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Transferring Implementation Facilitation Knowledge and Skills to Improve Healthcare Delivery Systems

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Transferring Implementation Facilitation Knowledge and Skills to Improve Healthcare Delivery Systems

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by

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Abstract

Evidence-based practices and programs can improve healthcare quality but many organizations lack the ability to implement and sustain them. Skilled implementation facilitators applying a range of interventions can enable healthcare systems to address these challenges. However, we have limited knowledge about skills facilitators need and no studies examine how experts can transfer skills to others to build capacity for implementation efforts. The purpose of this study is to address these gaps.

For this qualitative descriptive study, I conducted content analysis of data previously collected from an expert and two novice facilitators to whom she was transferring skills for supporting implementation of evidence-based programs mandated by VA policy. This study explores what knowledge and skills the expert transferred and how she transferred them. Because no studies have explored the latter, a literature review on other methods that foster learning through social interactions informed the analysis.

The findings confirm that implementation facilitators need a range of complex knowledge and skills. I identified, operationalized and categorized these into communication skills and five overarching skillsets for (a) building relationships and creating a supportive environment, (b) changing the system of care and the structure and processes that support it, (c) transferring knowledge and skills and creating infrastructure support for ongoing learning, (d) planning and leading change efforts, and (e) assessing people, processes and outcomes and creating infrastructure for program monitoring. The findings also reveal that the expert utilized a wide variety of techniques and processes for transferring those skills, including active and participatory methods, cognitive, psychosocial, self-learning and structural learning supports, and interactive relational processes. Additionally, the expert continuously monitored and

assessed facilitators she was training and adapted both the content and process to learner characteristics and pre-existing skills, as well as the organizational context.

The findings address gaps in the current literature and can inform the design, creation, and administration of facilitation programs by policy designers or managers, experts' transfer of implementation facilitation knowledge and skills, and materials for supporting these efforts. Application of findings has the potential to improve implementation of evidence-based programs in healthcare delivery systems.

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Finally, I especially want to thank my family, my son, Michael (always an advocate for balance in life), my daughter-in-law, Monica, and grandson, Kaleb, for sharing their lives with me, believing in me, and cheering me on.

Dedication

This work is dedicated to my son, Michael, and my daughter, Christy, who I miss. Their lives and love have brought me great joy. Children are truly a gift from the Lord.

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List of Abbreviations

AHRQ	Agency for Healthcare Research and Quality
Blended Facilitation	Blended Facilitation to Enhance PCMH Program Implementation
EBPP(s)	Evidence-Based Practice(s) and Program(s)
EEF	External Expert Facilitator
IF	Implementation Facilitation
IRF(s)	Internal Regional Facilitator(s)
LPP	Legitimate Peripheral Participation
PARIHS	Promoting Action on Research Implementation in Health Services
PCEP	Primary Care Extension Program
PC-MHI	Primary Care-Mental Health Integration
QI	Quality Improvement
U.S.	United States
VA	Department of Veterans Affairs
VAMC	VA Medical Center
VHA	Veterans Health Administration

CHAPTER 1: INTRODUCTION

Scholars have long agreed that the implementation of evidence-based practices and programs (EBPPs) will improve the quality of healthcare (Aarons et al., 2011; Greenhalgh, Robert, Bate et al., 2004; Hanney et al., 2003). However, implementing and sustaining EBPPs is challenging (Durlak & DuPre, 2008; Fearing et al., 2013; Greenhalgh, Robert, Macfarlane et al., 2004). To successfully implement innovations, organizations need to involve stakeholders from multiple organizational levels (Ferlie & Shortell, 2001; Fixsen et al., 2005; Greenhalgh, Robert, Macfarlane et al., 2004), apply a variety of implementation strategies tailored to local context, leverage existing facilitators, and address barriers to change (Flottorp et al., 2013; Grol et al., 2007; Krause et al., 2014; Solberg et al., 2000). Unfortunately, not all organizations have the capacity for facilitating change on their own; many lack infrastructure support, necessary resources, or knowledge and understanding of change processes (Damanpour, 1992; Fearing et al., 2013; Greenhalgh, Robert, Macfarlane et al., 2004; Grumbach et al., 2012). Facilitation has been widely utilized as an implementation strategy to help such healthcare settings successfully implement EBPPs, prevention services, and complex models of care delivery, particularly in primary care settings (Baskerville et al., 2012; Nagykaldi et al., 2005; Stetler et al., 2006).

This chapter will briefly describe the widespread use of facilitation as an implementation strategy and its value for supporting successful EBPP implementation, as well as provide definitions and descriptions of implementation facilitation (IF) components and activities. Although scholars agree that facilitators need training to be effective, I describe several gaps in our understanding of those processes. I then provide the purpose of this dissertation study and the specific research questions I will address followed by a description of the study's context and

an overview of its methods. The chapter concludes with a discussion of the study's significance and an overview of the chapters that follow.

Background

Historically, scholars trace the development of implementation facilitation in healthcare settings to the Oxford Heart Attack and Stroke Project in England in 1981 (Carroll et al., 1994; Liddy et al., 2013). In that project, Elaine Fullard, a nurse, piloted the facilitator role, successfully supporting primary care practices' implementation of health promotion activities. Based on the success of this project, health authorities and health services authorities across England adopted the Oxford facilitator model and the use of facilitation spread to other countries including Australia, Canada, the Netherlands and the United States (U.S.) (Carroll et al., 1994; Liddy et al., 2013). Today, various large scale clinical and policy initiatives in the United Kingdom and the U.S. include facilitation as a core component of their implementation plans (Stewart et al., 2010; Waterman et al., 2015). Based in part on the success of implementation facilitation (IF) in these initiatives as well as in practice-based research networks, scholars called for creation of a Primary Care Extension Service, similar to the U.S. Department of Agriculture's Cooperative Extension Service, to support implementation of innovations in primary care (Grumbach & Mold, 2009). The Patient Protection and Affordable Care Act of 2010 authorized the creation of a national Primary Care Extension Program (PCEP), charging the Agency for Healthcare Research and Quality (AHRQ) with its implementation. The PCEP was to include Health Extension Agents to facilitate and provide assistance to primary care practices to help them improve the quality of care. Although a national PCEP was not funded, AHRQ used existing funds to issue grants for PCEP programs in four states (Grumbach et al., 2012). Other federally funded programs have also utilized IF services, including Area Health Education

Centers, as have state governments and Medicaid program waivers (Taylor et al., 2013). A number of philanthropic organizations have incorporated IF services into their initiatives, e.g., the Commonwealth Fund's Safety Net Medical Home Initiative (Johnson et al., 2014) and the Robert Wood Johnson Foundation's Improving Performance in Practice program (Bricker et al., 2010; Greenhalgh, Robert, Bate et al., 2004; Margolis et al., 2010). Finally, implementation researchers have applied and tested various IF approaches to support uptake of EBPPs (Bidassie et al., 2015; Curran et al., 2008; Kirchner, Ritchie et al., 2014).

Some scholars suggest that facilitation is a necessary component of successful implementation. The newly revised Promoting Action on Research Implementation in Health Services (PARIHS) framework posits that successful implementation is the result of facilitation of an innovation with the targets and within the organizational context of the implementation effort (Harvey & Kitson, 2015). Framework developers conceptualize facilitation as the active ingredient in successful implementation. A systematic review of literature across four sectors, health care, social care, education and criminal justice identified five key mechanisms that underpin different approaches to implementing EBPPs (Walter et al., 2005). One of the mechanisms was facilitation, defined as "enabling the use of research through technical, financial, organizational and emotional support" (p. 341). Interestingly, the other four mechanisms, dissemination, interaction, social influence, and feedback and rewards to encourage research use, are also mechanisms that underpin the activities that facilitators perform.

Although there are multiple definitions of facilitation (Berta et al., 2015), the most frequently cited ones emphasize that facilitation makes the process of implementation easier for implementers (Dogherty et al., 2010). Stetler, et al., (2006) define facilitation as "a deliberate process of interactive problem solving and support that occurs in the context of a recognized

need for improvement and a supportive interpersonal relationship" (p. 1). Baskerville, Liddy, and Hogg (2012), based on a review of the literature, define facilitation as "a multifaceted approach that involves skilled individuals who enable others, through a range of intervention components and approaches, to address the challenges in implementing evidence-based care guidelines" (p. 63).

In attempting to clarify the concept of facilitation, scholars have concluded that facilitation is both a role and a process (Dogherty et al., 2010; Harvey et al., 2002). As a role, facilitation varies on several dimensions. Facilitators can be internal or external to an organization, they can be professional or non-professional, they can utilize a wide variety of methods and other implementation strategies, described further below, and a range of approaches from doing specific tasks to enabling individuals and groups to conduct implementation activities on their own. Essentially, a broad range of facilitator roles is possible (Harvey et al., 2002; Liddy et al., 2013).

Facilitators apply a variety of methods and techniques depending on the purpose of facilitation, the innovation being implemented, the skills of the facilitator(s), and the organizational context of the implementation effort. Although some scholars view facilitation as a discrete implementation strategy (Powell et al., 2015; Stetler et al., 2006), many suggest that facilitators' activities include multiple other implementation interventions (Bidassie et al., 2015; Dogherty et al., 2010; Stetler et al., 2006). Attempts to understand exactly what facilitators do have been challenging for several reasons. First, there has been a lack of common terminology for implementation interventions generally (Powell et al., 2015; Powell et al., 2012; Proctor et al., 2013). Although recently implementation scholars have begun to address this issue (Michie et al., 2009; Powell et al., 2015; Powell et al., 2012), lack of common terminology about

implementation interventions generally has contributed to the lack of clarity about the activities implementation facilitators perform. Secondly, some study investigators have poorly described their IF interventions and others tend to describe what they do in a narrative style that makes comparisons across studies difficult. Harvey and Kitson (2015) have concluded that despite all of the interest in implementation facilitation, there are still no clear or definitive descriptions of what it is (p. 71).

In the past five years, scholars have been working on the development of a taxonomy of facilitation activities to implement EBPPs in the nursing context (Dogherty et al., 2010; Dogherty et al., 2012; Dogherty et al., 2014; Elnitsky et al., 2015). Investigators developed the original taxonomy based on their systematic review of literature to clarify the concept of facilitation (Dogherty et al., 2010). They identified five unique elements of facilitation: increasing awareness of the need for change, leadership and project management, relationship-building and communication, importance of the local context, and ongoing monitoring and evaluation. In creating the taxonomy of facilitation activities, investigators organized information into specific stages of the implementation process: planning for change, leading and managing change, monitoring progress and ongoing implementation, and evaluating change. Many of the activities listed within these stages are similar to implementation strategies in a recent refined compilation (Powell et al., 2015). Several studies added facilitation activities to the original facilitation taxonomy (Dogherty et al., 2012; Dogherty et al., 2014; Elnitsky et al., 2015) resulting in a total of fifty-eight documented facilitation interventions.

Clearly facilitation is a multi-faceted and complex implementation strategy. Facilitators need to have knowledge of and skills to apply a wide variety of techniques and processes (Bidassie et al., 2015; Harvey et al., 2011; Stetler et al., 2006). They need to be able to assess

targets of the implementation effort, characteristics of the innovation, and the status and needs of the organizational context as well as implementation progress and barriers to implementation (Dogherty et al., 2010). Based on these assessments, facilitators need to be able to select appropriate implementation strategies and tailor them to the needs and resources of the healthcare setting (Harvey et al., 2011). Because implementation processes are dynamic and change over time, facilitators need the skills to respond to those changes as well as changes in the local and broader organizational environments (Bidassie et al., 2015; Thompson et al., 2006). They also need to be able to moderate the intensity of their interventions as not all settings need intensive facilitation (Nutting et al., 2010); and at times, even limited facilitation can significantly improve delivery of care (Mold et al., 2014; Parchman et al., 2013). Facilitators also require the skills to determine at what level of the organization they need to intervene (Stetler et al., 2006) as well as when they need to intervene with individuals, teams, or the organization (Harvey et al., 2011). Thus, facilitators need training and support in order to help healthcare systems successfully implement EBPPs (Greenhalgh, Robert, Macfarlane et al., 2004; Grumbach et al., 2012; Phillips et al., 2013; Waterman et al., 2015).

Problem Statement

There are, however, several gaps in our understanding of how new facilitators are trained. First, few studies have explored what knowledge and skills facilitators need. Scholars agree that facilitators need a wide range of knowledge and skills (Dogherty et al., 2013; Harvey et al., 2011; Rycroft-Malone, 2004) and have some consensus that they need communication, interpersonal, team management, problem identification and solving, and relationship building skills (Dogherty et al., 2012; Elnitsky et al., 2015; Stetler et al., 2006). Studies identifying specific knowledge and skills utilized retrospective focus group methods with individuals who

have been performing facilitation roles over a period of time (Dogherty et al., 2012; Elnitsky et al., 2015). No studies have documented facilitation knowledge and skills applied during the conduct of particular implementation processes. Second, although there are publicly available facilitation "how-to" manuals and resources (Grumbach et al., 2012), facilitation skills may be far too complex to transfer through written materials or a combination of these materials and didactic instruction. No studies have investigated how experts in implementation facilitation can help change agents inside organizations become facilitators of change (Dogherty et al., 2012; Harvey & Kitson, 2015; Harvey et al., 2002).

Study Purpose

Thus, the purpose of this study was to explore how IF experts can help healthcare system change agents who are IF novices acquire the knowledge and skills needed to facilitate implementation of evidence-based practices and programs. In order to address this purpose, I needed a more granular understanding of IF knowledge and skills than was currently available in facilitation literature. Additionally, because no studies had explored how novice facilitators are trained and because facilitation is a complex process, literature about how experts help individuals learn other complex skills, such as the practices of medicine, nursing and teaching, as well as career development (Fielden et al., 2009; Lankau & Scandura, 2002; Sambunjak et al., 2010; Schwille, 2008; Taherian & Shekarchian, 2008), informed this study. In reviewing literature in these areas, I found that relationships between experts and novices who are their protégés have common characteristics. First, in addition to knowledge about a domain that can be communicated in a classroom or conference setting, experts help their protégés learn knowledge and behaviors that cannot be so easily communicated (Anderson & Willson, 2009; Chao, 2007; Collins et al., 1991; Pintrich, 2002). Second, experts generally help their protégés

learn complex skills within the context in which they will be practiced or a close approximation of it (Austin, 2009; Cope et al., 2000). Third, experts use a variety of mechanisms, including didactics, role modeling, and coaching (Chao, 2007; Collins et al., 1991; Eby & Allen, 2007; Lankau & Scandura, 2007), to help their protégés learn new knowledge and skills. Finally, experts tailor what they help their protégés learn to the purpose and context of their efforts, as well as the characteristics and needs of protégés (Ragins & Kram, 2007a; Schwille, 2008).

Research Questions

The following research questions guided this dissertation study. The first question focuses on what IF experts can help change agents learn; the second and third questions focus on how IF experts can help internal change agents learn IF knowledge and skills.

1) What implementation facilitation knowledge and skills can experts help internal change agents learn?
2) What techniques and processes can experts use to help internal change agents learn implementation facilitation knowledge and skills?
3) How do experts tailor their efforts to the learning needs and characteristics of individual change agents and the characteristics of the organizational contexts within which they are facilitating change?

Study Context

To address these research questions, I utilized data we collected for a Department of Veterans Affairs (VA) funded research project, "Blended Facilitation to Enhance PCMH Program Implementation" (Blended Facilitation). This project evaluated a facilitation intervention to enhance implementation of a VA policy to integrate mental health services into primary care settings. VA's Veterans Health Administration (VHA) is the largest integrated

health care system in the United States and is a leader in the development and promotion of EBPPs (Hynes et al., 2004; Perlin et al., 2004; Solberg, 2009; Stetler et al., 2008), including the integration of mental health services in primary care settings (Butler et al., 2008; Collins et al., 2010). VHA's 2004 Mental Health Strategic Plan (Department of Veterans Affairs, 2004) signaled the intent of VA decision-makers to make implementation of the latter a priority. Over the next five years, they selected policy instruments, which are the means or tools for accomplishing policy objectives (May, 2012, p. 281), to support system-wide implementation of a Primary Care-Mental Health Integration (PC-MHI) initiative. Policy instruments included a mandate, funding for staff in demonstration project sites, establishment of a national program office to provide education, consultation, support materials and technical assistance, and creation of an independent evaluation program office to monitor implementation progress and inform additional PC-MHI policy (Pomerantz et al., 2014; Post et al., 2010). Policy scholars acknowledge that well-designed policies are not sufficient to insure their implementation (May, 2012).

