacy learning practices with infants, toddlers, and preschoolers with developmental disabilities and delays by early childhood intervention programs and practitioners are described. The paper includes a definition of scaling-up, a description of the levels and attributes of the proposed scaling-up approach, and the particular elements of scaling-up that will be used to promote the adoption and sustained use of evidence-based early literacy learning practices.

Scaling-up or going-to-scale refers to those processes and procedures used to institutionalize evidence-based practices broadly throughout a program or organization (Elmore, 1996) or broadly throughout a geographic or designated catchment area (Menter, Kaaria, Johnson, & Ashby, 2004). Scaling-up is generally recognized as a multifaceted and multilayered activity that requires considerable resources to both promote and sustain the use of effective practices and interventions (e.g., Elias, Zins, Graczyk, & Weissberg, 2003; Foorman & Moats, 2004; Klinger, 2004).

The foundation of scaling up any practice, program, or product is ensuring that the innovation and its consequences are valued by the intended end users (practitioners, parents, and other caregivers).¹ Adoption, use, and the sustainability of an innovation is more likely to occur when a practice is functionally linked to socially and educationally important and desired outcomes (Sugai & Horner, 2006). No practice or intervention, no matter how

effective, is likely to be used if it is not viewed as worthy of adoption and is not judged effective for promoting desired and valued outcomes. Any scaling-up process therefore needs to include an initial and ongoing assessment of the people who will promote adoption of the practices, the end users of the practices, and those who are the beneficiaries of the practices, to identify those aspects of the innovation that contribute to initial and continued “buy in” (Racine, 1998). The process for doing this is typically accomplished by some type of needs assessment, environmental scan, or other type of marketing analysis (Coffman, 2002; Hatch & Pearson, 2005).

Menter et al. (2004) described six elements of effective scaling up: (1) incorporating scaling-up considerations into program planning, (2) building and strengthening

¹The term end user refers to either or both practitioners or parents (and other caregivers) who use CELL practices to promote and enhance the early literacy learning of young children with identified disabilities or developmental delays or children at risk for poor outcomes due to biological or environmental risk factors or both.

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the capacity of implementers (end users) to adopt and use targeted practices, (3) ongoing monitoring and evaluating of stakeholders' perspectives and understanding of the targeted practices, (4) building linkages, partnerships, and strategic alliances with stakeholders both vertically and horizontally, (5) affecting policy decisions and changes that create the kind of institutional infrastructures for the targeted practices to be scaled up, and (6) leveraging the allocation or reallocation of the resources necessary to produce and sustain change. Similar principles for scaling-up have been proposed for promoting adoption and use of both educational innovations (e.g., Baker, in press) and other types of practices (e.g., Smith & Colvin, 2000).

The purpose of this paper is to describe the proposed scaling-up process that will be used to promote the adoption and sustained use of evidence-based literacy learning practices by early childhood intervention programs serving young children, birth-to-5 years of age, with identified disabilities or developmental delays or children at risk for disabilities or delays. Promoting the widespread use of the targeted practices is a major activity of the Center for Early Literacy Learning (CELL). CELL is a newly established early childhood technical-assistance center funded by the U.S. Department of Education, Office of Special Education Programs (OSEP). The major aims of CELL are: (1) synthesize available evidence on effective early literacy learning interventions, (2) identify and develop evidence-based practices from this research, (3) implement and evaluate the use of these evidence-based practices, and (4) conduct both general and specialized technical assistance promoting the adoption and sustained use of evidence-based early literacy learning practices. CELL is part of OSEP's ongoing investment in scaling up the use of evidence-based practices (e.g., DeStefano, Dailey, Berman, & McInerney, 2001).

The CELL scaling-up model draws heavily from the work of Sugai, Horner, and colleagues based on their successful scaling up of positive behavioral support interventions with school-age children (e.g., Barrett, Boezio, Horner, & Sugai, 2006; Horner, Sugai, Todd, & Lewis-Palmer, 2000; Sprague & Horner, 2006; Sugai & Horner, 2006). The model also includes key features and elements of other successful scaling-up initiatives (e.g., Simmons & Shiffman, 2006). The proposed model differs in some respects from other going-to-scale initiatives by taking into consideration those ecological and contextual factors that are unique to birth-to-5 early childhood intervention programs, including, but not limited to, between and within state variations in the programs and organizations having responsibility for providing technical assistance and delivering early childhood intervention services (see e.g., Danaher, Shackelford, & Harbin, 2004; Hebbeler, Spiker, Wagner, Cameto, & McKenna, 1999; Kochanek, 2001; Robinson & Rosenberg, 2004; Spiker, Hebbeler, Wagner, Cameto, & McKenna, 2000).

