Some Key References Related to Enabling System Change

The literature on system change continues to burgeon. Gathered here is a sampler of key references to provide a sense of what is available.

Where abstracts are available, they are included. For the other citations, the Center has made annotations. Other references will be added as they are identified.

Diffusion of Innovations and Science-Based Practices to Address Barriers to Learning & Improve Schools:

A Series of Information Resources on Enabling System Change

As calls for addressing barriers to student learning and improving schools increase, new directions are imperative. And, this involves more than tinkering with prevailing approaches. The need is for developing major innovations (e.g., comprehensive school-level prototypes) and taking them to scale throughout a school district.

The success of all this depends on stakeholders in public education becoming more knowledgeable about the complexities and strategies related to diffusion of innovations, enabling major systemic changes, and developing a *sophisticated* understanding of the role of empirically-based practices.

To these ends, the Center is producing a series of resources, such as this one, to provide informational aids for use as tools in policy and practice analyses, research, education, and school improvement planning.

The Center for Mental Health in Schools is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA, Los Angeles, CA 90095-1563. Phone: (310)825-3634.

Some Key References Related to Enabling System Change

>Ackoff, R.L. (1998). A systemic view of transformational leadership. *Systemic Practice and Action Research, 11,* 23-36.

A systemic view of transformational leadership is developed. Initially the terms administration, management, and leadership are distinguished. Leadership as an aesthetic function is then discussed. Growth, visions, and strategy continue discussions. It is then argued why leadership cannot be taught. Ways of viewing the world as systems that underpins transformational leadership are then set out. The paper concludes with a discussion of systemic transformation. (Available online in *The F.M. Duffy Reports, 11,* 1-11 [2006] – www.thefmduffygroup.com)

>Adelman, H. S. & Taylor, L. (1997). Toward a Scale-Up Model for Replicating New Approaches to Schooling. *Journal of Educational and Psychological Consultation, 8,* 197-230.

For school reform to succeed, promising prototypes must be replicated on a large scale. Unfortunately, relatively little work has been done to build conceptual models and develop specific interventions for addressing the process and problems associated with widespread diffusion of reforms. With a view toward advancing the state of the art, a "scale-up" model for replicating school reform prototypes is described. Four overlapping phases and related guidelines for scale-up are conceived. The four phases are (a) *creating readiness* by enhancing a climate/culture for change; (b) *initial implementation,* whereby replication is carried out in stages using guidance/support mechanisms;(c) *institutionalization,* accomplished by ensuring mechanisms to maintain and enhance productive changes; and (d) *ongoing evolution* through use of mechanisms to improve quality and provide continuing support. The model presented has fundamental implications for educational and psychological professionals concerned with major school reforms and is meant to stimulate research on the problem of advancing knowledge of effective scale-up.

>Adelman, H. S. & Taylor. L. (2003) On Sustainability of Project Innovations as Systemic Change. *Journal of Educational and Psychological Consultation, 14, 1-26.*

Explores sustainability in terms of systemic change. Highlighted are basic ideas, phases, stages, steps, and lessons learned related to planning, implementation, maintenance, and scale-up of school-based innovations. A particular emphasis is on efforts designed to enhance how schools address barriers to learning and teaching. The discussion is framed around the idea that the likelihood of sustaining any new approach is increased if it is integrated into the fabric of existing school improvement efforts.

>Adelman, H. S. & Taylor, L. (2006a) *The school leader's guide to student learning supports: New directions for addressing barriers to learning.* Thousand Oaks, CA: Corwin Press.

For school improvement efforts to succeed in ways that truly improve student achievement and test scores, systemic changes must be made in how schools provide learning supports. This guide for school leaders (along with a companion implementation guide) provides a foundation for understanding the substance of needed innovations and highlights diffusion considerations.

>Adelman, H. S. & Taylor, L. (2007). Systemic change and school improvement. *Journal of Educational and Psychological Consultation, 17,* 55-77.

Despite the nationwide emphasis on school improvement, the complexities of accomplishing desired systemic changes have been given short shrift in policy, research, training, and practice. This article focuses on the problem of expanding school improvement planning to better address how schools and districts intend to accomplish designated changes. Specifically, the work frames and outlines some basic considerations related to systemic change, encourages a wider policy discussion of the complexities of implementing major school improvements on a large scale, and proposes a set of policy actions.

>Adelman, H.S., & Taylor, L. (2008). School improvement: A systemic view of what's missing and what to do about it. In B. Despres (Ed.), *Systems thinkers in action: A field guide for effective change leadership in education.* Rowman & Littlefield Education.

Begins with an analysis of how school improvement planning marginalizes and thus fragments effort to address learning, behavior and emotional problems that interfere with success at school. This is followed by a discussion of (a) the type of comprehensive system that is needed and (b) considerations related to making systemic changes that are sustainable and can be implemented throughout a school district.

>Argyris, C. (1993) *Knowledge for action: A guide to overcoming barriers to organizational change.* San Francisco: Jossey-Bass.

Discusses ways to solve problems, enhance human development and learning, and promote individual, organizational, and social change – based on a theory of organizational inquiry. A step-by-step description of how to assess an organization's capacity to learn, analyze data, and design and implement effective interventions that help create more dynamic and innovative organization. Calls for a partnership between professionals and researchers both to implement research properly and to test its results in everyday life.

>Backer, T.E. (2000). The failure of success: Challenges of disseminating effective substance abuse prevention programs. *Journal of Community Psychology, 28,* 363-373.

Discusses three interrelated matters that affect dissemination and stresses that such efforts need to be pursued as a process of innovation and change.