Thus, to address challenges to implementing PC-MHI programs and support policy implementation, the Blended Facilitation project tested an intensive facilitation strategy that consisted of external and internal facilitation incorporating the application of multiple evidence-based implementation strategies tailored to site needs and resources, a structured implementation process, and the transfer of evidence-informed IF knowledge and skills (Kirchner et al., 2010; Kirchner, Ritchie et al., 2014). The external facilitator was a national expert in evidence-based Primary Care – Mental Health Integration (PC-MHI) care models and implementation science. Typically, internal facilitators are local personnel (Stetler et al., 2006). However, strategy developers had intentionally designed a multi-level approach to implementing PC-MHI at

multiple facilities within a VA regional network (Kirchner et al., 2010). The internal facilitator was thus a regional level employee who was familiar with facility-level organizational structures and climates and clinical processes and had dedicated time for facilitation activities but no training or experience with using evidence-based implementation strategies. A key component of the IF strategy was the external expert facilitator's (EEF's) training and mentoring of the internal regional facilitators (IRFs) to transfer implementation facilitation knowledge and skills to them. Facilitators applied the facilitation strategy in eight primary care clinics in two VA regional networks (four clinics in each network) that likely would have been unable to implement PC-MHI programs without facilitation.

Overview of Methods

Although the Blended Facilitation project focused on evaluating the effectiveness of the facilitation strategy for improving PC-MHI implementation and assessing the facilitation processes, data collected also documented the EEF's efforts to help IRFs learn implementation facilitation knowledge and skills. For the current qualitative descriptive study, I utilized case study methodology and content analysis of data collected from the EEF and IRFs over a 27-month period. Data included meeting notes, extensive notes documenting debriefing interviews with facilitators, and verbatim transcripts of semi-structured qualitative interviews with them. Data analysis primarily focused on the EEF's descriptions of her efforts to transfer IF knowledge and skills. However, data collected from IRFs provided information about the context within which EEF and IRF interactions occurred as well as the salience of the EEF's efforts for each IRF. I conducted the data analysis in phases utilizing a mix of inductive and deductive methods informed by a review of literature.

Significance

This study addresses a number of important gaps in the implementation science literature. First, implementation research in healthcare grew out of the evidence-based medicine movement and focuses on the study of interventions and strategies at all levels of healthcare systems (individuals, groups or teams, organizations and larger systems or the environment) that support the movement of evidence-based practices and programs into routine care (Dearing & Kee, 2012). The original Promoting Action on Research Implementation in Health Service (PARIHS) framework informed the design of the Blended Facilitation project that provided the source data for this dissertation study. The PARIHS framework posited that successful implementation is a function of the dynamic interaction between evidence, context and facilitation (Kitson et al., 2008). Although facilitation strategies have been used to support successful implementation in many research studies (Baskerville et al., 2012; Bidassie et al., 2015; Crabtree et al., 2011; Stetler et al., 2006), scholars agree that there is little clarity about how facilitation skills are developed and refined (Harvey et al., 2002; Nagykaldi et al., 2005). This study addresses a gap in the literature, how an expert in facilitating implementation of EBPPs can help others to learn such skills. No studies have yet addressed this gap (Dogherty et al., 2010; Harvey et al., 2002; Stetler et al., 2006).

Second, to ensure that healthcare organizations utilize evidence-based implementation strategies, particularly when implementing EBPPs, it is critical to understand how to help healthcare system change agents learn IF skills. The development and growth of implementation science has been a response to an acknowledgement that there is a significant gap between evidence and its implementation into clinical practice (Colditz, 2012). Some estimates suggest that there is a delay of seventeen years from research to implementation for the approximately

fourteen percent of health innovations that are actually implemented (Balas & Boren, 2000). As implementation scientists, we need to work to prevent a similar gap between implementation science knowledge and its routine use in healthcare organizations. According to Brownson, Royer, Ewing, and McBride (2006), "It is a fundamental obligation of a scientist not only to discover new knowledge but also to ensure that discoveries are applied to improve health and well-being" (p. 171). Findings from this study may begin to inform and stimulate research about how implementation scientists can help practitioners and decision-makers learn about and use evidence-based implementation strategies such as facilitation.

Third, because we conducted the Blended Facilitation study within the context of a system-wide initiative to implement an evidence-informed policy directive in the Department of Veterans Affairs, both the Blended Facilitation project and this dissertation study will contribute to our understanding of how implementation research can inform policy processes. There is a growing body of literature about how research generally can and should inform policy, though this literature largely concerns research influence on policy options that decision-makers consider and their adoption of particular options (Ferlie & Shortell, 2001; Haynes & Lomas, 1995; Lavis et al., 2002; Macintyre et al., 2001; Martens & Roos, 2005). The study of how to improve implementation of evidence-informed policies has received little attention (Dodson & Brownson, 2012). Both implementation science and policy implementation, two independent literature streams that have grown out of different fields with little communication between them, support the challenges of implementing policy (Nilsen et al., 2013). Public policy literature suggests that even if policy is informed by evidence, multiple factors can hinder its implementation including ambiguity of the policy target, goals, and means for achieving them, the complexity of the problem the policy addresses, as well as the policy implementation context,

local implementers who have a significant amount of discretion over the way they do their jobs, and lack of resources needed to support policy implementation (Chun & Rainey, 2005; deLeon & deLeon, 2002; Dobbin & Sutton, 1998; Hill, 2003; Kreuter et al., 2004; Matland, 1995; Meyers et al., 2001; Sandfort, 2000; Vinzant & Crothers, 1998). Policy directives, such as the requirements of VA's Uniform Mental Health Services Handbook, are unlikely to change practice unless these barriers to implementation are addressed (Watt et al., 2005). In the Blended Facilitation project, the pairing of an implementation science expert with a regional level change agent for the purpose of transferring IF expertise within the context of a policy implementation process was a novel strategy that used top-down and bottom up interventions to facilitate implementation and address barriers. The current study of the transfer process contributes new knowledge about how implementation experts can embed IF knowledge and skills in organizations to improve policy implementation.

Findings from this study will also have a number of practical applications. External expert facilitation has successfully addressed barriers to implementing practices and programs in research studies (Stetler et al., 2006; Sullivan et al., 2005). Understanding how IF experts can help health care system change agents learn such skills has the potential to provide healthcare organizations with tools for increasing their ability to implement both evidence-based policy and practice. VA leaders recognized this potential and requested that study facilitators provide consultation and training to national VA staff to help them learn how to facilitate implementation of other evidence based practices and programs mandated by the VA's Uniform Mental Health Services Handbook. In response, we developed an implementation facilitation training manual and materials based on facilitators' experiences (Kirchner et al., 2013; Ritchie et al., 2014). We plan to incorporate findings from this dissertation study into that manual and use it to train other

novice VA and non-VA facilitators in the future. Findings could also inform other implementation facilitation training efforts (Johnson et al., 2014; Kotecha et al., 2015; Primary Care Practice Facilitation Curriculum, 2015).

Finally, external facilitation provided in funded research projects to help implement clinical innovations (Kilbourne et al., 2014; Noël et al., 2014; Stetler et al., 2006; Waterman et al., 2015) ends at the completion of these studies. We have little knowledge about whether or not organizations were able to sustain innovations in its absence. Findings from this study can inform future implementation studies using external facilitation and provide investigators with tools for planning how to help internal change agents develop skills needed to implement and sustain not only current clinical innovations but also any new evidence-based practices and programs in the future.

Limitations

There were several limitations to this study. First, the small number of facilitators (one expert and two novice facilitators) and the focus on implementation of a particular evidence-based program, PC-MHI, may limit the generalizability of study findings to other facilitation training processes. By design, this study utilized data collected for the evaluation of an IF intervention conducted by these facilitators. A larger study and/or one implementing a different innovation might reveal additional facilitation skills and transfer processes.

Second, the facilitation strategy applied in the Blended Facilitation project was an intensive strategy, informed by implementation science and designed to address all barriers that facilitators encountered and maximize the potential for implementation success. There are many approaches to implementation facilitation. Facilitators in this study may have needed a broader range of skills than facilitators who are using a more limited approach to supporting

implementation. There are likely both core skills that all facilitators need as well as skills that they need for particular implementation efforts. Identifying skills that are core to IF was beyond the scope of this study.

Third, we conducted debriefing interviews to document facilitators' efforts on an approximately monthly basis. Facilitators provided us with summaries of their activities. Given the intensity of their efforts at times, they may have forgotten some of the details. Finally, this study intentionally focused on the EEF's self-report of the skills transfer process. Although we asked IRFs on two occasions to provide feedback about the skills they had learned, we may have obtained more information from them if we had queried them about the skills they were learning during monthly debriefing interviews.

Despite these limitations, this study will make a significant contribution to implementation science literature related to the transfer of IF knowledge and skills generally and specifically within the context of enhancing wide-spread policy implementation. As the first study to document the skills transfer process as it occurred, its findings can form future research as well as future training efforts.

Summary

This chapter provided the background and a brief overview of my dissertation study. Facilitation is a complex and multi-faceted intervention that can effectively support implementation of EBPPs. Facilitators need to learn a sophisticated range of knowledge and skills but few studies have explored the nature of these. No studies have explored how experts can transfer facilitation knowledge and skills to healthcare system change agents to support EBPP implementation. This study utilized data collected for a research project conducted within the context of a VA policy initiative to address these gaps. Because the expert facilitator was

transferring implementation science knowledge within this context, the study also addresses gaps in our understanding of how scientists can support the transfer of such knowledge to clinical settings.

Chapter Two will expand further on the activities facilitators perform and the knowledge and skills they need. I will also present a summary of publicly available facilitator training materials and processes. I will then discuss why didactic instruction alone is not sufficient to transfer IF knowledge and skills. Finally, I will explore literature related to how people learn other complex knowledge and skills.

CHAPTER 2: LITERATURE REVIEW

Processes of facilitation are utilized in diverse fields and disciplines, including management, education, community development, personal development, counseling, clinical supervision, and quality improvement. Literature from these fields may inform our understanding of facilitation processes generally. However, in this chapter I focus primarily on implementation facilitation, exploring current knowledge on why implementation facilitators need to be trained, what knowledge and skills they need to learn, and how an expert facilitator can help novice facilitators learn those skills. Because no research has been conducted on the specific methods or mechanisms expert facilitators use to help individuals new to facilitation learn such knowledge and skills, I explored several other sources of information to inform this study. One source was the publicly available information about the training of facilitators for large-scale initiatives to improve healthcare delivered in primary care settings. I also explored mentoring, coaching and apprenticeship literature because these are learning relationships, similar to the EEF's relationships with IRFs in the Blended Facilitation project, in which someone with greater expertise helps others learn new knowledge and skills. A content analysis of literature in these areas as well as related literature informed the study's research question about methods experts use to help individuals learn new knowledge and skills.

Why Implementation Facilitators Need Training

Determinants of Implementation Success

Implementing EBPPs, indeed any new innovations or programs, in healthcare systems is challenging. Scientists have been studying the determinants of implementation for many years, resulting in both evidence and theory on factors that affect adoption (Greenhalgh, Robert,

Macfarlane et al., 2004; Grol et al., 2013; Wensing et al., 2011). Determinants are factors that can enhance or impede implementation and are commonly called barriers and facilitators to change (Baker et al., 2015). To facilitate their identification in implementation efforts, scholars have developed a number of checklists and frameworks (Damschroder et al., 2009; Flottorp et al., 2013; Walter et al., 2003). Although it is beyond the scope of this study to explore the significant literature in this area, I next provide a very brief overview of determinants as context for exploring the literature on the complexity of and the knowledge and skills needed for implementation facilitation.

Based on an extensive review of empirical research, Greenhalgh et al. (2004) developed a conceptual model for considering determinants in healthcare delivery systems. Their review showed that characteristics of innovations, adopters, and the organizational context can influence implementation. Potential users are less likely to adopt an innovation when they perceive that the innovation lacks relative advantage, is incompatible with users' norms, values, and needs, is complex, and/or lacks benefits and adaptability. Characteristics of potential adopters, e.g., motivation, skills, values, goals, understanding of the innovation, and access to information, can also affect adoption and participation in implementation by individual healthcare system stakeholders. Additionally, multiple characteristics of the organizational context can hinder implementation including lack of leadership support, resources, receptivity, and capacity to implement or evaluate changes, as well as non-supportive organizational culture and climate (Greenhalgh, Robert, Macfarlane et al., 2004). Implementation scholars have built extensively on this work (Chaudoir et al., 2013; Squires et al., 2015).

More recently, Flottorp et al. (2013) developed a comprehensive list of determinants, based on a systematic review and synthesis of other frameworks and taxonomies, including

twelve other checklists, and a consensus process with implementation researchers. They created, but have not yet validated, the checklist for use in designing implementation interventions. The checklist includes seven domains (guideline factors, individual health professional factors, patient factors, professional interactions, incentives and resources, capacity for organizational domains, and social, political and legal factors), and fifty-seven determinants of practice. Not surprisingly, developers conclude that the checklist "may be quite challenging to use (p. 10). In addition to the large number of potential determinants, there are multiple methods implementers can use to identify them but no systematic processes for selecting the ones that are both important for a particular implementation initiative and practicable within the setting (Krause et al., 2014).

Implementation Strategies

Implementation strategies are the "methods or techniques used to enhance the adoption, implementation, and sustainability of a clinical practice or program" (Curran et al., 2012, p. 218) or the "'how to' component of changing healthcare practice" (Proctor et al., 2013, p. 1). It is generally assumed that implementation interventions or strategies tailored to address pre-identified determinants can improve innovation adoption; and evidence supports the potential for tailored interventions to improve practice (Baker et al., 2015). Given the large number of potential determinants, it is not surprising that there are many interventions and strategies or combinations of interventions (Curran et al., 2012) that can support the implementation process (Mazza et al., 2013; Powell et al., 2015; Walter et al., 2003). Following the recommendations of Proctor et al. (2013), I will use the term implementation strategy to refer to both interventions and combinations of interventions.

The Expert Recommendations for Implementing Change (ERIC) project (Waltz et al.,

2014), building on a previous review (Powell et al., 2012) and utilizing a rigorous consensus development process with experts in implementation science and clinical practice, compiled a list of seventy-three discrete implementation strategies with definitions for each (Powell et al., 2015). Investigators then conducted concept mapping sorting and rating activities with a similar panel of experts to group the strategies into nine categories and validate that strategies were conceptually distinct (Waltz et al., 2015). The categories included using evaluative and iterative strategies, providing interactive assistance, adapting and tailoring to context, developing stakeholder interrelationships, training and educating stakeholders, supporting clinicians, engaging consumers, utilizing financial strategies, and changing infrastructure. ERIC investigators do not claim that this compilation is complete; there well may be additional strategies not identified in this work (Powell et al., 2015). As discussed in Chapter 1, research conducted to develop a taxonomy of EBPP implementation facilitation activities in nursing identified fifty-eight facilitation interventions (Dogherty et al., 2010; Dogherty et al., 2012; Dogherty et al., 2014; Elnitsky et al., 2015). All of these studies highlight the fact that implementation facilitators, who frequently incorporate other implementation strategies into their efforts (Dogherty et al., 2010; Stetler et al., 2006), have a large number of implementation strategies and other facilitation activities from which to choose.

Facilitating Implementation Is Complex

The large number of potential determinants facilitators need to assess and the wide variety of implementation strategies available for their use are not the only factors that contribute to the complexity of facilitating implementation. Because change has to occur at all levels to improve quality of care across the health care system (Ferlie & Shortell, 2001; Weber & Joshi, 2000), facilitators often need to intervene across most, if not all levels. Facilitators also need to

tailor the selection of strategies to determinants they identify, choosing ones that will most likely be beneficial, a process for which there is little published guidance (Krause et al., 2014). With the appropriate knowledge and skills, facilitators can select strategies based on theory, evidence, and pragmatic rationale informed by their assessment of stakeholder and organizational needs (Proctor et al., 2013). After selecting particular strategies, facilitators often need to adapt them as well (Baskerville et al., 2012). Because some sites need more help or more frequent help than others at various times during the process, facilitators need to decide when particular strategies should be applied, how much of a strategy they need to apply, and how often they need to intervene. Facilitation strategies can be arbitrarily limited or as inclusive as resources allow. Facilitators also may need to adapt their approach along the continuum from "doing" to "enabling" (Harvey et al., 2002). In the Blended Facilitation project, we found that where on that continuum particular activities fell depended more on the context than the type of activity (Parker et al., 2014; Parker et al., 2016). Thus, facilitating implementation of EBPPs is a very complex process. Next I describe knowledge and skills facilitators need to address these complexities.