DEFINITION OF SCALING-UP

Most definitions of scaling-up include both a statement of impact (scale) and descriptions of the strategies to influence or change prevailing practices (scaling-up). The CORE Group (2005), for example, defined *scale* as the widespread achievement of impact where increased impact is a "function of the *coverage* of a population, program *effectiveness* (quality of implementation and efficacy of interventions employed), *efficiency* (cost per beneficiary), *sustainability* (continuity, ownership), and *equity* (reaching the hardest to reach)" (p. 2) and *scaling-up* as "efforts to bring more quality benefits to more people over a wider geographical area more quickly, more equitably, and more lastingly" (p. 3). Horner and Sugai (2006a) defined scaling-up as "the implementation of practices, policies, and organizational management that enable sustained use of evidence-based practices by new educational communities at levels that are educationally and socially important" (n.p.). Operational definitions like the CORE (2005) and Horner and Sugai (2006a) definitions are important because they make explicit the characteristics of a process or procedure used to effect change (Babbie, 2001).

The above definitions as well as others (Simmons & Shiffman, 2006) were used to develop the CELL definition of scaling-up as:

The adoption of policies, practices, and implementation strategies that promote widespread, sustained use of evidence-based early literacy learning practices by early childhood intervention programs serving young children, birth-to-6 years of age, and their families, to achieve outcomes that are socially and developmentally important and valued.

The CELL definition implicitly acknowledges that scaling up the use of a practice includes both the technical and social components of a *process of change* (Fullan, 2001). CELL scaling-up activities will involve the provision of high quality technical assistance (information and support) about both evidence-based early literacy learning practices and the consequences of these practices. Additionally, these activities will be concerned with the highly complex and subtle social elements involved in supporting practitioners in order to change their attitudes, beliefs, and current practices. According to Fullan (2001), "effective approaches to managing change call for combining and balancing factors that do not apparently go together—(such as) fidelity and adaptivity. More than anything else, effective strategies require an understanding of the process (of change), a way of thinking that cannot be captured in any list of steps to be followed" (p. 71). Therefore, the CELL scaling-up process will be designed to build the capacity of state and regional technical-assistance and professional-development networks and local early childhood intervention programs to develop new practices, to refine existing policies, to adapt

and extend their practices, and to employ and coordinate new implementation strategies that support the widespread adoption and use of early literacy learning practices having desired and valued outcomes.

Breadth and Depth of Scaling-up

Successful scaling up typically involves both horizontal and vertical scaling-up activities (CORE, 2005; Menter et al., 2004). Vertical scaling-up, or the *depth* of going-to-scale, refers to changes that are effected at all levels of a system (e.g., state level, local school district, early intervention programs, and end users) both top-to-bottom and bottom-to-top that involve as many key players (stakeholders) as possible contributing to the adoption and sustained use of targeted practices. Horizontal scaling-up, or the *breadth* of going-to-scale, refers to the spread in the use of targeted practices by end users that is typically accomplished by replications of replications, which have the effect of recreating repeatedly the adoption and sustained use of targeted practices (Simmons & Shiffman, 2006). As noted by Menter et al. (2004), “As one goes higher up the institutional levels (scaling up), the greater the chances for horizontal spread; likewise, as one spreads further [among end users] (scaling out), the greater are the chances of influencing those at the higher levels” (p. 15).

The vertical scaling up of CELL evidence-based practices will occur at multiple levels depending on the results of social marketing analyses (Kotler & Roberto, 1989). The levels are federal and state policy makers and leaders, technical-assistance and professional-development providers and networks, and end users. The involvement of individuals at any one level will have different purposes and functions and associated activities that will contribute to the scaling up of early literacy learning evidence-based practices. Table 1 includes a tentative list of scaling-up functions and purposes and the types of activities that will be implemented to achieve desired outcomes. The table is modeled after one proposed by Horner and Sugai (2006a) and will be used as a framework for deciding at which levels and what types of

involvement CELL will focus scaling-up activities.