>Barwick, M.A., Boydell, K.M., Stasiulis, E., Ferguson, H.B., Blase, K., & Fixsen, D. (2005). Knowledge transfer and evidence-based practice in children's mental health. Toronto, ON: Children's Mental health Ontario. – http://ns1.ournameservers.com/~cmho.org/documents/KT_exec_summary.pdf

Reviews knowledge transfer, readiness for change, and implementation science; presents data from interviews. Also provides an extensive annotated bibliography online http://ns1.ournameservers.com/%7Ecmho.org/documents/KTannotated_bliography.pdf

>Boyd, W.L., Kerchener, C.T., & Blyth, M. (Eds.) (2008). *The transformation of great American school districts: How big cities are reshaping public education.* Cambridge, MA: Harvard Education Press.

Argues that urban education reform can best be understood as a long process of institutional change, rather than as a series of failed projects. Examines core assumptions that underlay the Progressive Era model of public education (apolitical governance, local control, professional hierarchy, and the logic of confidence) and suggests that recent developments in school governance have challenged cirtually all of these. Case studies of five urban districts are analyzed (Philadelphia, Chicago, D.C., New York, Los Angeles). Implications for systemic change thinking are discussed.

>Brach C, Lenfestey N, Roussel A, Amoozegar J, Sorensen A. *Will It Work Here? A Decisionmaker's Guide to Adopting Innovations*. Prepared by RTI International under Contract No. 233-02-0090. Agency for Healthcare Research and Quality (AHRQ) Publication No. 08-0051. Rockville, MD: AHRQ; September 2008. http://innovations.ahrq.gov/resources/InnovationAdoptionGuide.pdf

The goal of this Guide is to promote evidence-based decisionmaking and help decisionmakers determine whether an innovation would be a good fit—or an appropriate stretch—for their health care organization. Guided by a framework that regards adoption as a process, rather than an event, the tool is based on a modified version of the core concepts in Rogers' Diffusion of Innovations (Rogers, 2003). For the purposes of this Guide, an innovation is a new way of doing things to improve health care delivery. An innovation may be a product, a service, a process, a system, an organizational structure, or a business model. If it is new to your organization, it is an innovation, even if it has been around for a while in other contexts.

>Budman, S. H., Portnoy, D. & Villapiano, A. J. (2003) How to get technological innovation used in behavioral health care: Build it and they still might not come. *Psychotherapy: Theory, Research, Practice, Training, 40,* 45-54.

Presents models of the diffusion of innovation and how they can assist behavioral health systems and providers in not just acquiring, but implementing technological advances within their organizations. Through the case study of a multimedia substance abuse screening program various perspectives on the diffusion of this innovation are used to illustrate how early adoption has taken place in many behavioral health care settings. Addresses the reasons for the relatively successful diffusion, as well as the problems that have impeded even wider use.

>Castro, F.G., Barrera Jr., M., & Martinez Jr, C.R. (2004). The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science, 5,* 41-45.

A dynamic tension has developed in prevention science regarding two imperatives: (a) fidelity of implementation – the delivery of a manualized prevention intervention program as prescribed by the program developer, and (b) program adaptation – the modification of program content to accommodate the needs of a specific consumer group. This paper examines this complex programmatic issue from a community-based participatory research approach for program adaptation that emphasizes motivating community participation to enhance program outcomes. Several issues, key concepts, and implementation strategies are presented under a strategic approach to address issues of fidelity and adaptation. Stresses an innovative program design strategy to develop *hybrid prevention programs* that build in adaptation to enhance program fit while also maximizing fidelity of implementation and program effectiveness.

>Center for Mental Health in Schools (2000). *Organization Facilitators: A Change Agent for Systemic School and Community Changes* .
http://smhp.psych.ucla.edu/pdfdocs/Report/orgfacrep.pdf

Stresses that substantive systemic changes require guidance and support from professionals with mastery level competence for creating a climate for change, facilitating change processes, and establishing an institutional culture where key stakeholders continue to learn and evolve. Highlights a change model for establishing, sustaining, and scaling-up school and community reforms and the role of an Organization Facilitator to aid with major restructuring.

>Center for Mental Health in Schools (2001) *Sustaining School and Community Efforts to Enhance Outcomes for Children and Youth: A Guidebook and Tool Kit*.
http://smhp.psych.ucla.edu/pdfdocs/sustaining.pdf

Explores how to integrate newly developed approaches into the fabric of existing support programs and services. Designed as a resource aid for those in schools and communities who are concerned about sustaining valuable initiatives and innovations, especially those developed as short-term projects.

>Center for Mental Health in Schools (2005). *Systemic Change for School Improvement: Designing, Implementing and Sustaining Prototypes and Going to Scale*.
http://smhp.psych.ucla.edu/pdfdocs/systemic/ExecSystemicReport.pdf

To encourage a greater policy discussion of the complexities of implementing major school improvements on a large scale, this report (a) discusses the need to expand school improvement planning to address *how* schools and districts will accomplish necessary systemic changes, (b) outlines some basic considerations related to systemic change, and (c) proposes a set of policy actions.

>Center for Mental Health in Schools (2004). *New Initiatives: Considerations Related to Planning, Implementing, Sustaining, and Going-to-Scale.*
http://smhp.psych.ucla.edu/pdfdocs/briefs/sustainbrief.pdf

Designed to highlight considerations and provide guidance related to planning, implementing, and sustaining new initiatives in schools.