Facilitation Knowledge and Skills

Given the complexity of implementation facilitation described above, it is not surprising that facilitators need a diverse range of knowledge and skills that they can apply depending on the purpose and context of their efforts (Dogherty et al., 2013; Harvey et al., 2002; Rycroft-Malone, 2004; Stetler et al., 2006). Although many skills are mentioned, they are variably described in facilitation literature. In this section, I provide a list of these and information available about how they are operationalized. Similar to a literature review to develop a facilitator role synopsis (Dogherty et al., 2010), I found most of the skills in conceptual and

theoretical literature, project descriptions and reviews. Only a few studies sought to identify skills facilitators needed (Dogherty et al., 2012; Dogherty et al., 2013; Elnitsky et al., 2015) and these retrospectively elicited facilitators' descriptions of skills they had utilized.

Facilitators need a range of skills to relate to, interact with and lead individuals and groups of people. Skills most frequently mentioned in the facilitation literature include communication skills (Cross, 1996; Dogherty et al., 2012; Stetler et al., 2006), interpersonal skills (Dogherty et al., 2013; Harvey et al., 2002; Stetler et al., 2006), and group/team management skills (Cheater et al., 2005; Dogherty et al., 2013; Harvey et al., 2002). Facilitators additionally need knowledge and skills related to organizational change management (Grumbach et al., 2012) and EBP implementation (Dogherty et al., 2013; Ellis et al., 2005; Harvey et al., 2002), as well as general administrative and organizational skills (Dogherty et al., 2012; Dogherty et al., 2013). They may also need marketing (Dogherty et al., 2013; Harvey et al., 2002) and political skills (Elwyn et al., 2001; Harvey et al., 2002; Kirk & Broussine, 2000). See Table 1 for the list of skills mentioned in the literature and, when available, a description of how scholars operationalized these skills, as well as citations to their work. With few exceptions, as yet, no clear and consistent operationalization of these skills exists and no studies have documented IF skills as they are being utilized. In order to develop the skills they need, facilitators require training and support (Elnitsky et al., 2015; Greenhalgh, Robert, Bate et al., 2004). Next, I describe what we know about how facilitators learn the knowledge and skills they need.

Table 1. *Facilitation Skills and How They Are Operationalized*

Skills	How they are operationalized
Communication	▪ Presentation skills (Carroll et al., 1994) ▪ Good listening skills (Bidassie et al., 2015; Cross, 1996; McCormack & Garbett, 2003) ▪ Using open ended questions, asking reflexive questions, summarizing and checking understanding (Cross, 1996) ▪ Maintaining regular close contact, ensuring right people are informed, complex awareness (a kind of "communication sensitivity") on multiple levels, persuasiveness (Dogherty et al., 2012) ▪ Open to being contacted, friendly and outgoing (Stetler et al., 2006) ▪ Acquiring and processing information as well as being able to put arguments across (McCormack & Garbett, 2003)
Interpersonal	▪ Able to develop positive relationships (Stetler et al., 2006)
Team development and management	▪ Managing complex group dynamics, keeping team focused on task, maintaining momentum and team commitment (Cheater et al., 2005) ▪ Group dynamic and group leadership skills, making sure everyone is heard, assisting with shared decision-making and conflict resolution (Dogherty et al., 2012) ▪ Negotiation (Dogherty et al., 2012; Nzinga, Ntoburi et al., 2009) ▪ Mediation (Dogherty et al., 2013) ▪ Helping to set goals (Grumbach et al., 2012; Nzinga, Ntoburi et al., 2009)
Political skills	▪ Political awareness of power relations and organizational decision-making processes (Kirk & Broussine, 2000)
Networking	Not operationalized
Problem identification and solving	▪ Characterizing and defining problems, defining barriers to good practice (Nzinga, Ntoburi et al., 2009)
Thinking and planning	▪ Strategizing (Elnitsky et al., 2015) ▪ Decision-making skills (McCormack & Garbett, 2003)
Education	▪ Educate leaders about models of best practice; provide training to plan and implement innovations (Grumbach et al., 2012)
Marketing	Not operationalized
Helping others learn	▪ Mentoring, teaching (Dogherty et al., 2013; Elnitsky et al., 2015), and coaching (Dogherty et al., 2013) ▪ Role modeling to show how this is done (Elnitsky et al., 2015) ▪ Supporting individual, team and organizational development and learning (Harvey et al., 2011)
Assessment	▪ Diagnostic skills (Harvey et al., 2011; Seers et al., 2012) ▪ Assessing context (Ellis et al., 2005; Harvey et al., 2011; Seers et al., 2012; Stetler et al., 2006) ▪ Assessing needs of individuals and teams (Harvey et al., 2011; Seers et al., 2012) ▪ Assessing organizational culture (McCormack & Garbett, 2003) ▪ Assessing implementation progress (Elnitsky et al., 2015; Grumbach et al., 2012)

Table 1. *Facilitation Skills and How They Are Operationalized* (Cont.)

Skills	How they are operationalized
Managing change	▪ Knowledge of change management (Elnitsky et al., 2015) ▪ Knowledge and skills in the science of improvement, fundamental processes of practice involvement and organizational change, i.e., the basics of PDSA cycles for quality improvement (QI) (Grumbach et al., 2012) ▪ Knowledge of QI methods (Taylor et al., 2013); rapid cycle QI (Nagykaldi et al., 2005),
Knowledge of EBPP and guideline implementation	▪ How to locate sources of evidence, critically appraise literature, conduct data collection (Dogherty et al., 2013; Elnitsky et al., 2015) ▪ Program planning and evaluation (Elnitsky et al., 2015; Harvey et al., 2011) ▪ Program implementation, development (Elnitsky et al., 2015)
Customizing to local context	Not operationalized
Stakeholder engagement	▪ Ability to engender trust and engage/involve individuals in the change process (Dogherty et al., 2013) ▪ Understanding stakeholder perspectives (Elnitsky et al., 2015) ▪ Overcoming resistance to change (Harvey et al., 2011)
Building capacity for and using data	▪ Fostering a culture of QI that includes use of performance data, creating capacity and expertise for process and outcome measurement, gathering data from performance reports, audits and/or outside sources and sharing data (Grumbach et al., 2012) ▪ Expertise in acquiring and using data to drive improvement (Taylor et al., 2013)
Administrative and project management	▪ Being organized and prepared, particularly for meetings (Dogherty et al., 2012)
Leadership	▪ Empowering leadership style (Elnitsky et al., 2015)
Technical Assistance	▪ Linking practices with QI tools (Grumbach et al., 2012)
Providing support and encouragement	Not operationalized

Facilitation Training

Facilitation literature has focused on clarifying the concept of facilitation, its effectiveness as an implementation strategy, activities facilitators perform, and more recently, its theoretical underpinnings (Berta et al., 2015; Harvey & Kitson, 2015). Despite this growing body of literature, little has been published about how facilitators are trained (Johnson et al., 2014; Kotecha et al., 2015) and/or how they develop facilitation skills (Harvey et al., 2002). In some cases, expert facilitators provide project-specific training tailored to the needs of the

project although there is little information about the training techniques and processes (Dogherty et al., 2010; Nzinga, Ntoburi et al., 2009; Stetler et al., 2006). Other facilitators may have developed their skills through experiential learning and by trial and error (Harvey et al., 2002).

However, facilitation has been widely used in large-scale initiatives and practice-based research networks to improve the quality of healthcare in PC settings. Experts in these groups have developed training materials, resources and processes to build capacity and ensure consistency of facilitation interventions across settings. Information about these efforts and some of the materials are publicly available. (See Appendix B for examples of training curricula and resources.) Below I describe some of the methods experts use to train new facilitators. These initiatives vary in what they call facilitation change agents (e.g., practice facilitators and practice coaches) but much of their work focuses on improving primary care delivery in small to medium sized clinics that lack resources and capacity for change efforts.

As previously discussed in Chapter 1, the Patient Protection and Affordable Care Act of 2010 authorized the creation of a national Primary Care Extension Program, charging the Agency for Healthcare Research and Quality (AHRQ) with its implementation. AHRQ and the L.A. Net Community Resource Network, a Practice-Based Research Network, conducted a consensus meeting of experts from the U.S. and Canada in 2010 to advance knowledge about practice coaching (also called practice facilitation) and identify questions that still needed to be addressed (Knox, 2010). One of these questions was, what is the best way to support and train facilitators? Experts agreed that facilitators need specialized training that is tailored to their backgrounds and prior experiences. In addition to introductory training, experts thought that new facilitators need regular supervision, training, and meetings with other facilitators through support groups and learning collaboratives. They also believed that supervisors should be

competent in and utilize empowerment strategies, both to support facilitators and model these approaches for them.

A review of publicly available facilitation training materials describing training programs, processes, and resources revealed a number of training venues, methods and techniques. Many formal programs initially provide intensive in-person training, including didactics (Kirchner et al., 2013; Kotecha et al., 2015; Nzinga, Mbindyo et al., 2009). Some provide workshops either initially or in addition to initial training (Kotecha et al., 2015; Liddy et al., 2013) or provide co-training with practices (Knox et al., 2011). In some cases, experts provide training through webinars (Lefebvre et al., 2014) and web-based meetings (University of California San Francisco/CareOregon, 2016).

New facilitators may receive short, time-limited (Nagykaldi et al., 2006) or ongoing training, which can include supervision and mentoring (HealthTeamWorks, 2016; Kotecha et al., 2015). Regardless of venue, experts may use experiential and applied approaches, including case-based strategies (Knox et al., 2011) and interactive role plays (University of California San Francisco/CareOregon, 2016) to help novices learn. They may also support novices' learning using an observation room, bug-in-the-ear strategies, feedback on audio-recorded encounters, or shadowing experiences with other, more experienced facilitators (Knox et al., 2011). Novice facilitators may, either on their own or in conjunction with input from facilitation experts, study publicly available training modules and materials (Johnson et al., 2014; Knox & Brach, 2013; Kotecha et al., 2015).

One leading primary care practice facilitation program used some particularly innovative methods for training new facilitators (Lefebvre et al., 2014). They initially, and on an annual basis, asked novices to complete a self-assessment of their level of competency in key areas,

based on four levels: a) they knew what something was and could describe it to stakeholders, b) they could explain what it was and refer stakeholders to resources for more information, c) they could apply it in their work with stakeholders, and d) they could teach it and facilitate stakeholder utilization. These assessments were then used to design a training program tailored to their needs. The facilitation program also provided continuous trainings and developed a web-based knowledge base, with the help of a librarian, who took advantage of a practice facilitation listserv to catalog posts on a secure wiki. Although these publicly available materials provide us with some of the methods that experts are using to train novice facilitators, they contain little detail about specific techniques experts use during their interactions with novices to foster learning and skill building. Next, I explore why didactic instruction is not the only method experts utilize to facilitate learning.

Didactic Instruction Is Not Sufficient

The focus of this study is on how implementation facilitation experts can help healthcare system change agents, new to IF, learn these complex skills and apply them with proficiency. Didactic instruction, even with a detailed how-to manual, in a classroom or conference setting alone is not sufficient for this task because of the type of knowledge and skills that need to be learned, the challenges in applying newly learned behavior of this type, and the need to conduct this process in the context within which new skills will be applied.

Although there is no definitive taxonomy of knowledge types (de Jong & Ferguson-Hessler, 1996), one categorization that seems particularly relevant for this study is the distinction between explicit and tacit knowledge (Anderson & Willson, 2009; Collins, 2010; Lam, 2000). Explicit knowledge can be codified and written down. We can use words and symbols to express and document explicit knowledge in a formal way and didactic instruction may be a

useful, though not necessarily sufficient, mechanism for helping others to learn this type of knowledge (Collins et al., 1991). Tacit knowledge takes the form of beliefs, understandings, skills and practices and has sometimes been called "know-how" (Anderson & Willson, 2009). Some tacit knowledge can be formalized and communicated verbally but it requires the knowledgeable persons to shift their attention from what they are doing to focus on describing what they are doing (Collins, 2010). Tacit knowledge can also be communicated non-verbally. Thus, tacit knowledge is generally acquired through experience (Case et al., 2000), observing and working with someone who has this knowledge, and/or other mechanisms described below. Complex skills such as the practice of medicine, nursing and teaching, include both explicit and tacit knowledge. To help others develop appropriate skills, experts in these areas must communicate tacit knowledge of the particular domain, how and when to apply this knowledge, and how to seek out new knowledge as it is needed. Classroom instruction and/or conference presentations are not sufficient for helping others learn new complex skills that include tacit dimensions (Collins et al., 1991; Lam, 2000).

Additionally, Fixsen, Naoom, Blasé, Friedman, and Wallace (2005) suggest that applying new complex knowledge and skills is challenging because newly learned behavior is crude compared to that of an expert, is fragile in the face of the reactions of others, and incomplete when applied in the setting in which it will be used. To address these challenges so that they can perform these behaviors proficiently, novices need the help of an expert to practice the behaviors/skills within the setting in which they will use them, to face the reactions of others, and to integrate newly learned knowledge and skills with their own attitudes and beliefs, the program being implemented and the organizational context.

Situated learning theory (Lave & Wenger, 1991) supports these recommendations and focuses on the relationship between learning and the social relationships in which it occurs. According to this theory, learning is not a process or assimilation of abstract concepts as cognitive learning theories suggest. Rather, learning occurs within the context of participation in communities of practice. A core concept of the theory, legitimate peripheral participation (LPP), suggests that novices (learners) initially engage in the performance of an expert to a limited degree and with limited responsibility for the end products. They increasingly participate in expert performances until they have gained mastery or until the learner (or the expert) leaves the learning context before mastery is achieved. Situated learning theory is founded on the belief that LPP fosters learning that is more relevant and transferable than traditional information transfer methods (Dennen, 2004). According to Collins, Brown, and Holum (1991), situated learning can help learners understand the purposes and uses of knowledge and the conditions under which it can be applied, as well develop the skills for applying it. Additionally, because they have applied it in multiple contexts, learners can transfer this knowledge to new problems and domains.

Mentoring, coaching, and apprenticeship are processes that experts have commonly utilized to help novices learn the complex knowledge and skills needed in professions such as medicine, nursing and teaching. These types of processes are useful for a) helping novices learn both explicit and tacit knowledge, b) supporting novices' newly learned knowledge and skills until they approximate that of experts, and c) helping novices learn how to apply their skills in the context within which they are working. To inform my understanding of techniques and processes experts in implementation facilitation might utilize to transfer skills to novices in this

area, I reviewed mentoring, coaching and apprenticeship literature. Below I present findings from this review.

Mentoring, Coaching, and Apprenticeship

Mentoring, coaching and apprenticeship are methods for fostering learning through social interactions (Dennen, 2004). Historically, they all trace their roots back to ancient times. The term mentor has its roots in Homer's poem, *The Odyssey* (Anderson & Shannon, 1988). Coaching's roots may go back to Eastern philosophers and ancient athletic coaches (Brock, 2012), although the term has only been widely used in the last two to three hundred years (Parsloe & Leedham, 2009). Apprenticeship as a way of learning in the context of becoming a skilled craft or tradesman has an equally long history. In the past twenty-five years, scholars have developed a theory-based instructional framework called cognitive apprenticeship, which is the use of an apprentice model to support cognitive learning (Dennen, 2004; Alger & Kopcha, 2011). For this review, I will focus on the processes of mentoring, coaching and cognitive apprenticeship.

Mentoring and coaching are both complex, dynamic processes that are influenced by purpose and context. They share conceptual space with each other and with other concepts and it is thus difficult to clearly delineate the differences between them (Butts et al., 2007; Fielden et al., 2009; Passmore et al., 2012; Scandura & Pellegrini, 2007). In fact, the terms are sometimes used interchangeably and are applied to a wide range of activities in multiple contexts for various populations and purposes (Fielden et al., 2009; Grant & Cavanagh, 2004; Grant, 2005; Passmore et al., 2012; Stober & Perry, 2005; Watt, 2004). Although scholars have attempted to provide some definitional clarity to the concepts, there are no commonly accepted definitions of either mentoring or coaching (Bozeman & Feeney, 2007; Eby & Allen, 2007; Haggard et al., 2011;

Ives, 2008). A review of a broad array of literature across the three primary streams of mentoring scholarship (youth, academic and workplace mentoring) (Allen & Eby, 2007; Eby & Allen, 2007) describe mentoring as a unique relationship between individuals, a learning partnership, a process defined by the type of support provided, reciprocal yet asymmetrical, and dynamic (i.e., it changes over time) (Eby et al., 2008). This description of mentoring's attributes might also be applied to coaching. Attempts to clarify the definition of coaching have suggested that coaching is an intervention that is used to facilitate learning, change, and development (Ives, 2008; Passmore & Fillery-Travis, 2011), a description that might also be applied to mentoring.