Social marketing will be used to promote the understanding of the importance and benefits of the early literacy learning of infants, toddlers, and preschoolers with disabilities or delays. This will be accomplished by the CELL partners (Orelena Hawks Puckett Institute, American Institutes for Research, PACER Center, University of Connecticut Pappanikou Center) in collaboration with federal and state government representations; national, state, and regional technical-assistance providers and professional-development programs; early childhood intervention programs and practitioners; and national, state, and local parent programs and organizations.²

The primary means to scaling up targeted practices will be state, regional, and local resource teams. The resource teams will include stakeholders and key players at different levels throughout a state (see below). Specialized technical assistance will be provided to the resource teams to build their capacity, who, in turn, will *build the capacity* of end users to adopt and use CELL early literacy learning practices. Scaling-up will occur through replications of replications to produce spread (scaling-out) in ways that the practices and their consequences (outcomes) are “recreated repeatedly” in an iterative manner (Horner & Sugai, 2006a).

Capacity building will be directed toward organizational policies, practices, and implementation strategies consistent with the CELL definition of scaling-up. Our capacity-building efforts will be guided by previous research on successful national scaling-up projects, including, but not limited to, the *Rand Change Agent Study* (e.g., McLaughlin, 1990), *National Dissemination Network* (e.g., Harris, Eiseman, Harris, Doyle, & Crandall, 1979), and *National Research and Development Utilization Program*

²In addition to implementing the social marketing activities, the CELL partners will provide general technical assistance to technical-assistance providers, practitioners, and parents to promote the understanding and use of early literacy practices.

Table 1
Functions and Purposes of Scaling-up Activities at Different Levels of Going-to-Scale

Scaling-up Functions	Levels of Scaling-up			
	Federal	State	TA Providers	End Users
<i>Social Marketing</i>	X	X	X	X
<i>Policy and Incentives</i>	X	X		
<i>Research to Practice</i>				
Resource Teams		X	X	X
Capacity Building		X	X	X
Replications			X	X
Dissemination	X	X	X	X
<i>Research and Evaluation</i>	X	X	X	X

(e.g., Louis, Rosenblum, & Molitor, 1981). Resource teams will be populated with key stakeholders (state, regional, and local early childhood staff and family members) whose support is critical to promoting the adoption and sustained use of the CELL practices. We will also support the resource teams in developing a sound rationale for why and how end users should use CELL early literacy learning practices. We will assist the resource teams in developing effective problem-solving strategies to remove (or mitigate) policy or practice barriers to CELL practice adoption at both the state and local levels. Finally, we will help the resource teams develop and use implementation strategies that empower end users to value and use CELL practices for improving children's early literacy learning.

Dissemination of literacy learning information in general and CELL materials, practices, and products more specifically, will occur using existing dissemination channels and mechanisms as well as through a CELL Web site. This will include, but not be limited to, Web site links; professional and parent newsletter announcements; NEC-TAC; regional resource centers; state and regional early childhood technical-assistance and professional-development programs; and national, state, and local parent organizations.

Different types of research and evaluation studies will be conducted to assess the effectiveness of the evidence-based literacy learning practices, the effectiveness of technical assistance for promoting adoption and use of the targeted practices, the treatment fidelity of end-user use of the practices, and changes in children's literacy learning associated with CELL practices. Impact will be measured at different levels of scaling-up and include basic, applied, and implementation studies (Duflo, 2004).

The proposed going-to-scale approach is described by Simmons and Shiffman (2006) as *guided scaling-up* and includes: (1) political, policy, or legal incentives (horizontal scaling-up), (2) replication and expansion of targeted practices broadly throughout a system (horizontal scaling-up), and (3) the grafting of targeted practices onto existing interventions to make them more effective. As previously noted, it is generally acknowledged that scaling-up practices that attend to both the *breadth* and *depth* of system change in ways that fit with existing ecological nuances are most likely to be successful (Baker, in press; Menter et al., 2004; Simmons & Shiffman, 2006).