Choi, J.N., Sung, S.Y., Lee, K. & Cho, D. (2010). Balancing cognition and emotion: Innovation implementation as a function of cognitive appraisal and emotional reactions toward innovation. Journal of Organizational Behavior, http://onlinelibrary.wiley.com/doi/10.1002/job.684/pdf

The present study identifies employees' emotional reactions toward innovation as a mediating process that explains the effects of institutional environment on collective innovation use in work units. We further employed the appraisal theory of emotion and affective events theory (AET) to conceptualize the relationships between cognitions and emotions involving innovation. This expanded conceptual model was tested using multi-source data from 1150 employees and managers of 81 branches of a Korean insurance company that were implementing a new practice called Life-Long Learning. Two contextual factors (management involvement and training for innovation) significantly predicted employees' collective cognitive appraisal of the innovation (perceived usefulness and perceived ease of use). Collective cognitive appraisal in turn predicted employees' positive and negative emotions toward the innovation, which completely mediated the effects of contextual factors and cognitive appraisal on implementation effectiveness (consistent and committed use of the innovation in the branch). This study highlights the critical role of emotions in the context of innovation implementation, and shows the need for greater attention to emotional processes in examining organizational innovations.

Note: In an 2010 abstract about recent work , Choi states: "Departing from the prevailing view in the literature that dichotomizes the end result of innovation implementation as either resistance or acceptance, we advance an alternative model that broadens the conceptualization of innovation implementation. We attend to the interaction between innovation and its users and propose that innovation implementation must be characterized by incorporating different levels of changes that are undergone by the innovation and its users. Specifically, we identify four distinct forms of implementation: mechanical implementation, learning, reinvention, and mutual adaptation. Using those concepts, we develop a conceptual framework that explains different forms of innovation implementation as functions of innovation properties, individual characteristics, and contextual factors related to implementation. Our theoretical framework thus contributes to the literature by acknowledging that innovations in organizations often take on a life on its own and modify itself unintentionally, imposing the need for individual adaptation and strategic management of implementation processes."

>Ciliska, D., Thomas, H., & Buffett, C. (2008). An Introduction to Evidence-Informed Public Health and A Compendium of Critical Appraisal Tools for Public Health Practice. National Collaborating Centre for Methods and Tools (NCCMT). Hamilton, Ontario. http://www.nccmt.ca/pubs/eiph_backgrounder.pdf

This background paper defines and summarizes the concept of Evidence-Informed Public Health (EIPH) recognizing that, to use evidence in public health practice and policy development, one must first critically appraise the available research that provides the basis for that evidence.

This paper addresses the need for critical appraisal of primary research studies and systematic reviews to inform effective public health practice. It also outlines a hierarchy of quality of research evidence that can be used to inform public health policy and program delivery.

For that reason, this paper presents some of the more commonly used critical appraisal tools. These tools provide basic guidelines and checklists for public health professionals to evaluate the quality of research when reading the literature. Web links in the compendium that accompanies this paper will direct users to some of the most current and usable tools.

>Connell, J.P. & Klem, A.M. (2000). You *can* get there from here: Using a theory of change approach to plan urban education reform. *Journal of Educational and Psychological Consultation, 11,* 93-120.

Presents a theory of change approach to planning educational reform initiatives with a focus on district level efforts. Uses examples from ongoing consulting work with urban school districts to stress a planning process that can yield a theory of change that meets 4 criteria: plausible, doable, testable, and meaningful. The benefits for evaluation and implementation of district level educational reform are also discussed.

>Cowan, D. ,Joyner, S., & Beckwith, S. (2008). *Working Systemically in Action: A Guide for Facilitators.* SEDL. http://www.sedl.org/pubs/index.cgi?l=item&id=teaching20&smc=bulletin200901

The Working Systemically approach is a process for school improvement—and, ultimately, increased student achievement—that focuses on key components and competencies at all levels of the local educational system. The guide gives technical assistance providers a framework and tools to help schools and districts establish a culture of continuous inquiry and collaboration, as well as develop the structures and leadership roles necessary to support and sustain both student and staff learning.

>Despres, B. (Ed.) (2008). *Systems thinkers in action: A field guide for effective change leadership in education.* Rowman & Littlefield Education.

Offers a sample of new directions thinking related to systemic change in education within a broad social and global context. Includes practical considerations.

>Dopson, S., Fitzgerald, L., Ferlie, E., Gabbay, J., & Locock, L. (2002) No magic targets: Changing clinical practice to become more evidence based. *Health Care Management Review*, 37, 35-47.

Focuses on the diffusion and adoption of innovations in clinical practice. The authors are specifically interested in under-researched questions concerning the latter stages of the creation, diffusion, and adoption of new knowledge, namely: What makes this information credible and therefore utilized? Why do actors decide to use new knowledge? And what is the significance of the social context of which actors are a part?

>Dusenbury, L. & Hansen, W.B. (2004). Pursuing the course from research to practice. *Prevention Science*, 5, 55-59.

Diffusion of Innovation Theory describes the typical course by which innovations become standard practice. Research-based prevention programs are one such innovation. These programs have passed through the early phases of diffusion – innovation development and adoption by progressive schools that seek out innovations. With one quarter of the nation's schools having adopted a research-based program, the field is currently in the early majority phase of diffusion. If the patterns of normal diffusion hold true, this phase is likely to be characterized by emerging tensions between program developers and adopting schools. There are several concerns that require attention from researchers and practitioners. Practitioners need to develop their capacity to implement programs with fidelity and to adapt programs appropriately to meet their circumstance. Program developers need to simplify and redesign programs to make them appealing and useful to teachers. Operational capacity to fulfill orders and provide training needs to be developed

>Duffy, F.M. (2005). *Power, politics and ethics: Dynamic leadership for whole-system change in school districts.* Lanham, MD: Rowman & Littlefield Education.