There is, however, a significant difference in the amount and type of research that has been conducted on mentoring and coaching. There is an established and widely referenced body of mentoring research in the positivist tradition (Garvey et al., 2014). There is not a comparable tradition or amount of coaching research, which is largely composed of case studies and insider accounts (Garvey et al., 2014). Additionally, studies of both coaching and mentoring are conducted across multiple fields (Ali & Panther, 2008; Bozeman & Feeney, 2007; Eby & Allen, 2007; Ives, 2008; Wanberg et al., 2003) in disciplinary silos with little interdisciplinary communication, leading to fragmentation in the literature (Eby et al., 2008; Salas & Cannon-Bowers, 2001) and lack of differentiation between these concepts. Adding to this fragmentation, academic researchers and professional practitioners in coaching institutes seldom communicate with one another (Stober & Perry, 2005).

Cognitive apprenticeship, on the other hand, is conceptually distinct from mentoring and coaching. It has been called an instructional paradigm and a theoretical framework (Nickle, 2007), an instructional framework that is theory based (Alger & Kopcha, 2011), and a model of instruction (Collins et al., 1991). Like mentoring and coaching, experts have used cognitive

apprenticeship to help those with less experience learn complex knowledge and skills. In fact, in the cognitive apprenticeship model, one of the tasks of experts is to 'make thinking visible' so that novices have access to tacit knowledge that will help them become experts. There are four dimensions to cognitive apprenticeship: content or types of knowledge required for expertise, the core methods experts use to help novices learn, the sequencing of tasks, and sociology or the communities of practice within which novices become experts (Collins et al., 1991). Below I further discuss the constructs that are relevant for this study.

Because the goal of this study is to explore how experts can help less experienced change agents (their protégés) learn how to facilitate implementation of innovations in health care settings, this study will contribute new knowledge to the field of implementation science. Findings from this study may also inform our understanding of mentoring, coaching, and/or cognitive apprenticeship because they will address gaps in our understanding of the specific activities of mentors and coaches (Baugh & Fagenson, 2007; Feldman & Lankau, 2005; Lankau & Scandura, 2007; Sambunjak et al., 2010). Next I will explore mentoring, coaching and cognitive apprenticeship literature further to understand methods that experts in these areas utilize to help novices learn.

Methods Experts Use to Facilitate Learning

The depth and clarity with which scholars describe experts' activities or methods for helping their protégés learn new knowledge and skills is variable across the mentoring, coaching and cognitive apprenticeship literature streams. Kathy Kram (1985), in writing her seminal book on workplace mentoring, identified two functions (or characteristics of the mentoring relationship), career and psychosocial functions. The majority of scholars conducting research on mentoring in work organizations have adopted her framework (Dougherty & Dreher, 2007).

Although the functions involve specific mentoring behaviors (Dougherty & Dreher, 2007; Johnson et al., 2007), mentoring research has focused on clarifying the functions of mentoring rather than identifying specific activities that these functions involve (Wanberg et al., 2003). Additionally, there are no commonly agreed upon coaching activities (Grant & Cavanagh, 2004). However, both literature streams mention a broad range of mentoring and coaching techniques and processes. The cognitive apprenticeship literature, on the other hand, clearly describes methods that experts use to help their protégés learn new knowledge and skills. Drawing on all three bodies of literature, below I describe techniques and processes experts have used to help novices learn new knowledge and skills as detailed in at least one article. Not surprisingly, these mechanisms are not mutually exclusive. See Table 2 for a list of each method described below and the body of literature in which it was identified.

Observation and assessment of protégés and their performance is an activity that is mentioned across all three streams of literature (Chao, 2007; Clutterbuck, 2007; Collins et al., 1991; Ding, 2008; Eby & Allen, 2007; Harrington, 2011; Hudson et al., 2005). Observation and assessment are core to the conduct of other activities; they are ongoing processes that allow experts to make decisions about the other types of techniques and processes they will perform to help their protégés learn new knowledge and develop new skills.

As would be expected, a number of these methods have to do with how experts attempt to transfer both tacit and explicit knowledge and skills. *Modeling* involves performing tasks so that the learner can observe both explicit and tacit dimensions (Collins et al., 1991). It is considered to be one of the most powerful mechanisms for transferring knowledge and skills (Campbell, 2007) with social learning theory explaining how people learn from observing others (Chao, 2007). Modeling is often accompanied by explanations of what the experts did and why they

Table 2. *Techniques and Processes Identified in Mentoring, Coaching and Cognitive Apprenticeship Literature*

	Literature Streams		
Techniques and processes	Mentoring*	Coaching**	Cognitive Apprenticeship
Co-teaching/problem-solving, etc.	25	17	3, 6, 9
Consultation	25		9
Encouraging articulation		28	6, 9, 21, 26
Encouraging exploration		22	3, 6, 9, 26
Encouraging reflection	1, 25	22	6, 7, 9, 21
Facilitating exposure and visibility	1, 2, 16, 27		
Fading or separation	19, 24		3, 6
Giving challenging assignments	2, 16, 27		6
Making thinking visible	20		8
Modeling	1, 2, 4, 16, 23, 25, 27	13, 17	6, 8, 9, 21
Observation and assessment	2, 14, 25	22, 28	3, 6, 8
Promoting interests	5, 16		
Providing acceptance, confirmation and support	1, 15, 16, 27, 28	12	21
Providing feedback	1, 4, 16	10, 13	2, 6, 9
Providing protection	16, 27		8
Providing suggestions, advice, reminders	1, 2, 4, 14, 15, 16, 23, 25, 27	11, 12, 13	3, 6, 9
Scaffolding			3, 6, 21
Sequencing	1, 25		6
Sharing experiences and telling stories	18		21
Stepping in and out	25		6, 7
Teaching/instructing	1, 4	12	6
Utilizing heuristics			6, 21

References for Table 2:
[1]Ali & Panther, 2008; [2]Bouquillon et al., 2005; [3]Browne & Ritchie, 1991; [4]Butler & Felts, 2006; [5]Clutterbuck, 2007; [6]Collins et al., 1991; [7]Cope et al., 2000; [8]Ding, 2008; [9]Feinstein et al., 2015; [10]Feldman & Lankau, 2005; [11]Fielden et al., 2009; [12]Fixsen et al., 2005; [13]Geist & Cohen, 2010; [14]Hudson et al., 2005; [15]Hunt & Michael, 1983; [16]Kram & Isabella, 1985; [17]Kretlow et al., 2012; [18]Lankau & Scandura, 2007; [19]Mills et al., 2006; [20]Ness et al., 2010; [21]Nickle, 2007; [22]Passmore & Fillery-Travis, 2011; [23]Roberts, 2000; [24]Sambunjak et al., 2010; [25]Schwille, 2008; [26]Stalmeijer et al., 2010; [27]Wanberg et al., 2003; [28]Watt, 2004

*Techniques and processes vary across different types of mentoring literature, e.g., stepping in and stepping out is only found in educative mentoring literature. **Although empirical literature on coaching is small, techniques also vary across different types of coaching literature.

chose to do it, thus "making their thinking visible" (Browne & Ritchie, 1991; Collins et al., 1991; Ding, 2008; Nickle, 2007). Modeling does not have to be a conscious process on the part of either the expert or the protégé to be a powerful facilitator of learning (Chao, 2007). The focus of *coaching* techniques is on helping novices perform jobs or specific tasks so that they meet or exceed expectations or come closer to expert performance (Chao, 2007; Collins et al., 1991; Geist & Cohen, 2010; Grant, 2005). Critical components of coaching seem to include expert observation of novice performance and provision of feedback (Browne & Ritchie, 1991; Chao, 2007; Collins et al., 1991; Cope et al., 2000; Ding, 2008; Feldman & Lankau, 2005; Nickle, 2007), as well as providing suggestions, advice, and reminders (Collins et al., 1991; Nickle, 2007; Schwille, 2008). It may also include other activities that can be performed independent of these core activities, such as modeling, scaffolding, providing support and encouragement, and facilitating socialization (Browne & Ritchie, 1991; Chao, 2007; Collins et al., 1991; Cope et al., 2000; Nickle, 2007). Evidence from cognitive psychology suggests that *sharing experiences/telling stories,* like modeling, is useful for helping transfer knowledge that has rich tacit dimensions (Swap et al., 2001). In addition to being "packages of situated knowledge," stories can provide legitimacy for the story-teller (Jordan, 1989). Finally, *making thinking visible* is in essence "thinking out loud" (Ness et al., 2010) and is also useful for transferring tacit knowledge. This activity is done in combination with other activities, such as coaching and modeling, described above. By thinking out loud, the expert can exhibit reasoning, problem-solving and decision-making processes so that the protégé can understand and internalize some of the tacit dimensions of these processes.

In the process of helping protégés gain new knowledge and skills, experts support self-learning by encouraging such techniques as articulation, exploration and reflection. To

encourage *articulation,* experts may ask questions, have protégés talk about their knowledge or verbalize their thinking or reasoning and the rationale for it, or critically assess expert or jointly planned activities (Browne & Ritchie, 1991; Collins et al., 1991; Nickle, 2007; Stalmeijer et al., 2010). These processes help both experts and protégés to assess protégés' knowledge and skills. To encourage *exploration*, experts may encourage and empower protégés to seek out information, solve problems, or try new tasks on their own (Browne & Ritchie, 1991; Collins et al., 1991; Stalmeijer et al., 2010). To encourage self-*reflection*, experts may urge protégés to talk about their performance or compare it to the experts' or their own expectations by debriefing them after their performance of an activity or assignment (Collins et al., 1991; Cope et al., 2000; Lankau & Scandura, 2007; Nickle, 2007; Schwille, 2008).

A number of activities mentioned in the literature support protégés in other ways and although they are not unique to the mentoring literature, all three were identified as behaviors for the psychosocial mentoring functions (Kram, 1985). Experts provide psychosocial support to protégés through *acceptance, confirmation,* and *support* using techniques like encouragement and positive feedback (Kram & Isabella, 1985). Such activities are thought to increase protégés' sense of competence, effectiveness and self-worth (Lankau & Scandura, 2007; Wanberg et al., 2003; Watt, 2004). Another expert activity, *facilitating exposure and visibility*, involves tapping into the expert's network and linking protégés to key people outside the protégé's own network (Chao, 2007). Experts provide *protection* when they shield protégés from organizational members who are manipulative or exploitive and from "beginner's mistakes" (Chao, 2007). Experts may also *promote* the interests of protégés behind the scenes (Dougherty & Dreher, 2007).

Finally, experts also utilize particular mechanisms for structuring the processes of helping protégés learn complex skills. A variety of terms are used to describe these activities. *Sequencing* refers to the process of assigning protégés tasks so that initially, they are given fewer tasks that are of lower complexity (Collins et al., 1991). Over time, experts assign tasks that are increasingly complex and diverse as protégés master new skills (Collins et al., 1991). As part of the sequencing process, experts provide *challenging assignments* to help protégés gain the skills that they need (Lankau & Scandura, 2007). A related concept, *scaffolding*, is the process of providing supports to help protégés learn more than they would on their own (Cope et al., 2000; Nickle, 2007). For example, when protégés are in the process of performing a task at which they are not yet proficient or if there is some part of a task they are unable to perform, experts may *step in* to help protégés with some portion of the task or if something unexpected occurs and then *step out* to allow protégés to complete the balance of the task (Schwille, 2008). Another scaffolding technique is the use of *fading*, or gradually withdrawing the scaffolding supports as protégés increasingly gain knowledge and skills and no longer need them (Browne & Ritchie, 1991; Collins et al., 1991). Scaffolding supports may also include some of the tactics that are a part of coaching, i.e., prompting, cueing, and making suggestions, as well as modeling or storytelling (Ding, 2008).

How Experts Tailor Their Efforts to Learner Characteristics and Context

Not surprisingly, given the paucity of information about the training of new facilitators, there is no information in facilitation literature about how expert facilitators tailor their efforts to help novice facilitators gain implementation facilitation knowledge and skills. On the other hand, mentoring, coaching, and cognitive apprenticeship scholars acknowledge that the characteristics of learners (as well as those of mentors/coaches/masters) and the context within

which learning takes place are significant influences on developmental relationships such as mentoring (Sambunjak et al., 2010; Wanberg et al., 2003) and that mentoring activities vary with mentee needs, mentor abilities, and organizational context (Ragins & Kram, 2007b; Schwille, 2008). However, there is little direct discussion in the mentoring, coaching and apprenticeship literature about specifically how experts actually tailor their efforts to protégés and the context. In all three streams of literature, experts use a variety of activities/behaviors to assess their protégés (Ali & Panther, 2008; Browne & Ritchie, 1991; Feldman & Lankau, 2005) and help them gain new knowledge and skills. One might assume that experts adapt their efforts to the needs, characteristics and skills of their protégés (Schwille, 2008) but it is not clear how they adapt their efforts to the context. Thus, this is another gap in the facilitation literature.

Summary

This chapter reviewed relevant literature to explore why novice facilitators need training, what knowledge and skills they need to learn, and what techniques and processes expert facilitators can use to foster acquisition of the knowledge and skills novices need. EBPP implementation is challenging; scholars have identified a wide variety of potential barriers to successful implementation as well as strategies that can address them. Implementation facilitators need to identify barriers to a particular implementation effort and context, tailor strategies to address them, and adapt their efforts and approaches. Thus, they need to learn a wide variety of complex knowledge and skills. A number of skills are mentioned in the facilitation literature but few of them were identified in research studies and few are operationally described. This study addresses that gap.

Additionally, scholarly literature speaks little as to how novice facilitators learn IF knowledge and skills. To attempt to address this gap, I reviewed publicly available materials and

articles describing how novice facilitators are trained in large-scale initiatives to improve the quality of care in primary care settings. However, even these materials contained few details about the techniques and processes that might support the transfer of IF knowledge and skills. I also explored mentoring, coaching and cognitive apprenticeship literature; these literature streams do provide rich descriptions of the methods that experts use to foster learning and these descriptions were a valuable lens for viewing the expert facilitator's activities in this study. However, even these literature streams did not explicate how experts tailor their efforts to novices' characteristics and the context of the implementation effort. This study addresses both of these gaps in the literature. The next chapter describes the design and methods I used to address the study's research questions.

CHAPTER 3: RESEARCH DESIGN, METHODS AND DATA

This qualitative descriptive study used case study methods to explore how implementation facilitation (IF) experts can help novice facilitators learn IF knowledge and skills. Case study methods are particularly appropriate when: (a) conducting research in a natural setting where the researchers have little control over events, (b) asking 'how' questions (Benbasat et al., 1987; Stake, 1995; Yin, 2013), (c) obtaining process data, particularly when little is known about a real-world phenomenon or when a process involves complex interactions (Miles & Huberman, 1994; Morse & Field, 1995; Patton, 2002; Yin, 2013), (d) learning the meaning of processes for informants (Miles & Huberman, 1994), and (e) gaining detailed information about the context of the study (Patton, 2002; Sofaer, 1999; Speziale & Carpenter, 2003).

This study addresses three research questions:

1. What implementation facilitation knowledge and skills can experts help internal change agents learn?
2. What techniques and processes can experts use to help internal change agents learn implementation facilitation knowledge and skills?
3. How do experts tailor their efforts to the learning needs of individual change agents and the characteristics of the organizational contexts within which they are facilitating change?

To answer these questions, I conducted a qualitative content analysis of data previously collected for the Blended Facilitation project, a large VA funded research project that evaluated the process and effects of an implementation facilitation (IF) strategy within the context of a VA

policy initiative. In this dissertation study, the "case" I examined for the first two research questions was the EEF and her efforts to help internal regional facilitators (IRFs) learn how to facilitate implementation of primary care-mental health integration (PC-MHI). To address the third research question, however, I also explored two inter-related cases (the EEF and IRF dyad in each network) that are embedded within this case.

This chapter will describe Blended Facilitation project methods that are relevant for the current study and the data collected for the main project that served as source data for the current study. I then present the data analysis methods for each of the current study's research questions. The VA Central Institutional Review Board, which provides regulatory oversight for the Blended Facilitation project, and the Central Arkansas Veterans Healthcare System Research and Development Committee approved this study. The Institutional Review Board of the University of Arkansas – Fayetteville also approved the conduct of this study.