ATTRIBUTES OF SUCCESSFUL SCALING-UP

According to Simmons and Shiffman (2006), four attributes contribute to the successful scaling up of a targeted practice. This includes the attributes of the: (1) practice itself, (2) persons conducting the scaling-up (technical-assistance personnel), (3) end users, and (4) scaling-up strategy. Table 2 lists the attributes and characteristics identified by

Simmons and Shiffman from both the published literature and lessons learned from successful scaling-up initiatives. These attributes will be the basis for further development of the CELL scaling-up approach. The attributes will be used to ensure that attention is paid to those scaling-up elements and considerations necessary to increase the likelihood of success.

Targeted Practices

The practices constituting the focus of scaling-up will be based on findings from practice-based research syntheses (Dunst, in press; Dunst, Trivette, & Cutspec, 2002) of preliteracy, emergent literacy, and early literacy research studies (Dunst, Trivette, & Masiello, 2006). Practice-based research syntheses include examination of the characteristics and consequences of experiences and opportunities afforded young children with a focus on those characteristics that are associated with variations in behavioral consequences. The characteristics that are found to be associated with positive benefits are used to develop practices that mirror the research evidence (Dunst, in press) and that are easy to use and result in immediate, observable benefits (Dunst, Pace, & Hamby, 2006; Dunst & Raab, 2005; Trivette & Dunst, 2005).

The evidence-based practices constituting the focus of CELL will include those intervention and instructional practices that promote and enhance the early nonverbal communication skills, language learning, and early literacy development of infants, toddlers, and preschoolers that are related to literacy competence (alphabet and print awareness, written language, text comprehension, phonological awareness, oral language use, and listening comprehension). The particular practices and associated outcomes that will be the focus of research syntheses are described in a companion paper (Dunst, Trivette et al., 2006).

CELL practice guides will be developed using a simple, but effective, four-step formula. Early literacy learning practices will be developed by answering the following questions: (1) What is the practice? (2) What does the practice look like? (3) How do you do the practice? and (4) How do you know the practice worked? Because practices need to be compatible with end-user values, beliefs, and existing practices (Simmons & Shiffman, 2006), the same practices will be formatted in different ways to accommodate the differences in the preferences of practitioners and parents. According to Horner and Sugai (2006a), if an evidence-based practice is to be "implemented with both fidelity and effect it often will need to be adapted by [programs and practitioners] so the practice 'fits' the values, skills, policies, structure, and [program] in which the practice is used" (n.p.).

Technical Experts

Multi-level resource teams made up of key personnel with the authority, knowledge, credibility, and technical ex-

Table 2

Four Sets of Attributes for Successfully Scaling Up Targeted Practices (Simmons & Shiffman, 2006)

Targeted Practice (Innovation)	Technical Experts (Resource Teams)	End-User Programs and Organizations	Scaling-up Strategies
<p>Based on sound evidence or espoused by respected persons or institutions in order to be credible</p> <p>Observable to ensure that potential users can see the results</p> <p>Relevant for addressing persistent or sharply felt problems</p> <p>Have a relative advantage over existing practices</p> <p>Easy to use and understand</p> <p>Compatible with the potential users' established values, norms, and facilities</p> <p>Testable without committing the potential user to complete adoption</p>	<p>Effective and motivated leaders who command authority and have credibility with the user organization</p> <p>A unifying vision</p> <p>An appreciation of the user organization's capacities and limitations</p> <p>An understanding of the political, social, and cultural environments within which scaling-up takes place</p> <p>The ability to generate financial and technical resources</p> <p>Relevant technical skills</p> <p>Training capacity</p> <p>Management skills</p>	<p>The members of the user organization perceive a need for the innovation</p> <p>The user organization has the appropriate implementation capacity</p> <p>The timing and circumstances are right</p> <p>The user organization possesses effective leadership and internal advocacy</p> <p>The resource and user organizations are similar in characteristics and close in physical proximity</p>	<p>Clear messages through which the advantages of the innovation are made visible</p> <p>Personal contact and informal communication</p> <p>Early involvement of members in the user organization</p> <p>Adaptation of the innovation to the local context</p> <p>Participatory approaches</p> <p>Technical assistance and a supportive approach</p> <p>Sufficient time to implement new approaches</p> <p>Strong diffusion channels</p> <p>Training support to ensure skills transfer</p> <p>Systematic use of evidence on the process and outcomes of scaling-up</p> <p>Ongoing focus on sustainability</p>

pertise necessary to scale up the use of early literacy learning practices will be used for both vertical and horizontal scaling-up (Menter et al., 2004). A scaling-up initiative will include a state resource team, regionally constituted resource teams, and local resource teams that cover as much of the landscape of early childhood intervention programs as possible in a state. The replications of replications will occur at the local or street level. Figure 1 shows the ways in which the teams are linked going from one to several to many resource teams.