This book contributes to the literature on the ethical use of power and political skills to lead whole system change within school districts. Discusses the context for change in school districts, including a compendious description of a methodology specially designed to create and sustain whole-system change. Seven essays written by noted theorists and practitioners offer insights on how to use power and political skills in ethical ways.

>Duffy, F. M. (2011). Training teams of educators to become masters of the art & science of transforming school systems: Designing a change leadership academy: Training. The F. M. Duffy Reports, 16(2), 1- 19.

This report provides an overview of a design for a Change Leadership Academy to train teams of educators to become masters of the art and science of transformational change.

>Elliott, D.S. & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. *Prevention Science, 5,* 47-53.

The Blueprints for Violence Prevention-Replication Initiative has identified factors that enhance or impede successful implementation of programs. Findings are organized around five implementation tasks: site selection, training, technical assistance, fidelity, and sustainability. Overall, careful attention to each of these tasks, together with an independent monitoring of fidelity can produce successful implementation with high fidelity and sustainability. Implications for the local adaptation-fidelity debate are discussed.

>Ferlie, E., Fitzgerald, L., Wood, M., & Hawkins, C. (2005). The nonspread of innovations: The mediating role of professionals, *Academy of Management Journal*, *48*, 117-134.

Two qualitative studies in the U.K. health care sector traced eight innovations and are used to help explain barriers to the spread of innovation in multi-professional organizations. Complex, contested, and nonlinear innovation careers emerged. The authors suggest that multi-professionalization shapes "nonspread." Social and cognitive boundaries between different professions retard spread, as individual professionals operate within unidisciplinary communities of practice.

>Fitzgerald, L., Ferlie, E., Wood., M., & Hawkins, C. (2002) Interlocking interactions, the diffusion of innovations in health care. *Human Relations*, 55, 1429-49.

Aims to provide a reassessment of the processes of diffusion of innovations into organizations. The focus is on the latter stages of the diffusion process. Draws on the results of two studies examining the diffusion of innovations in health care in the UK. The highly interactive nature of diffusion, with active adopters is illustrated. Discusses that the science is socially mediated and that the features of context and of actors interlock to influence diffusion.

>Fixsen, D.L., Naoom, S.F., Blase, K.A., Friedman, R.M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature.* Tampa, FL: The National Implementation Reserach Network, University of South Florida. Retrieved November 22, 2006 from: http://nirn.fmhi.usf.edu/resources/publications/Monograph

The authors state: “the purpose of this review is to create a topographical map of implementation as seen through evaluations of factors related to implementation attempts. It is not an attempt to be exhaustive. Given the state of the field, the goal was to “review loosely” to capture meaning, detect relationships among components, and help further the development of the practice and science of implementation.”

>Fleuren, M., Wiefferink, K., & Paulussen, T. (2004). Determinants of innovation within health care organizations. *International Journal for Quality in Health Care*, 16(2),107–123.

A literature review and Delphi study were conducted to obtain an overview of determinants of innovation in health care organizations. 49 determinants were identified as impeding or facilitating innovation.

>Foster-Fishman, P.G., & Behrens, T.R. Systems change reborn: Rethinking our theories, methods, and efforts in human services reform and community-based change, *American Journal of Community Psychology* 39 (3/4) (2007), pp. 191–196.

Journal Abstract: This article introduces the reader to this special issue on Systems Change and highlights six lessons learned about theory, methods, and interventions for systems change that emerged across the included articles. The value of a systems approach to systems change is examined, including the need for frameworks, methods, and change activities that attend to the characteristics of systems.

>Fullan, M. (2005) *Leadership & sustainability: System thinkers in action.* Thousand Oaks, CA: Corwin Press.

Building on ideas established in *The Moral Imperative of School Leadership*, the author confronts the question: How do you develop and sustain a greater number of system thinkers in action, or new theoreticians? Linking abstract concepts to concrete examples, this work defines an agenda for the system thinker in action, including eight elements of sustainability that can be applied to any public service or corporate institution.

>Gladwell, M. (2000). *The tipping point: How little things can make a big difference.* Little, Brown.

Focuses specifically on exploring why change often happens quickly and unexpectedly. Gladwell suggests we can understand the process by thinking of it in terms of epidemics. He states: “Ideas and products and messages and behaviors spread just like viruses do."

>Glennan, T.K., Bodilly, S.J., Galegher, J., & Kerr, K.A. (Eds.) (2004). *Expanding the reach of education reforms: Perspectives from leaders in the scale-up of educational interventions.* Santa Monica, CA: RAND

The process of developing and scaling up education reforms is iterative and complex, requiring cooperative interactions among program developers, policy makers, and school authorities. Successful scale-up efforts have four properties: widespread implementation, deep changes in classroom practices, sustainability, and a sense of ownership of new practices and policies among teachers and school leaders. Reform efforts must take into account a set of eight core tasks: developing and providing support for implementation, ensuring high quality implementation at each school site, evaluating and improving the intervention, obtaining financial support, building organizational capacity, marketing, adapting to local contexts, and sustaining the reform over time.

>Granger, R.C. *The Big Why? A Learning Agenda for the Scale Up Movement*. Pathways Magazine (Winter 2011). http://www.wtgrantfoundation.org/File%20Library/Publications/PathwaysWinter11.pdf

This resource offers a few excerpts to highlight an important article by Robert C. Granger, President of the William T. Grant Foundation. He raises concerns about the prevailing model for scaling-up promising practices and poses six questions as a learning agenda for those who are part of the scale-up movement. The piece was published by the Stanford Center for the Study of Poverty and Inequality.