Blended Facilitation Project Methods

The Blended Facilitation project (Kirchner, Ritchie et al., 2014) used a quasi-experimental, Hybrid Type III (Curran et al., 2012) design with non-equivalent comparison groups and mixed methods to evaluate a facilitation strategy for implementing primary care – mental health integration care models in VA primary care settings. As previously described, we conducted the project within the context of a national VA policy initiative that mandated implementation of such care models and provided some national implementation support (Post et al., 2010).

Site Selection

During the project, VA was comprised of twenty-one regional networks each led by a network director. In many VA networks, mental health service lines provided structure for

integrating mental health services across facilities within the network, e.g., by allocating resources, standardizing services, and disseminating best practices. However, networks organized their service lines in different ways and in some networks, service line managers had more authority to control resources and influence policies, personnel and programs at the facility level than in other networks (Charns et al., 2001). To control for the potential influence of mental health service line structure on the PC-MHI implementation process, we selected one network with a strong mental health service line structure, network A, and one with a more moderate structure, network C. The mental health leader in network A had control of a dedicated budget and input into the selection and evaluation of VA Medical Center (VAMC) mental health leaders and network policies and procedures. In network C, the mental health leader did not have a dedicated budget and had only very limited input into selection and evaluation of VAMC mental health leaders and network policies and procedures.

For the Blended Facilitation project, mental health leaders in networks A and C each identified: 1) an internal regional facilitator who could devote fifty percent effort to facilitating PC-MHI implementation at project clinics and 2) four primary care clinics, one located in a VAMC and three located in community-based outpatient clinics, which would be unable to implement PC-MHI without assistance such as facilitation. We required that clinics had the potential to serve five thousand or more primary care patients per year, and planned to begin implementing a PC-MHI program during the first year of the study.

We matched intervention networks A and C to comparison networks based on the strength of their mental health service line structures. We also matched clinics within comparison networks to intervention clinics. Two other project studies compared the extent to which intervention versus comparison sites were able to implement PC-MHI programs with

fidelity (Kirchner, Ritchie et al., 2014; Ritchie, Parker et al., 2015). A third study addressed the implementation process (Parker et al., 2014; Ritchie, Kirchner et al., 2015). Because the focus of this dissertation study is on the transfer of knowledge from an EEF to the IRFs, I only utilize data from the two intervention networks, A and C.

Implementation Facilitation Intervention

We implemented the IF strategy in four clinics in Network A and four clinics in Network C (total n = 8). A national expert external facilitator (EEF) with expertise in PC-MHI care models, implementation science, and facilitation and one internal regional facilitator (IRF) in each network, who initially did not have this expertise, applied the strategy. Both IRFs were network level employees but had different disciplinary backgrounds, clinical psychology and social work. A key component of the EEF's role was to help the IRFs learn the knowledge and skills associated with implementation facilitation so that over time, IRFs could become experts in implementation processes and how to facilitate them. Network mental health leaders in Networks A and C identified staff for the IRF roles and the EEF began meeting with IRFs by telephone in May (IRF A) and July (IRF C) of 2009. Because the separate evaluation team conducting research activities to assess the IF strategy had to wait for Institutional Review Board approval, they did not begin conducting the debriefing interviews described below until August 2009. From May until July 2009, project staff, however, did take call notes during the EEF's individual and joint meetings with IRFs and as the evaluation leader, I attended those calls. Because those notes documented the EEF's interactions with IRFs, I included them as source data for the current study as described below. Facilitators conducted in-person site visits at all eight study sites in August and September of 2009 to formally initiate IF activities. The EF discontinued working with sites in the fall of 2011. IRF A continued in that role until the

summer of 2012. IRF C retired in January of 2012 and the person she trained to assume her role was still in that position when the study ended.

Data Collection

For the Blended Facilitation project, we used two different data collection mechanisms to inform our understanding of the facilitation process: 1) debriefing interviews with facilitators and 2) semi-structured qualitative interviews conducted at two time points during the study. We conducted joint debriefing interviews with the EEF and relevant IRF immediately after the initial visit to each study site. We then conducted monthly individual, approximately hour-long, debriefing interviews with them from August 2009 to November of 2011 with a follow-up interview with the IRFs only in June of 2012. Although during debriefing interviews with IRFs, we tracked the ongoing facilitation process and implementation progress at each site, as well as barriers and facilitators to PC-MHI implementation, we also collected information relevant to the EEF's training of IRFs. During EEF debriefing interviews, we focused primarily on activities intended to help IRFs learn how to facilitate PC-MHI implementation, but we also asked questions about facilitation activities the EEF conducted independent of the IRF and events and policies in the larger VA system than might affect implementation at the study sites. We conducted all interviews by telephone. Two highly experienced qualitative researchers (a PhD level organizational scientist and I) conducted the interviews with the former serving as the primary interviewer and the latter serving as secondary, asking clarifying questions and making sure that all topics were covered.

Due to the large scope of this project, the significant amount of qualitative data we were collecting, and limited resources, we were unable to audio-record debriefing interviews and transcribe the recordings. Instead, both interviewers took extensive notes, documenting

facilitators' responses as close to verbatim as possible. With few exceptions, the secondary interviewer wrote up the notes and the primary interviewer reviewed and made edits. The secondary interviewer then accepted the edits or provided feedback if the edits were contrary to her understanding of what facilitators said. Interviewers then discussed and resolved any differences. On a few occasions when they differed in their understanding of what facilitators said and were unable to come to consensus, either the secondary interviewer followed up with the person interviewed to clarify what they had said or the interviewers asked for clarification during the next debriefing interview. Because we wanted to track the IF process at each site, we divided ongoing debriefing interview notes into a separate document for each site. We collected notes about activities facilitators conducted for all sites in an additional document for each network. Thus, for each site visit and individual IRF interview, we created up to five documents. We created only one document of notes per EEF debriefing interview because those interviews focused primarily on training and mentoring activities rather than IF activities at the site and network levels. In total, we conducted eighty-five debriefing interviews that we summarized in 284 documents.

In addition to the debriefings, we conducted semi-structured qualitative interviews by telephone with IRFs to assess the implementation facilitation process approximately 16 and 28 months and with the EEF 16 and 37 months after the initial visit to study sites. We conducted the second EEF interview later due to challenges in scheduling. Interviews with IRFs lasted between sixty and ninety minutes. Interviews with the EEF lasted two hours. The same senior PhD level researcher that led the debriefing interviews and I conducted these interviews. The former served as the primary interviewer and the latter took back-up notes, ensuring that the interview was audio-recorded and that all topics were fully covered, and exploring topics further.

Shortly after conducting the interviews, interviewers de-briefed, discussing observations about the interview process, content, or context or about the interviewee's behavior, mood or responses. To prepare data for analysis, transcribers prepared verbatim transcripts of audio-recorded interviews. Although we created summary notes of the debriefing interviews, we audio-recorded and transcribed the qualitative interviews because they were part of a larger component of the original study that included similar interviews with multiple stakeholders to assess the IF process, not just document it. In total, we conducted six of these interviews with facilitators.

Current Study Data Sources

To identify source data that could inform the answers to the current study's research questions, I reviewed all call notes, debriefing notes and qualitative interview transcripts described above. Pre-site visit call notes, site visit debriefing notes and ongoing EEF debriefing notes documented the process and content of EEF interactions with and training of the IRFs as they occurred. This data had been collected in real time (pre-site visit call notes), shortly after facilitators conducted activities (site visit debriefing notes), or within approximately a month of these activities (EEF ongoing debriefing notes). Transcripts of qualitative interviews provided facilitators' retrospective reflections on the skills transfer process, including how facilitators worked together, the most important aspects of this process, skills IRFs developed as a result, and ways that the process might be improved. See Table 3 for a list of the primary source documents. The extended period of time over which we collected the source data (27 months) and our persistent focus on the EEF's processes for helping IRFs learn IF knowledge and skills maximized the potential for gaining a broad and in-depth understanding of these processes.

Table 3. *Current Study Primary Source Data*

Documents	Informants	# Documents	# of pages
Notes: Pre-site visit calls	Observation	7	13
Notes: Site visit debriefings	EEF and IRFs	10	34
Notes: Ongoing debriefings	EEF	29	93
Transcripts: Qualitative interviews	EEF	2	57
Transcripts: Qualitative interviews	IRFs	4	70
Totals		52	267

Using all notes and qualitative interview transcripts as primary source data allowed me to create thick descriptions of IF knowledge and skills and IF transfer techniques and processes to address the first two research questions. Notes were a rich source of information about content and process. Qualitative interviews were additionally sources of exemplar quotations that summarized or reinforced the EEF's descriptions of her efforts and sometimes provided new insights and highlighted what was particularly salient for the EF and the IRFs. Because the notes captured the EEF's efforts as they occurred, I utilized only notes as source data to compare the EEF's level of focus on particular skills for the case comparisons to address the third research question. I then utilized all notes and transcripts as source data to identify how the EEF tailored her efforts to IRF characteristics and needs, as well as organizational context.

Although notes for the fifty-two debriefing interviews with IRFs contained little explicit information about the EEF's efforts to help IRFs learn IF knowledge and skills, these documents provided a rich source of background information about the circumstances and the context within which these activities and interactions occurred. Because all notes contained the date range for the period of time the notes covered, I could link text in IRF debriefing notes to text in EEF debriefing notes. Thus IRF debriefing notes served as supplementary materials during the analysis process. Although we summarized IRF debriefing interviews in 235 documents, for ease of use as supplementary material, I combined notes for each site (8 sites) and for all sites in

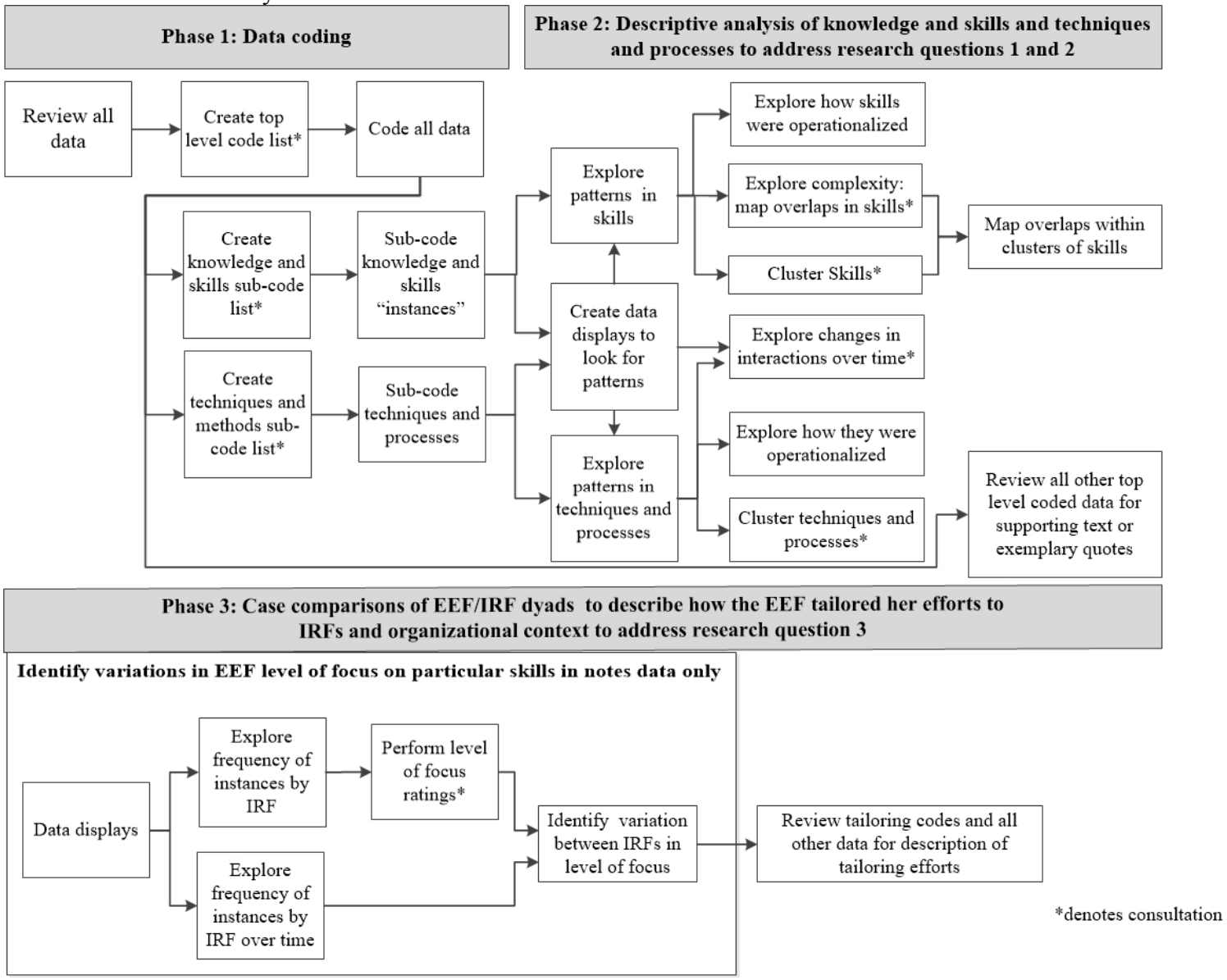
a network (2 networks) into individual documents resulting in a total of ten documents containing 261 pages.

Data Analysis

I conducted a content analysis of the pre-site visit call notes, the monthly debriefings and semi-structured interviews with the EEF and IRFs. Content analysis is frequently used in qualitative research such as case studies to identify and categorize patterns and themes in order to understand the content of the data and its meaning (Kohlbacher, 2006; Patton, 2002; Sandelowski, 2000). There are different approaches to conducting content analysis depending on how codes, a word or phrase used to mark text and assign meaning to it, are identified and applied (Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). In this study, I used a mix of inductive and deductive approaches to analyze data, as well as a third approach, counting instances of events to identify patterns in the EEF's level of focus on particular skills with each IRF. I used Atlas.ti (2016), a qualitative data management and analysis software package, to mark blocks of text with codes, which is similar to creating a book index or a filing system (Patton, 2002), and explore the relationships between them.

Below I describe the phases of data analysis. Although I conducted the analysis alone, on occasion, I consulted with the organizational scientist and expert in qualitative methodology with whom I had collected and analyzed data for the other project qualitative studies. The purpose of this consultation was to mitigate the potential for bias and to enhance my understanding of the data or the analysis process. I sought consultation on top-level and sub-code lists, clustering of skills and techniques and processes, displays of the complexity of skills and changes in facilitators' interactions over time, and the development of cut-points for level of focus ratings. See Figure 1 for an overview of the data analysis process.

Figure 1. Phases of Data Analysis.



Phase 1: Coding the Data

In the first phase of data analysis, I created a top level code list and applied codes in Atlas.ti to all primary source data. I then created sub-code lists and sub-coded all text that I had coded with top level codes for the first two research questions. Below I describe how I developed code lists and coded the data to prepare it for the next phase of analysis.

Top level coding. For the first phase of analysis, I developed, a priori, a list of codes that would allow me to retrieve and organize data to address all three research questions. There are many different types of codes that researchers can utilize in the qualitative data analysis process (Miles & Huberman, 1994; Saldaña, 2013). In the top level code list, I included descriptive codes to identify text that addressed 1) the study's research questions and 2) related questions we asked during facilitation assessment interviews (see Table 4). I additionally included codes to identify which IRF was the target of the EEF's efforts and, when available, the timing of the EEF's efforts, i.e., whether she was helping IRFs learn skills before, during, or after a particular facilitation event.

Using Atlas.ti I applied these top level codes to the pre-site visit call notes, site visit debriefing notes, ongoing EEF debriefing interview notes, and the transcripts from the semi-structured qualitative interviews with the EEF and each IRF. I applied the "knowledge and skills" and "methods EEF used" codes to text 1) when facilitators talked explicitly about the content and/or process of skills transfer, and 2) when facilitators talked about facilitation activities during which it was clear that the EEF was also helping IRFs learn how to facilitate PC-MHI implementation. I applied these codes under the latter circumstances when the EEF had explicitly stated during debriefing and/or facilitation assessment interviews that she was also working to transfer skills during those types of activities. For example, the EEF said that during

site visits, she modeled how to conduct facilitation activities for IRFs. I also coded the content and/or process of skills transfer in pre-site visit meeting notes. When I applied these codes and the primary source data did not include sufficient detail to inform research questions, I reviewed relevant information in the supplementary material, IRF debriefing notes. When I found text that provided additional description, I hyperlinked that text to the coded text in Atlas.ti so that it was readily available during the next phase of analysis. After completing the top level coding process, I thoroughly reviewed all coding and modified it when needed.