The state resource (leadership) team will include, but not be limited to, state lead agency and state education agency representatives, other state-level early childhood program representatives, Part C and Part B(619) coordinators or their designees, early childhood intervention technical-assistance program staff (Part C, Part B(619), Early Head Start, Head Start, child care, etc.), early childhood intervention opinion leaders, parent and family organization representatives, and other entrepreneurial leaders (Doig & Hargrove, 1987; Schneider & Teske, 1992). The CELL personnel that will work with these state teams will include research-to-practice experts, literacy experts, and

technical-assistance liaisons. Resource team membership will be determined based on the ability of team members to perform crucial functions (Table 1).

Resource teams at the regional and local levels (depending on each state's organizational structures) will be constituted and repeatedly recreated as the basis for horizontal scaling-up. The members of these teams will include, but not be limited to, Part C, Part B(619), Early Head Start, Head Start, child care, and other early childhood intervention program technical-assistance and professional-development providers, opinion leaders, program administrators, practitioners, parents, and other key stakeholders. Mapping the scaling-up onto existing networks of technical-assistance and early childhood intervention programs will be used since these kinds of associative strategies can be especially effective in promoting the use of and in institutionalizing new practices (CORE, 2005).

End Users

The focus of implementation for scaling up CELL early literacy learning practices will be the programmatic units assigned responsibility for providing early childhood

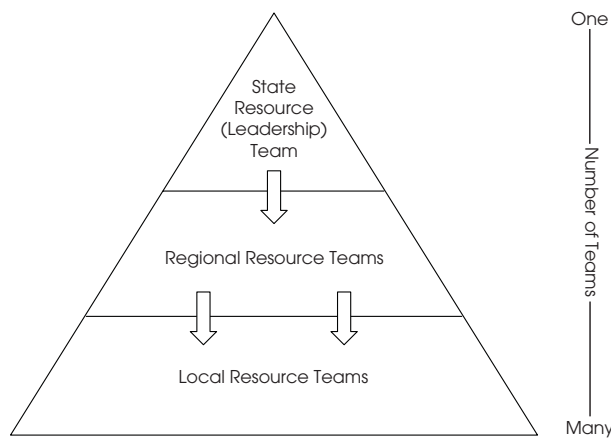


Figure 1. The three-tiered approach to scaling up the adoption and sustained use of early literacy learning practices.

intervention to young children and their families. This is expected to differ state by state and by type of program within a state. Scaling up early literacy learning practices in early childhood intervention communities is especially challenging because the unit of programmatic responsibility varies by type of program (e.g., Part C vs. Part B(619) vs. Head Start/Early Head Start) and by organizational unit (e.g., regional early intervention program vs. school district). Notwithstanding these programmatic and organization differences, practice implementation is most likely to be successful if end users value the targeted practices, understand the potential benefits of using the practices, are associated with organizations that encourage and support change, and respect the members of the resource teams providing technical assistance and training (Simmons & Shiffman, 2006).

Scaling-up Strategies

Clear message delivery by credible messengers, early and ongoing involvement of end users, and practices that make sense and fit easily with prevailing practices contribute to successful scaling-up. According to Baker (in press), “Holding a place for local innovation and contribution shows more than a tolerance of [end users] ‘messing’ with an intervention. It sets an ambience of welcome exploration” (p. 18).

Most, if not all, scaling-up experts assert that successful adoption and sustained use of targeted practices require adaptive and flexible processes and procedures that involve active participation and ownership of the innovations. Flexibility and adaptability are also important because most end users (practitioners and parents) are primarily interested in the outcomes and goals for individual children (e.g., as included on IFSPs or IEPs) so that a “one size fits all” approach would likely not work. The proposed scaling-up process and procedures will have a number of key fea-

tures that take into consideration the uniqueness of state, regional, and local early childhood intervention programs and organizations.