>Green, L. W., & Glasgow, R. E. (2006). Evaluating the relevance, generalization, and applicability of research: Issues in external validity and translation methodology. *Evaluation & the Health Professions*, 29, 126-153

Journal Abstract: Starting with the proposition that "if we want more evidence-based practice, we need more practice-based evidence," this article (a) offers questions and guides that practitioners, program planners, and policy makers can use to determine the applicability of evidence to situations and populations other than those in which the evidence was produced (generalizability), (b) suggests criteria that reviewers can use to evaluate external validity and potential for generalization, and (c) recommends procedures that practitioners and program planners can use to adapt evidence based interventions and integrate them with evidence on the population and setting characteristics, theory, and experience into locally appropriate programs. The development and application in tandem of such questions, guides, criteria, and procedures can be a step toward increasing the relevance of research for decision making and should support the creation and reporting of more practice-based research having high external validity.

> Green, L.W., Ottoson, J.M., Garcia, C., & Hiatt, R. (2009). Diffusion Theory and Knowledge Dissemination, Utilization, and Integration in Public Health. *Annual Review of Public Health*, 30. 151-174.

Legislators and their scientific beneficiaries express growing concerns that the fruits of their investment in health research are not reaching the public, policy makers, and practitioners with evidence-based practices. Practitioners and the public lament the lack of relevance and fit of evidence that reaches them and barriers to their implementation of it. Much has been written about this gap in medicine, much less in public health. We review the concepts that have guided or misguided public health in their attempts to bridge science and practice through dissemination and implementation. Beginning with diffusion theory, which inspired much of public health's work on dissemination, we compare diffusion, dissemination, and implementation with related notions that have served other fields in bridging science and practice. Finally, we suggest ways to blend diffusion with other theory and evidence in guiding a more decentralized approach to dissemination and implementation in public health, including changes in the ways we produce the science itself.

>Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations, *Milbank Quarterly, 82*, 581-629. http://www.milbank.org/quarterly/8204feat.html

Summarizes a literature review addressing the question, How can we spread and sustain innovations in health service delivery and organization? Considers both content (defining and measuring the diffusion of innovation in organizations) and process (reviewing the literature in a systematic and reproducible way). Discusses (1) an evidence-based model for considering diffusion of innovation in health service organizations, (2) knowledge gaps, and (3) methodology for systematically reviewing health service policy and management.

>Greenhalgh, T., Bate, R., Kyriakidou, O., Macfarlane, F., & Peacock, R. (2005) *Diffusion of innovations in health service organisations: A systematic literature review*. Oxford: Blackwell.

A systematic review of how innovations in health service practice and organisation can be disseminated and implemented. The results of the review are discussed in detail in separate chapters covering particular innovations and contexts.

>Hall, G.E. & Hord, S.M. (2001). *Implementing change: Patterns, principles, and potholes.* Boston: Allyn and Bacon.

Focuses on how school leaders can understand, evaluate and facilitate the change process. Presents a number of research-based models and tools along with examples of how each can be used to facilitate change efforts. The primary perspective for understanding change used in this book is the Concerns Based Adoption Model (CBAM).

>Hargreaves, A., & Fink, D. (2000). The three dimensions of reform. *Educ. Leadership, 57*, 30-34.

Stresses that educational reform must have: 1) depth to improve important, rather than superficial, aspects of student learning; 2) length to be sustained over time; and 3) breadth to be extended beyond a few schools. Depth means going far beyond a superficial goal of raising test scores to wanting "deep, powerful, high-performance learning for understanding that prepares young people to participate in today's society." Deep learning involves connections to ones' own cultures and lives for intellectual, social, and emotional understanding. Sustaining change requires leadership stability; staff recruitment and retention of teachers with the same vision, high energy, and enthusiasm; nurturing district policy and context; and community support of what a school should be.

>Havelock, R.G., & Zlotolow, S. (1995). *The change agent's guide* (2nd ed.). Education Technology Pubs.

This guidebook outlines change agents functions and strategies. Includes an annotated bibliography.

>Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence-based practice: A conceptual framework. *Quality in Health Care*, 7(3),149–158.

Proposes a multidimensional framework for successful implementation of research to practice that calls for an analysis of the simultaneous interplay among three core elements. The elements and their conditions are: Evidence (E), defined as a combination of research rigor, clinical consensus, and patient choice; Context (C), defined as the setting or environment in which the change will be implemented and subdivided into prevailing culture, leadership, and measurement of processes and outcomes; Facilitation (F), defined as techniques by which one person makes things easier for others by consciously using interpersonal and group skills to achieve change. Stresses the role of the personal characteristics of the facilitator, clarity of the facilitator's role, and style.

>Lehman, W.E.K., Greener, J.M., & Simpson, D. D. (2002). Assessing organizational readiness for change. *Jo. Substance Abuse Treatment, 22,* 197-209

Describes the rationale and structure for an instrument for assessing organizational functioning and readiness for change (ORC). Focuses on motivation and personality attributes of program leaders and staff, institutional resources, and organizational climate. States the ORC has acceptable psychometric properties for studying organizational change and technology transfer by identifying functional barriers.