Table 4. *Top Level Codes*

Related to research questions
Knowledge and skills EEF helped IRFs learn
Techniques/processes EEF used to help IRFs learn
IRF needs/characteristics
Other details about IRFs
Tailoring to IRF needs/characteristics
Organizational characteristics (with site sub-codes)
Tailoring to organizational context
Based on interview questions
How to improve mentoring/training
Mentoring Outcomes
Reflections on the mentoring process generally
Most important aspects of mentoring
How mentoring changed over time
Other descriptive codes
Target of efforts: IRF A, IRF B, Both IRFs
Timing of efforts: before, during, or after facilitation events

Sub-coding "knowledge and skills" and "techniques and processes" top level codes. Next, I used both deductive and inductive methods to develop sub-code lists and code text previously marked with the two top level codes, "knowledge and skills" and "techniques and processes." I developed initial sub-code lists based on reviews of relevant literature. I reviewed all text marked with that top level code, further refining the sub-codes and adding new ones as they emerged from the data. I then applied the sub-codes, refining them further during the

analysis process. To insure that I could assess the EEF's level of focus on each skill during the next phase of analysis, in the documents containing meeting or debriefing interview notes that recorded EEF activities as they occurred, I coded "instances" in which the EEF was helping IRFs learn a particular skill only once. If she mentioned the same instance more than once or if it was clear that text was referring to an instance more than once, I applied all relevant sub-codes to the first mention of this instance and hyperlinked all other related text to the initial text so that the latter would be readily available during further analysis. During the process of sub-coding these two top level codes, I again reviewed supplementary materials to insure that descriptions would be as rich as possible. When supplementary text enhanced the description in the primary source data, I hyperlinked text from the supplementary material to the primary source text. After I completed the sub-coding process, I re-reviewed coding for accuracy and fit, as well as the coding of instances only once. The final list of knowledge and skills the EEF helped IRFs learn included four knowledge sub-codes and eighteen skills sub-codes. The final list of techniques and processes the EEF used to help IRFs learn included twenty-one sub-codes. See the full list of sub-codes for research questions 1 and 2 in the next chapter.

Phase 2: Descriptive Analysis to Address Research Questions 1 and 2

In the second phase of analysis, I predominantly used text coded at the top level with either the knowledge and skills code or the techniques and processes code. I initially conducted an exploratory analysis by reviewing sub-coded text for each of these top level codes and creating data displays to explore patterns and relationships. I then conducted an in-depth exploration of sub-coded text for each top level code to understand and describe what knowledge and skills the EEF transferred to IRFs and what techniques and processes she used to help IRFs

learn the knowledge and skills they needed. Below I describe procedures I used in this descriptive analysis.

Exploratory data displays. Miles & Huberman (1994) contend that data displays, such as matrices, graphs, charts and networks, are an important component of qualitative data analysis. Good displays contain information in a compact, easily accessible form so that the data analyst can explore relationships and draw valid conclusions. They also suggest that the analysis process does not end there. In writing up findings, the analyst should use a cyclical process to move iteratively between exploring the display and writing analytic text. The latter process may lead to re-analysis or further analysis, suggest additional comparisons, and/or lead to modifications of the display. These processes can lead to additional findings and enhanced meanings.

Following Miles & Huberman's recommendations, I used data displays extensively in the analysis to address research questions one and two. I initially created an Excel workbook that condensed all of the text marked with knowledge and skills sub-codes. Each spreadsheet summarized the text for a particular sub-code with each row containing information about each instance in which the EEF was helping the IRF learn that skill. Columns in the spreadsheet contained information I wanted to know about that instance: the time period in which it occurred, location of the text, the IRF the EEF was training, the primary target of the EEF's efforts, the site where the instance occurred, the timing of the instance in relation to facilitation events, the techniques and processes the EEF used in that instance, and a very abbreviated summary of what the EEF was helping IRFs learn. I also reviewed all text related to that sub-code and identified descriptive themes that would allow me to summarize how the EEF operationalized each skill. I added a one- to two-word theme description to each instance summarized on the Excel

spreadsheet. To further facilitate the exploration of themes and patterns for each sub-code, I coded whether the instances included IRF A, IRF B or both IRFs. For each sub-code, I then used Excel's data sorting function to explore patterns and relationships between when instances occurred, which IRF was involved, whether a site and which one was involved, techniques and processes the EEF used, the target of the EEF's efforts, the timing of the EEF's efforts in relationship to facilitation activities, and what the EEF was helping IRFs to learn.

I created an additional Excel workbook with a spreadsheet for each sub-code. On these spreadsheets, I created three tables. In one table, I entered the frequencies of instances of sub-code themes for each IRF and calculated their percentages. I also created a table of the frequencies and percentages of techniques and processes the EEF used to help each IRFs learn that particular skill. Finally, I created a table to display, by IRF, the number of skills transfer instances in each three month time period of the study. The purpose of this workbook was to facilitate a preliminary understanding of the frequency of EEF's efforts by skill themes, techniques and processes, and particular skills over time. Atlas.ti has a number of data analysis tools which I used in this study. For this exploratory analysis, I used Atlas.ti's co-occurrence tool to explore co-occurrences of knowledge and skills sub-codes with each other, techniques and processes sub-codes with each other and knowledge and skills sub-codes with techniques and processes sub-codes. After completing this exploratory analysis, I conducted separate analyses, described below, of the text for the knowledge and skills sub-codes and the techniques and processes sub-codes.

Knowledge and skills. In the process of exploring themes in how the EEF operationalized implementation facilitation knowledge and skills, it was clear that IF skills are complex and possibly overlapping, i.e., some skills seemed to include other skills. Given the

lack of conceptual clarity in the literature for some of these skills, e.g., interpersonal skills, this was not surprising. Because some skills did not seem to be "unique" skills, it was important that I explore the complexity of IF skills and relationships between them. Network displays, using nodes and lines, can allow you to see such patterns (Miles & Huberman, 1994). Using Atlas.ti's network function, I displayed icons for each of the skill sub-codes. For each sub-code, I reviewed all of the text describing instances in which the EEF was helping IRFs learn that particular skill and then reviewed all of the text for each of the other skills sub-codes to identify relationships between those skills and the one on which I was focusing. When another skill seemed to be part of the skill on which I was focusing, I drew a one way arrow in Atlas.ti from the icon for the other skill to the icon for the skill of focus. I repeated this process for all skill sub-codes. This display allowed me to further explore and describe the relationship between skills, as well as their complexity.

Clustering, a process of inductively forming categories and sorting data into those categories, is another technique that qualitative data analysts use to make sense of the data (Miles & Huberman, 1994). To further understand the eighteen skills I had identified, I used an inductive process to cluster or group seventeen of the skills into five categories of over-arching, higher-level skillsets. Communication skills did not fit into any of these skill clusters as it seemed to be a unique set of skills in that, although communication skills were part of other skills, other skills were not part of communication skills. To understand the relationships between skills within each cluster, I created a display showing the relationships between each of the skills in a skill cluster using the skills network display I had previously created in Atlas.ti. Next, for each skill, I reviewed Excel workbooks and printouts of text for each knowledge and skills sub-code and how they were operationalized, the network display of relationships between

skills, and the network display of relationships within skill clusters to write a rich description of each skill and how it was operationalized.

Techniques and processes. To create a rich description of the techniques and processes the EEF used to help IRFs learn IF knowledge and skills, I reviewed printouts of text for each of the twenty-one techniques and processes sub-codes and conducted a clustering process to further understand and make sense of the data. It was clear that five of the twenty-one techniques and processes were primary methods that the EEF used to transfer IF knowledge and skills to IRFs. Fifteen of the techniques and processes were supportive techniques the EEF used to help IRFs learn IF skills. One of the EEF's techniques, observation and assessment, did not fit in either of these two categories. Rather than helping IRFs directly, this technique informed the EEF's decisions about what IRFs' needed to learn and what techniques and processes the EEF should use to help them. Having identified two over-arching types of techniques and processes the EF used with IRFs, primary methods and learning support methods, I again reviewed the text for each of the sub-codes within these categories. During this process, I inductively identified two types of primary methods, active and participatory methods, and four types of learning supports, cognitive, psycho-social, self-learning, and structural supports. For each type of method within each category, I again reviewed text for each sub-code to write a rich description of the techniques and processes the EEF used.

During the analysis process, beginning with the exploratory analysis using Excel workbooks, I noticed that there seemed to be a general pattern of changes in how the EF interacted with IRFs and how they both interacted with site stakeholders with whom they were working. To explore this further, I reviewed data displays and data printouts looking for patterns in primary methods the EEF used, active or participatory, over time because the EEF generally

started out using active methods and then shifted to participatory methods when the IRF had gained some experience. I also looked for patterns in which of the facilitators, EEF only, EEF and IRF, or IRF only, was conducting facilitation activities and interacting with site stakeholders. Finally, I looked for changes in level of intensity in these patterns, e.g., when types of interactions were occurring less frequently. I then graphically represented these changes in interactions between facilitators and facilitators and site stakeholders using arrows and varying arrow formatting to denote direction of interactions and changes over time. Although during the first four months of the study these patterns were consistent across sites, between four and twenty-seven months, when these changes occurred was variable across sites. However, some of the change patterns occurred at all sites between four and twelve months and another set of patterns occurred at all sites between thirteen and twenty-seven months. I did not attempt to break these patterns down by quarters but presented them in a linear manner in two blocks for those two periods of time.

In summary, I created data displays utilizing data management software, Excel and Atlas.ti, to explore patterns and relationships. I also reviewed sub-coded text for each of the top level codes, inductively clustered types of knowledge and skills and techniques and processes into broader categories and used other graphic representations to explore patterns and relationships. Consistent with Miles & Huberman (1994), iteratively reviewing these displays and writing descriptions led to further analysis and re-analysis, suggested additional exploration and comparisons, and ultimately led to additional findings and enhanced meanings (p. 101). These analytic activities resulted in rich descriptions of knowledge and skills the EEF transferred to both IRFs and techniques and processes she used to accomplish this.

Phase 3: Case Comparisons to Address Research Question 3

In the last phase of data analysis, I used a case comparison approach to explore how the EEF tailored her efforts to IRFs and the organizational context. Although I coded all data with two top level codes to capture what the EEF said about tailoring her efforts, we had not consistently asked the EEF to discuss this issue in our interviews with her. However, in previous phases of analysis focusing specifically on notes source data that documented the EEF's activities, I had noticed variation in the number of instances in which the EEF helped each IRF learn particular IF skills. I also noticed variation in the number of instances between IRFs over time even when the overall number of instances in which the EEF helped IRFs learn particular skills seemed similar for both IRFs. Thus, to address the third research question, I felt it was important to additionally explore how the EEF's efforts differed between IRFs and then explore data to ascertain why they were different. This phase of the analysis assumes that the number of instances in which the EEF helped an IRF learn a particular skill indicated the EEF's level of focus on that skill. Below I describe these procedures.

To identify variation in overall level of focus on each skill, I used Atlas.ti's co-occurrence analysis function to identify the number of instances in which the EEF focused on each skill with each IRF in the notes source data, which documented the EEF's activities as they occurred. I exported this data into an Excel spreadsheet to facilitate further analysis. I ordered skills by frequency of instances for each IRF. To reduce the potential for bias, I consulted with Dr. Parker to identify five

Table 5. *Cut-points for Level of Focus Ratings*

Cut-points	Ratings
≥ 20 instances	High
17 - 19 instances	High Moderate
13 - 16 instances	Moderate
10 - 12 instances	Low Moderate
0 - 9 instances	Low

meaningful cut-points to assign level of focus ratings to data based on frequency of skill transfer instances (see Table 5). I then compared IRFs on level of focus ratings to identify variation.

Because it was possible that overall level of focus was similar for both IRFs but changes in level of focus over time might indicate other tailoring efforts, I conducted a similar analysis to examine the latter. Utilizing that same dataset, notes documents that recorded the EEF's efforts, I created document families in Atlas.ti for each of the ten quarters of the study (nine quarters during which we conducted interviews and the pre-site visit quarter during which I observed EEF conference calls with IRFs). Utilizing Atlas.ti's query tool, I created super codes that combined each IRF with each skills sub-code. I then utilized the Codes-Primary documents table analysis tool in Atlas.ti to create a report on frequency of skill instances by quarter for each IRF. The frequency of skill instances for each quarter was too low to assign ratings. Instead, to explore the change in level of focus over time, I calculated the percentage of skill transfer instances occurring during each quarter. I then compared IRFs on level of focus on particular skills over time.

When I found variation between IRFs, either overall or over time, I explored the data for ways in which the EEF was tailoring her efforts to IRF or context. I first explored text coded with particularly relevant top level codes: tailoring to IRF needs and characteristics, IRF needs and characteristics, other details about IRFs, tailoring to organizational context, and organizational characteristics for each site. I then reviewed all related text for both IRFs for each skill in which there was variation in the EEF's level of focus between IRFs. The process of making sense of these variations was by necessity an interpretive process.

Summary

This chapter described the approach and methods I used to examine the research questions of interest. Utilizing a case study approach, I conducted a content analysis of data collected for the Blended Facilitation project. The case study approach using qualitative methods allowed me to write a rich description of knowledge and skills, as well as the techniques and processes the EEF used to help IRFs learn how to facilitate implementation of a program mandated by a national VA policy initiative. Chapter four describes the results of this analysis.

CHAPTER 4: RESULTS

The purpose of this case study was to describe how an implementation facilitation (IF) expert transfers her skills to change agents not familiar with IF. This chapter presents findings from the analysis of notes and transcripts collected for a large study evaluating an IF intervention for implementing evidence-based Primary Care-Mental Health Integration (PC-MHI). Although the analysis focused on how the external expert facilitator (EEF) described her goals and actions, I also include data from the change agents the EEF was training, the internal regional facilitators (IRFs), to highlight what was salient to the latter. Each of this chapter's three sections addresses one of the study's research questions. The first section describes the knowledge and skills the EEF helped IRFs, who were new to implementation facilitation, learn. The second section describes techniques and processes the EEF used to help IRFs learn these skills. The third section presents how the EEF tailored her efforts to the learning needs and characteristics of individual IRFs and the characteristics of the organizational contexts within which they were facilitating change.

Knowledge and Skills EEF Helped IRFs Learn

This section will address the first research question: What implementation facilitation knowledge and skills can experts help internal change agents learn? Content analysis of the EEF's debriefings and interviews identified four areas of knowledge and twenty-two complex skills. Many of these skills were not unique; they overlapped with and were related to other skills. Because our interviews focused on how the EEF transferred IF skills to IRFs, information about the knowledge she imparted was predominantly embedded within descriptions of skill transfer processes. Below I first present descriptions of IF skills and how the EEF

operationalized them. I then present the types of knowledge the EEF imparted during the training process and provide examples of how knowledge transfer was embedded within the context of skills transfer.

Implementation Facilitation Skills

Based on my inductive analysis of debriefing and interview data, I identified five clusters or groups of skillsets: (a) building relationships and creating a supportive environment, (b) changing the system of care and the structure and processes that support it, (c) transferring knowledge and skills and creating infrastructure support for ongoing learning, (d) planning and leading change efforts, and (e) assessing people, processes and outcomes and creating infrastructure for program monitoring. Twenty-one of the twenty-two skillsets fit within these groups. With a few exceptions, the skills were not unique but overlapped with one another so that many of the skillsets were composites of others. Figure 2 graphically represents these relationships, using arrows to indicate that a skill is part of the skillset to which the arrow is pointing. Below I describe communication skills, a core skillset, and the five groups of skillsets.