SCALING-UP ELEMENTS

CELL will provide technical assistance to the state resource team who in turn will provide technical assistance to the regional resource teams who will provide training to the local resource teams to promote end users’ adoption and sustained use of valued early literacy learning practices. The elements of this three-tiered approach are shown graphically in Figure 2. The key elements include the targeted practices constituting the focus of scaling-up, the resource teams promoting adoption of the practices, the capacity building of the end users, and the environmental contexts in which the scaling-up takes place.

According to Simmons and Shiffman (2006), scaling-up involves five strategic choices for developing and implementing a going-to-scale initiative (Figure 3). The choices that make most sense for CELL are ones that take into consideration the diverse ecologies of early childhood intervention programs throughout the United States. The choices for CELL are informed by the successful scaling up of school-based positive behavior supports (Barrett et al., 2006; Boezio, 2006; Sprague & Horner, 2006; Sugai & Horner, 2006; Sugai et al., 2005) and the lessons learned by others in terms of promoting the adoption of new practices (e.g., Baker, in press; Klinger, 2004; Menter et al., 2004; Miles, Ekholm, & Vandenberghe, 1987; Ovin & Miller, 1996).

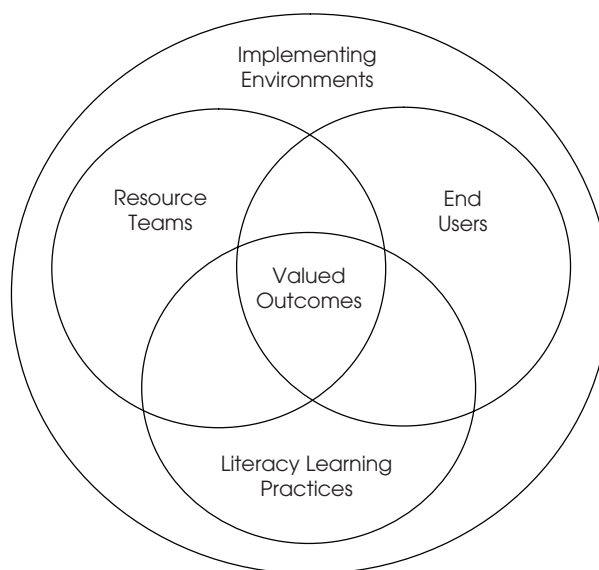


Figure 2. Key components for the promotion, diffusion, and expansion of early literacy learning practices by early childhood intervention programs.

Technical Assistance

Specialized technical assistance provided by the state, regional, and local resource teams will be the implementation contexts for promoting adoption and sustained use of the CELL literacy learning practices. Successful scaling-up initiatives have found that personal communication between the technical-assistance providers and those participating in the training contributes to buy in, commitment to, and sustained use of targeted practices (see especially Baker, in press; Elmore, 1996; Havelock & Hamilton, 2004; Menter et al., 2004; Simmons & Shiffman, 2006). This includes, but is not limited to, participatory interactive training programs, hands-on workshops, policy forums and discussions, and the opportunity to engage in dialogue around specific adoption and implementation issues. Specialized technical assistance will be supplemented by general technical assistance through the dissemination of different kinds of information using the CELL Web site, Webinars, and other electronic media.

Types of Scaling-up

Guided scaling-up and the replications and expansions of the CELL practices will be the principle types of scaling-up strategies used by the resource teams. Guided scaling-up includes both vertical and horizontal activities where the replications, termed demonstrations by Horner and Sugai (2006b; Sugai & Horner, 2006), are used to produce spread in the adoption and sustained use of the targeted practices. A key feature of guided scaling-up of the replications of replications is the infusion of new practices into the arsenal of early childhood practitioner practices in ways that strengthen rather than place additional burdens on end users.

Scaling-up Methods

Many different methods have been used for scaling up targeted practices and innovations (see e.g., Ovin & Miller, 1996). Those that make the most sense for CELL are ones that are *participatory* (rather than expert driven), *flexible and adaptive* (rather than standardized or manualized), *build capacity* (rather than prescriptive), and are *implemented gradually* (rather than rapidly). Stated differently, the methods of scaling up will be participatory, adaptive, and flexible, where the adoption and sustained use of practices occur gradually as end users become more knowledgeable and proficient in the use of the practices.