>Li, J. & Julian, M. (2012). Developmental relationship as the active ingredient: A unifying working hypothesis of what works across intervention settings. *American Journal of Orthopsychiatry*.
http://www.ocd.pitt.edu/Files/Publications/Developmental%20Relationships%20Li%20%26%20Julian%202012%20Orthopsychiatry.pdf

Journal abstract: Developmental relationships are characterized by reciprocal human interactions that embody an enduring emotional attachment, progressively more complex patterns of joint activity, and a balance of power that gradually shifts from the developed person in favor of the developing person. We propose the working hypothesis that developmental relationships constitute *the* active ingredient of effective interventions serving at-risk children and youth across settings. In the absence of developmental relationships, other intervention elements yield diminished or minimal returns. Scaled-up programs and policies serving children and youth often fall short of their potential impact when their designs or implementation drift towards manipulating other inactive ingredients (e.g., incentive, accountability, curricula) instead of directly promoting developmental relationships. Using empirical studies as case examples, we demonstrate that the presence or absence of developmental relationships distinguishes effective and ineffective interventions for diverse populations across developmental settings. We conclude that developmental relationships are the foundational metric with which to judge the quality and forecast the impact of interventions for at-risk children and youth. It is both critical and possible to give foremost considerations to whether our program, practice, and policy decisions promote or hinder developmental relationships amongst those who are served and those who serve.

>McCormack, l., Steckler, A., Mcleroy, K. (1995). Diffusion of innovations in schools: A study of adoption and implementation of school-based tobacco prevention curricula. *American Journal of Health Promotion, 9, 210-19.*

Studied the extent of implementation of school health education curricula to identify factors which enhanced or impeded implementation and to examine the link between the adoption and implementation phases of the diffusion process. Nonparametric correlations and regression modeling indicated that larger organizational size and teacher training were the strongest predictors of curricula implementation. A favorable organizational climate within school districts also improved implementation.

>Magnabosco, J.L. (2006). Innovations in mental health services implementation: A report on state-level data from the U.S. Evidence-Based Project. *Implementation Science, 1:13.* Retrieved November 22, 2006 from: http://www.implementationscience.com/content/1/1/13

The *Evidence-Based Practice* (EBP) *Project* has been investigating the implementation of evidence-based mental health practices in state public mental health systems in the United States since 2001. This paper reports results of an effort to identify and classify state-level implementation activities and strategies employed across eight states. A classification scheme and list of innovative implementation activities and strategies is presented.

>Metz, A, & Bartley, L. (2012). Active implementation frameworks for program success: How to use implementation science to improve outcomes for children, *Zero to Three*. http://www.zerotothree.org/about-us/areas-of-expertise/reflective-practice-program-development/metz-revised.pdf

In 2005, the National Implementation Research Network released a monograph (Fixsen, Naoom, Blase, Friedman, & Wallace) that synthesized implementation research findings across a range of fields and developed four overarching frameworks, referred to as the Active Implementation Frameworks, based on these findings. While recognizing that creating practice and systems change is a nonlinear, interconnected process, for the purpose of this article the authors discuss these frameworks individually.

>Miller, R.L. & Shinn, M. (2005). Learning from communities: Overcoming difficulties in dissemination of prevention and promotion efforts. *American Journal of Community Psychology, 35,169-83.*

Argues that the model of prevention science advocated by the Institute of Medicine has not lead to widespread adoption of prevention and promotion programs for four reasons. The model of dissemination of programs to communities fails to consider community and organizational capacity to implement programs, ignores the need for congruence in values between programs and host sites, displays a pro-innovation bias that undervalues indigenous practices, and assumes a simplistic model of how community organizations adopt innovations. Proposes that researchers should locate, study, and help disseminate successful indigenous programs that fit community capacity and values. In addition, they should build on theoretical models of how locally developed programs work to make existing programs and polices more effective.

>Nonaka, I. & Takeuchi, H. (1995) *The knowledge creation company: How Japanese companies create the dynamics of innovation*. NY: Oxford Univ. Press.

Contends that Japanese firms are successful because they are innovative, that is, because they create new knowledge and use it to produce successful products and technologies. They identify two types of organizational knowledge: explicit knowledge, contained in procedures and manuals, and tacit knowledge, learned only by experience. Suggests that U.S. managers tend to focus on explicit knowledge and stress approaches such as benchmarking, while the Japanese focus on tacit knowledge.

>O'Neill, H., Pounder, P. & Buchholtz, A., (2002) Patterns in the diffusion of strategies across organisations: insights from the innovation diffusion literature. *Academy of Management Review, 23, 98-114.*

Firms often adopt strategies in spite of mixed evidence about the strategy's performance and evidence that the strategy leads to inefficient outcomes. Describes the conditions prompting the spread of inefficient strategies. Focuses on one pattern that appears common to strategic adoptions: a pattern where the number of unsuccessful adoptions exceeds the number of successful adoptions. Notes how the failure to consider diffusion patterns in empirical strategic research limits use of that research as a source of prescriptive theory.

>Ottoson, J. M. (2009). Knowledge-for-action theories in evaluation: Knowledge utilization, diffusion, implementation, transfer, and translation. In J. M. Ottoson & P. Hawe (Eds.), *Knowledge utilization, diffusion, implementation, transfer, and translation: Implications for evaluation. New Directions for Evaluation*, 124, 7–20.

Five knowledge-for-action theories are summarized and compared in this chapter for their evaluation implications: knowledge utilization, diffusion, implementation, transfer, and translation. Usually dispersed across multiple fields and disciplines, these theories are gathered here for a common focus on knowledge and change. Knowledge in some form (ideas, innovation, skills, or policy) moves in some direction (laterally, hierarchically, spreads, or exchanges) among various stakeholders (knowledge producers, end users, or intermediaries) and contexts (national, community, or organizational) to achieve some outcomes (intended benefits, unanticipated

outcomes, or hijacked effects). Although rooted in different disciplines, sensitive to different key indicators, and following different process paths, these theories individually and collectively provide multiple lenses on the evaluation of complex interventions. A table compares key theory points of disciplinary roots, type of knowledge, movement of knowledge, contextual influences, and the added lens of each theory. These lenses are used to analyze the set of theories for evaluation implications.