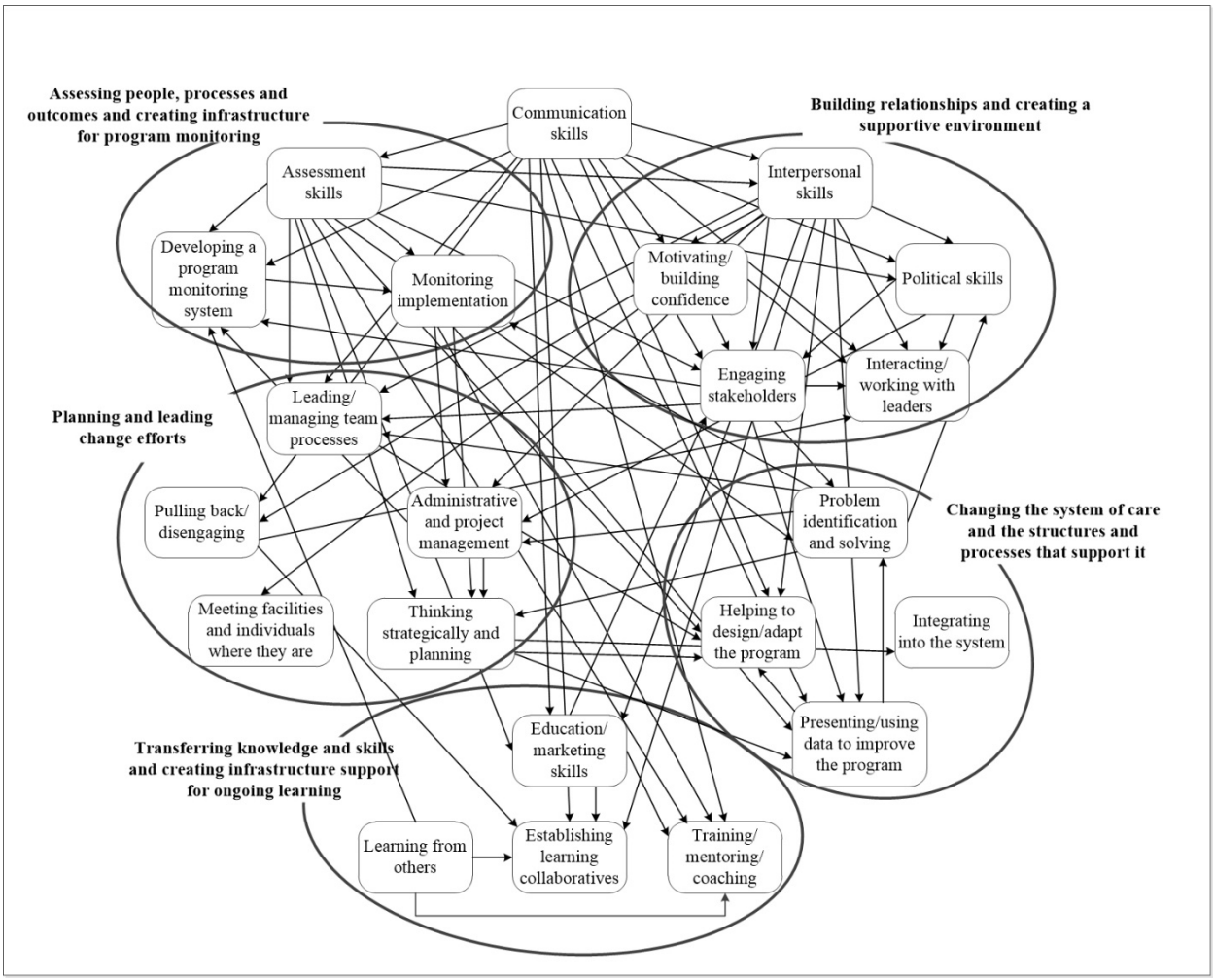


Figure 2. Relationships between Implementation Facilitation Skills.

Communication skills. Communication skills were one of five skillsets that the EEF identified most frequently during debriefing interviews. Although many of the other skills the EEF helped IRFs learn were composite skills, communication skills were a core set of behaviors that was integral to fourteen of the twenty-four skillsets I identified. The EEF focused on a broad array of oral and written communication skills, as well as listening skills (see Table 6 for details).

Table 6. *Communication Skills*

• Conducting formal presentations, with and without PowerPoint slides • Preparing for and adapting presentations to stakeholder needs and interests • Presenting information to groups and individuals in less formal ways, e.g., in-person and through teleconference calls • Using written communications, e.g., emails and reports, to provide information and facilitate PC-MHI implementation • Listening and asking questions to understand stakeholder needs and concerns, respond appropriately to their questions, and help them identify and examine areas they need to improve

Skill Group 1: Building relationships and creating a supportive environment. The group of five skills or skillsets the EEF focused on most frequently were related to building relationships with stakeholders and working with them to create a supportive environment for change and its sustainment. Figure 3 graphically identifies the five skills in this group and how they overlap with each other, as well as how integral communication skills are to each of the skills in this group. This is the most complex group of skills the EEF described. Below I briefly describe these five skillsets. Table 7 provides (a) examples of how the EEF operationalized each skillset and (b) other skills that are part of each skillset.

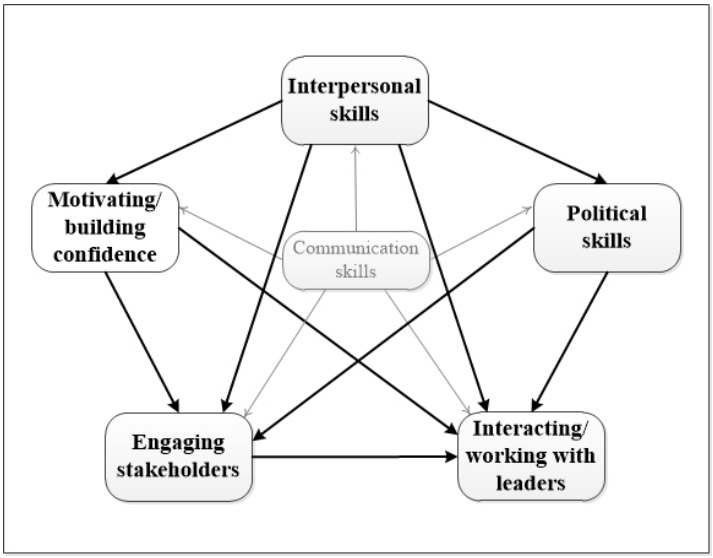


Figure 3. Relationships between Skills in Group 1.

Interpersonal skills. Interpersonal skills, another core set of skills the EEF frequently discussed, focus on interacting with stakeholders in positive ways. This skillset includes a broad range of skills that enable facilitators to interact and work with stakeholders across different

professions, roles and organizational levels (see Table 7). The EEF helped IRFs learn to interact productively with all stakeholders, even those that were angry and/or argumentative. During one interview, she said that one of the most important aspects of the mentoring process for that time period was:

> ….modeling comfort level with multiple stakeholders in a clinic. So modeling that…it's not a big deal to sit down with a medical director or chief of staff, particularly one that might be a bulldog, you know, or a jerk. So just going in and handling...modeling how to handle difficult situations...

Stakeholder engagement skills. Of the twenty-one identified skills, the EEF most frequently discussed her efforts to train both IRFs in engaging stakeholders and obtaining their buy-in for PC-MHI and participation in its implementation. This complex set of skills is primarily a composite of other skillsets that IRFs learned to combine to conduct IF activities (see Table 7).

Motivating and building stakeholder confidence skills. The EEF believed to motivate stakeholders it was often necessary to first build their confidence. To do this, the EEF taught IRFs to praise stakeholders for their participation and implementation progress, however small, and to encourage clinicians and leaders to assess their own efforts, share their successes, solve problems and create their own strategies (see Table 7).

Political skills. The EEF believed it was crucial for IRFs to have a thorough understanding of the interpersonal and political dynamics at the site and network levels. Therefore, prior to the IRFs' hiring, the EEF spent considerable time exploring political issues with the mental health leaders in participating networks, enabling the EEF to provide consultation to IRFs on these issues from the beginning. Additionally, early in the implementation process the EEF modeled how to ask questions to assess the political landscape for IRFs during joint conversations with the mental health leaders. The EEF believed it was

important to establish that facilitators had legitimate power to facilitate implementation. She thus modeled techniques for obtaining leadership introductions to clinical staff and for bringing in network leadership by presenting what was happening at sites in a non-judgmental way and deferring to network leaders' methods for influencing change.

Interacting and working with leaders. Similar to engaging stakeholders, interacting and working with leaders is a composite of multiple other skillsets, including all of the skillsets in skill group 1. Although facilitators applied these skills in working with all stakeholders, IRFs learned to combine skills to effectively interact and work with leaders. IRFs also had to become comfortable with leadership at all levels and adopt a power stance when needed. Learning this skillset was particularly salient for one of the IRFs who said, "I have had the opportunity to watch [the EEF] dialogue with very forceful, very high powered people and have gotten to see how you negotiate very difficult situations and come out successful."

Table 7. *Group 1: Skills for Building Relationships and Creating a Supportive Environment*

Interpersonal skills	Other skills in this set
• Being available as needed (and for as long as needed) • Working around stakeholder schedules • Listening to stakeholders • Ensuring stakeholder opportunities to express opinions • Deferring to stakeholders when appropriate • Assessing and addressing stakeholder needs and concerns • Knowing when and how to be assertive, to "not back down yet still be supportive • Knowing when and how to use "kid gloves"	• Assessment • Communication
Stakeholder engagement skills	**Other skills in this set**
• Tailoring interactions to support implementation based on assessment of needs • Persuading stakeholders of the value of PC-MHI • Educating stakeholders in ways that foster engagement • Knowing when and how to use political skills to foster engagement • Bringing stakeholders together and fostering participation in planning and implementation processes • Presenting themselves as helpers and enablers of change	• Assessment • Communication • Education and marketing • Interpersonal • Motivating and building confidence • Political
Motivating and building stakeholder confidence	**Other skills in this set**
• Praising stakeholders for participation in implementation efforts and for offering ideas about how to adapt, enhance or implement programs • Encouraging stakeholders by telling success stories • Encouraging self-assessment, success	• Communication • Interpersonal
Political skills	**Other skills in this set**
• Identifying power dynamics among stakeholders • "Navigating" the political landscape • Taking a "power stance" and using both legitimate and coercive power when necessary • Establishing that facilitators had legitimate power	• Assessment • Communication • Interpersonal • Problem-identification and solving
Interacting and working with leaders	**Other skills in this set**
• Bringing leaders together and involving them in implementation processes • Reaching out and seeking leaders' input in decisions related to the program and implementation processes • Being respectful of leaders' time and supportive of their decisions	• Communication • Engaging stakeholders • Interpersonal • Motivating and building confidence • Political • Pulling back and disengaging

Skill group 2: Changing the system of care and structures and processes that support it. IRFs also need to learn a set of skills aimed at helping sites change the way that they deliver mental health care within primary care settings. Most of these skills are composites of other skillsets. Table 8 provides a description of how the EEF operationalized each skill and identifies other skills that are part of each skill in this group.

Table 8. *Group 2: Changing the System of Care and Structures and Processes that Support It*

Helping to design and adapt a program to meet local needs	Other skills in this set
• Communicating and interacting with stakeholders to assess and understand local context • Identifying and addressing barriers to implementation • Leading meetings to design a program using a structured checklist to guide program decisions • Presenting and using data about implementation progress and outcomes to further adapt the program to organizational and stakeholder needs	• Assessment • Communication • Interpersonal skills • Leading and managing team processes • Presenting and using data • Problem identification and solving
Problem identification and solving skills	**Other skills in this set**
• Identifying and solving problems and helping stakeholders identify and solve problems related to: ▪ engaging stakeholders to obtain their support, buy-in and participation ▪ changing the delivery of care from specialty mental health services to PC-MHI ▪ addressing lack of resources for implementation	• Assessment • Engaging stakeholders • Presenting and using data
Presenting and using data to improve the program	**Other skills in this set**
• Reviewing, interpreting and presenting qualitative and quantitative data • Using data to: ▪ identify problems ▪ plan interventions to improve the program ▪ support and encourage stakeholder efforts	• Communication • Engaging stakeholders • Interpersonal • Monitoring implementation • Thinking strategically and planning
Helping integrate the program into other programs and services	**Other skills in this set**
• Identifying and engaging with staff and leadership of new and existing programs whose patients might need PC-MHI services or who might need to serve patients referred from PC-MHI • Working with these stakeholders to incorporate PC-MHI programs into the routine structures and processes of primary care clinics	• Assessment • Communication • Interpersonal • Leading and managing team processes • Thinking strategically and planning

Skill group 3. Transferring knowledge and skills. The third group of skills concerned transferring PC-MHI program and implementation knowledge and skills to stakeholders and building infrastructure support for the continued learning of PC-MHI program staff. Table 9 describes these skills and lists others skills that are part of each skillset.

Table 9. *Group 3: Transferring Knowledge and Skills*

Education and marketing skills	Other skills in this set
• Assessing stakeholders' understanding of PC-MHI, current practices, and perceptions of the need to change • Persuasively presenting and discussing: ▪ PC-MHI care delivery models, how they work and the evidence for them ▪ value, benefits and outcomes of PC-MHI ▪ how to implement PC-MHI, including how to address implementation challenges • Tailoring processes and content to stakeholders' needs and concerns in a variety of venues and contexts using different strategies and interpersonal styles.	• Assessment • Communication • Interpersonal
Training, mentoring and coaching skills	**Other skills in this set**
• Conducting training, mentoring and coaching activities with PC-MHI staff and leaders on: ▪ how to deliver evidence-based PC-MHI care models, rather than traditional mental health care ▪ how to increase the number of patients PC-MHI providers were seeing	• Assessment • Communication • Education and marketing • Learning from experts and similar others • Monitoring implementation
Learning and fostering learning	**Other skills in this set**
• Knowing how and when to use particular learning strategies for filling in gaps in knowledge and building on existing knowledge and skills: ▪ learning from experts ▪ learning from others, similar to themselves, who had experience facilitating PC-MHI implementation ▪ learning from IRFs' own past experiences, by reviewing what was happening at sites, what was working and what was not and applying lessons learned at one site to other sites • Using these learning strategies to foster stakeholder learning	None

Table 9. *Group 3: Transferring Knowledge and Skills* (Cont.)

Building learning collaboratives	Other skills in this set
• Scheduling calls with providers and leaders • Inviting "similar others" from successful programs to share their experiences, including how they addressed implementation challenges • Facilitating learning collaborative calls • Encouraging members to share their own experiences and problems and work on solutions • Forming their own collaboratives to learn from other facilitators	• Communication • Education and marketing • Interpersonal • Learning from experts and similar others • Pulling back and disengaging

Skill group 4. Planning and leading change efforts. The EEF helped IRFs learn or adapt a fourth group of skills focused on planning and leading change processes at sites. I provide descriptions of each skill and identify other skills in each skillset below.

Table 10. *Group 4: Planning and Leading Change Efforts*

Administrative and project management skills	Other skills in this set
• Performing technical tasks, e.g., working with sites to plan and schedule site visits and conference calls and disseminating site visit reports • Pushing implementation forward when stakeholders or sites were not responding or implementation processes were stalled	• Interpersonal • Monitoring implementation • Political • Problem identification and solving
Meeting facilities and individuals where they are	**Other skills in this set**
• Accepting and working with site and provider limitations to build on their strengths and help them be as successful as possible in implementing PC-MHI	Interpersonal
Leading and managing team process skills	**Other skills in this set**
• Leading task-oriented processes, e.g., goal setting, program design and adaptation, decision-making, and problem identification and solving • Facilitating communication, assessing and understanding stakeholder needs and behavior, managing conflict and disruptive stakeholders • Actively guiding team process, sharing ideas and offering suggestions, affirming ideas and decisions and fostering team self-management • Responding to team needs • Preparing in advance for team meetings and "wrapping up loose ends"	• Assessment • Communication • Engaging stakeholders • Interpersonal • Problem identification and solving

Table 10. *Group 4: Planning and Leading Change Efforts* (Cont.)

Thinking strategically and planning	Other skills in this set
• Planning and preparing for implementation events, such as site visits and stakeholder conferences • Diagnosing and evaluating sites and implementation processes • Thinking through what was currently happening at sites, what needed to happen for successful implementation and how facilitators could help	• Administrative and project management • Assessment • Monitoring implementation • Problem identification and solving
Pulling back and disengaging from facilities and individuals	**Other skills in this set**
• Using assessment skills to gage when to pull back and let stakeholders assume responsibility • Stopping acting as the expert • Encouraging sites to share their expertise and asking others to address problems • Deferring decision-making to leaders and helping them explore options and come to consensus • Disengaging and saying good-bye	• Assessment • Interpersonal

Skill group 5. Assessing people, processes and outcomes. The final group of skills includes the assessment of individuals and organizations, developing a PC-MHI program monitoring system, and monitoring the progress of program implementation and outcomes using assessment skills and the products of the program monitoring system (see Table 11).