Resource Management

Resource management will be addressed in terms of both CELL resources and state resources needed to bring about sustained change. As noted by Simmons and Shiffman (2006), “Whatever form scaling-up takes, it cannot be accomplished without organizational growth or change in what we have termed the resource organization or team, that is, the individuals and organization(s) which support the process.” So important is this type of support and commitment that Sugai and Horner (2006) found it a key feature of their successful scaling up of positive behavioral supports.

The successful scaling up of a valued practice throughout a state’s early childhood intervention community is not likely to occur if human, financial, and other resources are not allocated to systems change. According to Horner and Sugai (2006a), incentives for both the resource teams and end users contribute to the success of scaling-up. Successfully scaling up any practice is also more likely to occur when the individuals providing technical assistance have

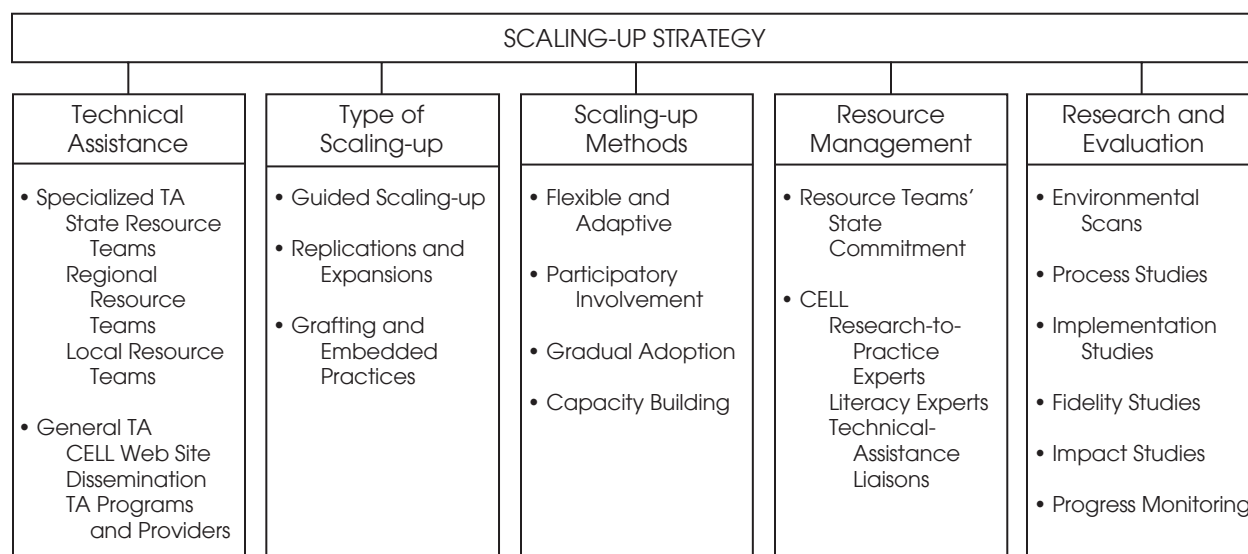


Figure 3. Five sets of considerations and choices for scaling up early childhood intervention program use of CELL literacy learning practices. Adapted from Simmons and Shiffman (2006).

the knowledge, skills, attributes, and abilities to engage in knowledge and skill transfer (Havelock & Hamilton, 2004). No practice, no matter how effective or no matter how strongly valued, will be adopted with fidelity if the persons providing the technical assistance are not able to build end-user capacity.

Three types of CELL resources will be used to build and strengthen the capacity of resource teams to promote the adoption and sustained use of early literacy learning practices: (1) Research-to-practice experts who develop user-friendly literacy learning intervention practices, (2) literacy experts who develop resource teams' understanding of early literacy learning and development and the characteristics of literacy learning practices that are most likely to have optimal positive benefits, and (3) technical-assistance liaisons with the knowledge and skills to support and strengthen the capacity of resource teams to "put into place" the kind of application infrastructures that provide contexts for the replications of replications. These experts and liaisons will work in concert to ensure the necessary CELL resources are brought to bear on the successful scaling up of evidence-based early literacy learning practices. Doing so is considered the key ingredients for fidelity of end-user adoption and sustained use of CELL practices (see Figure 4).