>Payne, A.A., Gottfredson, D.C., & Gottfredson, G.D. (2006). School predictors of the intensity of implementation of school-based prevention programs: Results from a national study. *Prevention Science, 7,* 225-237.

Research has indicated that the effectiveness of school-based prevention programs is affected by the implementation quality of these programs. Data from a nationally representative sample of 544 schools were used to examine structural equation models representing hypothesized relationships among school and program factors and implementation intensity, controlling for exogenous community factors. Significant relationships were found between implementation intensity and several school and program factors, including local program development process, integration into school operations, organizational capacity, principal support, and standardization. Implications are discussed.

>Pentz, M.A. (2004). Form follows function: Designs for prevention effectiveness and diffusion research. *Prevention Science, 5,* 23-29.

Prevention research is at a stage where evidence-based programs and strategies have been identified, and the next question is how to diffuse them. However, the context in which evidence-based programs were first tested and found to be effective may have changed, raising the question of whether the current burden of proof of effectiveness of these programs should be examined before, or at least in conjunction with, diffusion research. This paper discusses, first, contextual changes in testing the effectiveness of prevention programs that have been hitherto identified as evidence-based, and then suggests designs for the next generation of effectiveness trials. Following this, gaps in current diffusion research are discussed according to the four stages of diffusion: adoption, implementation, dissemination, and sustainability, with the major focus on implementation. Designs that may address these gaps in future research are considered, with particular application to prevention research in schools.

>Replication and Program Services (1993). *Building from strength: Replication as a strategy for expanding social programs that work.* Philadelphia: Author.

Investigates the potential of replication for extending the scale of effective services in the fields of domestic social programs. Gathers information on the cost-effective use of scarce resources, and considers possible steps that might be taken by foundations and public agencies to help promising local programs expand their activities to new sites. Finds that replication does not typically occur as a result of deliberate public policy, but as a private, occasional, ad hoc entrepreneurial effort. Concludes that replication is not currently utilized to anywhere near its potential as a tool to assist local decision-making in deploying limited resources, to establish standards of effectiveness in large systems, and to promote local staff professional development and productivity.

>Rogers, E.M. (2003) *The diffusion of innovations*, fifth edition. New York: The Free Press.

This book provides an extensive overview of the history, concepts, and concerns related to the focus on diffusion of innovations. The work is widely cited and considered by many to be a ground-breaking and foundational work. Because of its importance, we have done an overview of major concepts as a separate *Information Resource* – see http://smhp.psych.ucla.edu

>Rosenheck, R.A. (2001). Organizational process: A missing link between research and practice. *Psychiatric Services, 52,* 1607-1612.

Organizational process is an underexamined barrier and a potential bridge for the introduction of innovative treatment models into mental health practice. The author describes key operational characteristics of large, complex organizations and strategies that have been used to facilitate implementation of innovative programs in the Department of Veterans Affairs health care system. He argues that complex organizations of the type in which mental health care is increasingly delivered are characterized by multiple competing goals, uncertain technologies, and fluid involvement of key participants. Interventions shown to be effective in controlled studies are often not easily introduced into such organizations. The author shows how effective dissemination of new treatment methods requires attention to and effective engagement with organizational processes. Key strategies for moving research into practice are seen as including constructing decision-making coalitions, linking new initiatives to legitimated goals and values, quantitatively monitoring implementation and ongoing performance, and developing self-sustaining communities of practice as well as learning

organizations.

>Sarason, S.B. (1996). *Revisiting "The culture of school and the problem of change."* New York: Teachers College Press.

Explores why promising innovations and systemic changes too often are not substantively implemented and scaled-up. Raises the concern that the reform arena is intent on the dismantling of the public school system and that defenders are not focusing on the real issues.

>Senge, P. et al. (1999). *The dance of change: Mastering the twelve challenges to change in a learning organization.* New York: Doubleday.

Discusses the five disciplines Senge and his colleagues see as central to learning organizations and explores concerns related to the theory and practice of learning organizations.

>Sherry, L. (2003). Sustainability of innovations. *Journal of Interactive Learning Research, 13,* 209-236.

The literature on institutionalization, scalability, and sustainability that is explored within this article goes back several decades. Discusses issues of bringing about systemic change, transforming traditional institutions into learning organizations, scaling the innovations, leveraging funds, forming new partnerships, and spawning new entities to support and sustain valued activities .

>Taylor, L., Nelson, P., & Adelman, H.S. (1999). Scaling-up reforms across a school district. *Reading & Writing Quarterly, 15,* 303-326.

States the field of education has paid little attention to the full array of complexities involved in large-scale replication of innovations for school improvement. Highlights a framework of overlapping general phases and specific steps for diffusion of major new approaches across a school district. The phases encompass: (1) creating readiness, (b) initial implementation, (c) institutionalization, and (d) ongoing evolution. Discussion includes lessons learned in applying the framework.

>Thomas, R.M. (2002). *Overcoming inertia in school reform: How to successfully implement change*. Thousand Oaks, CA: Corwin Press.

An insider's look at the causes for ineffectual school reform efforts; sheds light on obstacles to avoid, problems to be corrected, and methods to embrace in order to overcome inertia and foster positive change. Uses "inertia theory" as a model.

>Trochim, W.M., Cabrera, D.A., Milstein, B., et al. Practical challenges in systems thinking and modeling in public health, *American Journal of Public Health* 96 (5) (2006), pp. 538-546.