Research and Evaluation

Evaluation and research studies will be conducted to determine the aspects of literacy practices, learning, and outcomes that are most valued by technical-assistance providers and end users (*social marketing*), the processes and

procedures found most effective for promoting adoption and sustained use of targeted practices (*process studies*), adherence to the intervention protocols (*treatment fidelity studies*), and increased end user use of the practices and the child benefits associated with evidence-based early literacy learning practices (*impact studies*).

Environmental scans will be used to determine those aspects of early literacy learning practices and outcomes that different stakeholder groups (policy makers, early childhood program coordinators and directors, end users, etc.) consider the most important skills for young children to learn. Process studies will include an examination of both general and specialized technical assistance to identify both the facilitators and impediments to the adoption and sustained used of CELL literacy learning practices. Fidelity studies will determine the extent to which CELL literacy learning practices are implemented as intended and to determine the extent to which variations in fidelity are related to variations in outcomes (implementation analyses). Impact studies will examine the extent to which CELL technical assistance influences the adoption of targeted practices and whether use of CELL practices are associated with literacy learning. We plan to use the successful evaluations of other scaling-up initiatives as models for identifying impact measures. Sugai and Horner (2006), for example, used decreased office discipline referrals as one measure of the success of their scaling up of positive behavior supports. One measure for assessing the impact of CELL scaling-up will be increases in the number of IFSP and IEP outcome statements and goals/objectives that include literacy activities. Other outcomes will be identified as the scaling-up plan is finalized.

CONCLUSION

Scaling-up the use of an evidence-based practice, model, program, innovation, or "different way of doing business" is a complex undertaking typically attempted in the contexts of even more complex and diverse systems and settings. Managing this complexity while at the same time introducing and successfully institutionalizing new practices is not easily accomplished without a tremendous amount of resources, support, talent, and commitment. Scaling-up rarely proceeds smoothly from research to practice to implementation to institutionalization. As noted by Simmons and Shiffman (2006), "The real world is disorderly...and requires that advocates appreciate this disorder and decipher how to navigate it."

This paper included descriptions of a number of issues that we believe have the potential of scaling up early childhood intervention end-user adoption and sustained use of evidence-based early literacy learning practices. The content of this paper will be used as a framework for going to scale with a practice that has not been a main focus

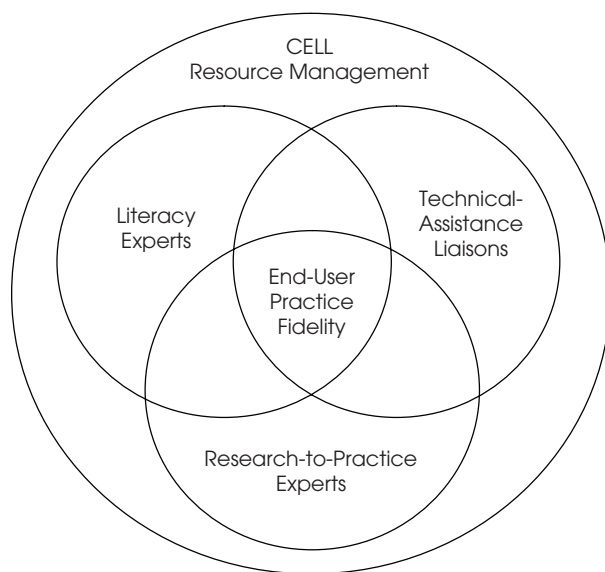


Figure 4. The three major sources of CELL technical expertise contributing to the adoption and sustained use of evidence-based practices by end users with fidelity.

of early intervention or early childhood special education with young children with identified disabilities or developmental delays. This poses special challenges that CELL will address as part of both developing, understanding, and promoting the use of early literacy practices and outcomes by technical-assistance providers and end users.

At least two OSEP-related activities serve as a foundation of scaling up early literacy learning practices. The first is the current focus on state-developed outcomes for measuring program effectiveness, including language and early literacy outcomes. The second is the focus on evidence-based practices, especially practices that will ensure that language and literacy outcomes are attained by young children with disabilities and delays. This will be accomplished in CELL by building capacity to use evidence-based literacy learning practices that have valued and desired outcomes.

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