Awareness of and support for systems thinking and modeling in the public health field are growing, yet there are many practical challenges to implementation. The authors sought to identify and describe these challenges from the perspectives of practicing public health professionals.

>Valente, T. (1995) *Network models of the diffusion of innovations.* Cresskill, NJ: Hampton

Reviews applications of social network analysis to health communication research. Describes how social networks can be used to understand transmission of new ideas. This is seen as particularly important for design of media-based education and advertising campaigns because it explains how information is passed from person to person within a social network.

>Valente, T. (1996) Social network thresholds in the diffusion of innovations. *Social Networks, 18, 69-89.*

Network analysis is a theory and set of techniques used to describe the relations among individuals or other units such as organizations, states or nations. Networks are most often used to represent who knows whom or who talks to whom within a community or organization and these relations influence behavior

Wandersman, A., Duffy, J., Flaspohler, P., Noonan, R., Lubell, K. Stillman, L., Blachman, M., Dunville, R. & Saul, J. (2008). Bridging the gap between prevention research and practice: the interactive systems framework for dissemination and implementation. *American Journal of Community Psychology,* 41, 171-181.
http://www.springerlink.com/content/j250h72558v465p3/fulltext.html

Abstract: If we keep on doing what we have been doing, we are going to keep on getting what we have been getting. Concerns about the gap between science and practice are longstanding. There is a need for new approaches to supplement the existing approaches of research to practice models and the evolving community-centered models for bridging this gap. In this article, we present the Interactive Systems Framework for Dissemination and Implementation (ISF) that uses aspects of research to practice models and of community-centered models. The framework presents three systems: the Prevention Synthesis and Translation System (which distills information about innovations and translates it into user-friendly formats); the Prevention Support System (which provides training, technical assistance or other support to users in the field); and the Prevention Delivery System (which implements innovations in the world of practice). The framework is intended to be used by different types of stakeholders (e.g., funders, practitioners, researchers) who can use it to see prevention not only through the lens of their own needs and perspectives, but also as a way to better understand the needs of other stakeholders and

systems. It provides a heuristic for understanding the needs, barriers, and resources of the different systems, as well as a structure for summarizing existing research and for illuminating priority areas for new research and action.

>Wejnert, B.(2002) Integrating models of diffusion of innovations: A conceptual framework. *Annual Review of Sociology*, 28, 297-326.

Provides a conceptual framework for integrating variables defined in diffusion research to explicate their influence on decisions to adopt an innovation. Framework groups variables into three components. The first includes characteristics of the innovation, within which two sets of variables are defined concerning public vs. private consequences and benefits vs costs of adoption. A second component involves the characteristics of innovators (actors) that influence the probability of adoption of an innovation. The third component involves characteristics of the environmental context that modulate diffusion via structural characteristics of the modern world.

A Few Other Related Center Documents and Publications

Systemic Change for School Improvement: Designing, Implementing, and Sustaining Prototypes and Going to Scale. Online at http://smhp.psych.ucla.edu/pdfdocs/systemic/systemicreport.pdf

Toward a Scale-Up Model for Replicating New Approaches to Schooling. Online at http://smhp.psych.ucla.edu/publications/06%20toward%20a%20scale%20up%20model%20for%20replicating%20new%20approaches.pdf

Scaling-Up Reforms Across A School District. Online at http://smhp.psych.ucla.edu/publications/21%20SCALING-UP%20REFORMS%20ACROSS%20A%20SCHOOL.pdf

Organization facilitators: A change agent for systemic school and community changes. http://smhp.psych.ucla.edu/pdfdocs/Report/orgfacrep.pdf

On Sustainability of Project Innovations as Systemic Change. Online at http://smhp.psych.ucla.edu/publications/45%20on%20sustainability%20of%20project%20innovations%20as%20systemic%20change.pdf

Systemic change for school improvement. Online at: http://smhp.psych.ucla.edu/publications/Systemic%20Change%20for%20school%20improvement.pdf

New Initiatives: Considerations Related to Planning, Implementing, Sustaining, and Going-to-Scale. Online at http://smhp.psych.ucla.edu/pdfdocs/briefs/sustainbrief.pdf

Sustaining School and Community Efforts to Enhance Outcomes for Children and Youth: A Guidebook and Tool Kit. Online at http://smhp.psych.ucla.edu/pdfdocs/sustaining.pdf

Getting From Here to There: A Guide book for The Enabling Component. Online at http://smhp.psych.ucla.edu/pdfdocs/enabling/gettingfromhere.pdf

The Center's Series of Information Resources on Enabling System Change

Diffusion of Innovations and Science-Based Practices to Address Barriers to Learning & Improve Schools

>Brief Overview of a Major Review by L.W. Green, et al. (2009) entitled: Diffusion Theory and Knowledge Dissemination, Utilization, and Integration in Public Health
>Brief Overview of Major Concepts from E.M. Rogers' Work on Diffusion of Innovations
>Brief Overview of Malcolm Gladwell's Concept of the Tipping Point
>Some Key Terms Related to Enabling System Change
>Systemic Change for School Improvement
>Change Agent Mechanisms for School Improvement: Infrastructure not Individuals
>System Change and Empirically-Supported Practices: The Implementation Problem
>Policy Implications for Advancing Systemic Change for School Improvement
>Some Key References Related to Enabling System Change
>Dissemination Focused on Diffusion: Some Guidelines
>Diffusion: In Pursuit of Action
>Excerpts from Child Trends' series of Research-to Results Briefs on Adopting, Implementing, Sustaining, and Replicating Evidence-Based Practices
>Making and Disseminating Recommendations is Not Sufficient
>Intro to Multi-Level Community Based Culturally Situated Interventions