Table 11. *Group 5: Assessing People, Processes and Outcomes*

Organizational and individual assessment skills	Other skills in this set
• Gathering and assessing basic information about sites, e.g., size, location, population and current practices • Assessing organizational context, such as leadership structure, support for implementation, and relevant policies and procedures • Assessing implementation facilitators, and potential barriers, e.g., competing demands on staff and lack of space • Assessing stakeholders, interpersonal and group dynamics, as well as how these impact implementation	Communication

Table 11. *Group 5: Assessing People, Processes and Outcomes* (Cont.)

Developing a program monitoring system	Other skills in this set

• Identifying monitoring measures:
  ▪ for assessing provider productivity and program utilization
  ▪ that leaders wanted to specifically monitor, including program outcome measures
• Accessing, extracting and analyzing data from existing databases or identifying and enlisting the assistance of stakeholders who can help
• Developing feedback reports, with stakeholder input, for monitoring, adapting, and improving the program
• Checking data in feedback reports for accuracy
	• Administrative and project management
	• Assessment
	• Communication
	• Engaging stakeholders
	• Learning from others

Monitoring program implementation and status	**Other skills in this set**
• Reading, interpreting, and modifying feedback reports • Observing and assessing program use of evidence-based care strategies, compliance with policy and overall fit with organizational context • Assessing facilitators and barriers to program implementation, including leadership support, staffing, staff competencies, demand for services and other resources	• Assessment • Developing a program monitoring system • Problem identification and solving

Knowledge Needed to Facilitate Implementation

To learn and apply the implementation facilitation skills described above, IRFs needed knowledge of: (a) PC-MHI care models and how PC-MHI programs function, (b) implementation facilitation roles and processes, (c) implementation science, quality improvement, and organizational change processes, and (d) VA policy, structures and context that could affect implementation of PC-MHI programs. Rather than conducting a formal didactic training process, the EEF provided the information they needed within the context of facilitating PC-MHI implementation over approximately two years.

The EEF believed that it was important for the IRFs to acquire broad knowledge about PC-MHI and explicitly discussed some of the information she conveyed (see Table 12).

Table 12. *Knowledge of PC-MHI the EEF Transferred*

- Evidence for PC-MHI generally and for specific PC-MHI care delivery models
- Effects of PC-MHI programs on clinical outcomes, costs, and provider satisfaction
- VA PC-MHI policy requirements
- Components, similarities and differences, and pros and cons of PC-MHI care models
- Differences between PC-MHI and traditional specialty mental health care
- How PC-MHI programs function, e.g., how patients move through processes of referral and treatment
- How others have adapted PC-MHI programs to local context

In the previous section, I described implementation facilitation roles and processes IRFs learned. The transfer of implementation science, quality improvement, and organizational change process knowledge was embedded within the application of IF processes. In fact, the EEF believed that in training IRFs, she was "disseminating implementation…science to the field." For example, when transferring organizational and individual assessment skills, the EEF identified barriers and targeted implementation strategies to address them. She transferred knowledge of VA policy, structures and context similarly. For example, a number of our study sites struggled with local policies that hindered implementation of brief mental health assessments, a component of PC-MHI. The EEF provided IRFs with information about and modeled how to use appropriate channels to seek clarification on related national VA policies and advocate for change, if needed. For example, one IRF, reported:

> I learned…about implementation research and about implementation science in general. I've learned about quality improvement, and I've learned about the processes for making or initiating or implementing various interventions and programs even.…I've learned about, okay, what techniques do you want to use to provide information, what techniques do you want to use to get buy-in, what tools do you want to use for monitoring, and how do you want to provide these feedbacks...I've learned tremendously about implementation research as well as pure implementation of a clinical program and what factors should be occurring in everything that comes into play, all of the players and the stakeholders.

Over the approximately two and one half years in which the EEF mentored and trained IRFs, IRFs learned many complex and overlapping sets of skills and how to apply them to

facilitate implementation of PC-MHI or other innovative programs. Next, I present the techniques and processes the EEF used to help IRFs develop these skills.

Techniques and Processes for Transferring Knowledge and Skills

This section presents findings that address the second research question "What techniques and processes can experts use to help internal change agents learn implementation facilitation knowledge and skills?" Throughout the process of helping new facilitators become IF experts, the EEF observed and assessed IRF efforts in order to modify and adapt her own. Based on my inductive analysis of debriefing and interview data, I developed the model shown in Figure 4 below. Although some concepts in the model have been examined by other scholars, other concepts and the structure of the model are novel and thus a major contribution of the current study. The other techniques the EEF applied fit into two broad categories, primary methods and supportive techniques or learning supports. First I describe the techniques in each of these categories the EEF utilized and how her use of these methods changed over time. Because patterns in how facilitators interacted with each other and with stakeholders supported the learning process, I then present those patterns and how they changed over time.

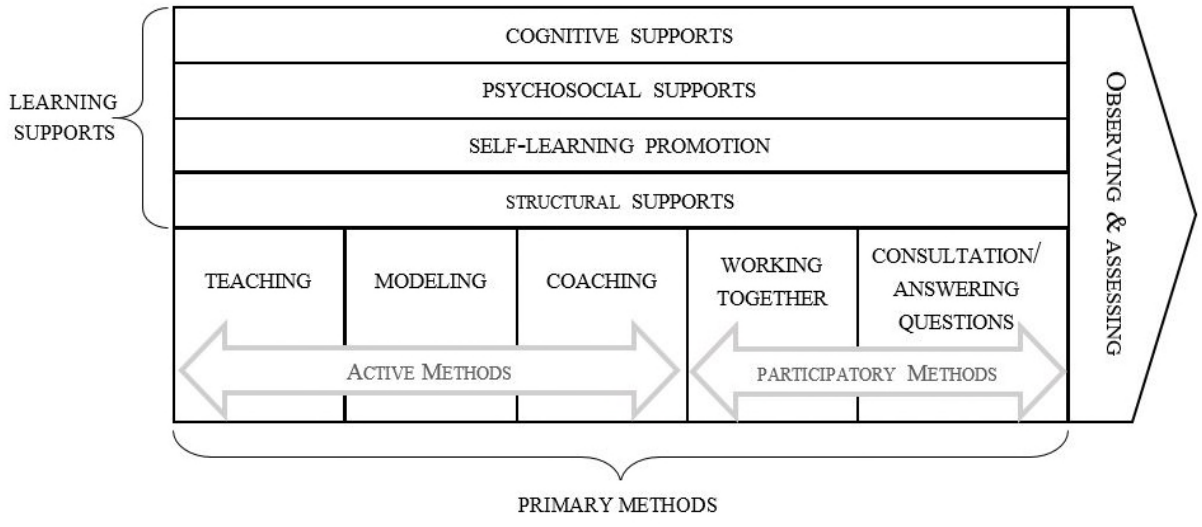


Figure 4. Techniques and Processes the EEF Utilized to Help IRFs Learn

Primary Methods

Primary methods were the techniques and processes that the EEF applied to directly transfer knowledge and skills to IRFs. They consisted of active methods, i.e., those the EEF purposefully initiated to train IRFs, and participatory methods, those the EEF used in response to IRF requests or needs. Table 13 contains a brief description of each technique and I provide more detail below.

Table 13. *Primary Methods the EEF Utilized to Support Transfer of IF Knowledge and Skills*

Active methods	
Teaching	Providing content or process information directly
Coaching	Providing information, including suggestions and advice, on how to conduct IF activities for the purpose of transferring skills
Modeling	Conducting IF activities in the presence of IRFs
Participatory methods	
Working together	Providing information or coaching during the process of collaboratively conducting IF activities
Providing consultation	Providing information or coaching in response to IRF requests

Active methods. The EEF used three active methods to transfer IF knowledge and skills, providing instruction or teaching, modeling how to facilitate implementation, and coaching IRFs on how to conduct IF activities.

Teaching. Particularly in the beginning of her work with IRFs, the EEF provided new information about concepts and processes, generally during conference calls with one or both IRFs. I refer to this as "teaching" when it seemed to be for the purpose of providing information to increase IRFs' knowledge rather than for the purpose of developing their skills. She rarely describes using this technique after the first three months. It may be that the EEF did more teaching than she discussed during debriefing interviews. However, one of the IRFs thought that additional instruction might been helpful. She said, "it would have been very helpful to me to

have had a much more intensive...I want to say...knowledge and information from the very, very beginning of the process."

Modeling. The EEF performed IF activities while IRFs watched and reported that her approach was that "the external facilitator does everything until the internal facilitator is ready except, you know, the internal facilitator finds out things about the site." When using this technique, the EEF described her efforts both as facilitation activities to help sites implement PC-MHI and as modeling activities to help IRFs learn how to perform facilitation activities. Although the EEF utilized modeling throughout the process of working with IRFs, she used it most frequently in the period from approximately two to eight months after she first began working with them. During this time period, the EEF modeled engaging stakeholders, conducting presentations for education and marketing purposes, assessing site resources and barriers to implementation, developing and adapting an implementation plan, establishing and conducting learning collaboratives among PC-MHI clinical staff members, and developing a system for program monitoring and quality improvement. Although the EEF described modeling as a means of helping IRFs to learn certain skills, one of the IRFs felt that the EEF had also modeled how to "be." She said, "So I have seen from her the modeling of how to be, I think, a very efficient, high powered but yet person centered and warm leader."

Coaching. Most scholars generally describe coaching as providing information about how to perform a task, monitoring task performance and providing encouragement and feedback to support learning. Because the EEF used the last two activities with and without the first one, I have separated them and use the term "coaching" only for providing information, including suggestions and advice, about how to perform a task. Generally, the EEF used modeling first so that IRFs could see how to perform IF activities. Later, when she felt that IRFs were ready to

perform them with assistance, she used coaching to help them develop the skills they needed. However, for some of the less complex skills, particularly those which only IRFs would be performing, the EEF did not model first. Instead, she coached IRFs on what to do. For example, the first IF activities involved gathering information about clinics and their current practices and scheduling site visits. The EEF coached IRFs throughout these processes to guide their efforts. When IRFs were going to perform IF activities that the EEF had already modeled, the EEF generally coached them prior to their performance. She also utilized coaching after IRFs performed an IF activity to reinforce learning and to help IRFs understand how to generalize what they learned to other settings or circumstances. One of the IRFs described the value of coaching in helping her to learn how to influence change:

> I think by her [The EEF] sort of coaching, given each of the distinct, individual situations…learning from her…well this is how I would approach it, or this is what we need to do and sort of learning how to navigate within those systems but yet not coming across as critical, but coming across as being more helpful, to influence change.

Participatory methods. When IRFs no longer needed such direct methods and began to develop IF skills, the EEF continued the training process by working collaboratively with IRFs or providing consultation when IRFs requested it.

Working together. At times, the EEF and IRF would plan activities together, work together to identify problems and solve them, brainstorm how processes might be improved, or strategize about what needed to happen next at sites. During the first year, the EEF and IRFs worked together on less complex processes such as accessing data to develop performance feedback reports for sites. The EEF described her general process of working with the sites after the first year as:

> ….and then it would just be status reports on the sites. You know, I would ask questions about how things were going and then we'd develop a plan of what we need to do, or

> what they perceived as barriers, or if they have any concerns. Yeah we would go through each site and talk about it.

One of the IRFs said, "it has also switched…to…more of a collaborative, we're working on this and less of a, I am mentoring you through this." Although the process of facilitating implementation became increasingly collaborative over time, the EEF continued to use some of the learning supports described throughout the project.

Providing consultation. As IRFs continued to develop their skills, they conducted more of the IF activities independently but consulted with the EEF as needed. Interestingly, the EEF spoke little about this process. However, during the first interviews with IRFs, approximately 18 months after the EEF had started working with them, both IRFs identified the ability to obtain consultation as one of the most important aspects of the EEF's work with them. IRF A said, "I think having somebody that is very knowledgeable that… if I get stumped…I can call…I think having a knowledgeable, credible, and approachable resource." IRF C said, "Really I think it's just that...having someone to turn to…[a]s well as you know the ability to just consult with her whenever I needed to." One year later, both still reported that this was one of the most important aspects of their learning process.

Learning Support Techniques

In addition to the active and participatory methods for directly transferring IF knowledge and skills, the EEF used different types of techniques to support IRFs' learning processes. Table 14 identifies four types of learning supports and below I describe specific techniques for each type.

Table 14. *Types of Techniques the EEF Utilized to Support Learning*

Cognitive supports	Techniques to help IRFs understand, apply and generalize IF processes: sharing experiences and telling stories, making thinking visible, using comparisons to clinical skills and activities, and using heuristics or rules of thumb
Psychosocial supports	Techniques to build and enhance IRFs' sense of competence, identity as a facilitators and effectiveness: acceptance, confirmation and support, providing protection, facilitating exposure and visibility and promoting IRF interests
Promoting self-learning	Techniques to support IRFs' assessment, planning and learning skills: encouraging articulation and, encouraging learning from others
Structural supports	Techniques for providing IRFs with opportunities to learn skills: different venues, using teaching moments, encouraging and empowering IRFs to take on new roles, stepping in and stepping out, and pulling back and fading

Cognitive learning supports. Cognitive learning supports are techniques that the EEF used to help IRFs understand, apply and generalize IF processes. These techniques support the transfer of both explicit and tacit knowledge.

Sharing experiences and telling stories. The EEF reported that she started her relationship with IRFs and oriented them by sharing experiences from a previous EEF role. She said,

> I talked about what we had done in [the other network]... I didn't tell them everything at once but….I gave a lot of examples of what we did so...since we had already done it in thirteen sites with one team, I built upon the relationship [the other network's IRF] and I had to describe that.

The EEF regularly guided IRFs, often via email, in this way. For example, one of the IRFs was considering providing clinical supervision to a site PC-MHI provider. Based on her personal experience and the experience of a colleague, the EEF believed that facilitators providing clinical supervision can have negative consequences, particularly for continuity of patient care and program sustainability. The EEF described these experiences to the IRF. She then also talked about applying this lesson at another site by insisting on and facilitating identification of local

staff to provide clinical supervision. In addition to using this technique directly with IRFs, she also used it with site leadership and staff, modeling for IRFs the power that telling stories and sharing experiences could have in transferring knowledge and engaging stakeholders.

Making thinking visible. The EEF frequently used another cognitive learning support, making thinking visible, particularly after modeling how to perform IF activities. She explained to IRFs why she did things in a particular way. The EEF suggested that this would help IRFs learn how to facilitate implementation under those circumstances as well as generalize what they were learning to similar situations. Facilitators used this technique after site visits and conference calls with stakeholders. For example, after one chaotic site visit meeting in which a very negative stakeholder was particularly argumentative and the EEF had applied multiple facilitation strategies, the EEF reviewed what had happened with the IRF and explained what she did and why she did it, thus making her thinking visible. The EEF also used this technique during email communications with site leaders and staff. When there was a lesson the EEF wanted an IRF to learn, she would send a separate email to the IRF, explaining why she was responding to stakeholders in a particular way.

Using comparisons to clinical skills and activities. Both IRFs had clinical backgrounds and training in mental health settings. The EEF used their knowledge of mental health conditions and experiences in identifying and treating them to help IRFs "translate" these skills for use in "diagnosing" and addressing problems that were hindering PC-MHI implementation. Because sites had been selected that would be unable to implement PC-MHI without assistance, it is not surprising that facilitators encountered multiple barriers to implementation including resistant stakeholders and destructive interpersonal and organizational dynamics. The EEF

sometimes compared the process of assessing problems at sites to clinical diagnostic skills and the process of facilitating a chaotic meeting "as similar to doing a treatment group."

Using heuristics or rules of thumb. Finally, the EEF shared her own heuristics or rules of thumb. To help IRFs deal with challenges over which they had no control, the EEF suggested, "You get dealt the cards; make it into best hand you can" and "Look at what you have and then play to it." She used this heuristic to help IRFs learn how to work with PC-MHI providers who were accustomed to providing traditional mental health services and had difficulty changing their practices to briefer PC-MHI assessment and treatment models. She also used it to help IRFs realistically assess sites and site stakeholders to adapt PC-MHI models to their needs and resources. One of the IRFs reported that when she felt discouraged about implementation progress, she reminded herself of this heuristic. Relatedly, the EEF encouraged IRFs to "work with sites where they are." For example, they went to one clinic to review their implementation plan but site staff were unable to stay focused on this topic. The EEF used this heuristic later to help the IRF understand why the EEF did not review the plan but instead helped site staff address local problems that were of greater concern to them. She used a similar heuristic with one of the IRFs after a site meeting in which the EEF had turned off the PowerPoint presentation she had prepared and "drew pictures" for meeting attendees. She told the IRF later that when something was not working, "don't plow ahead with your plan." Another heuristic she frequently used with IRFs was, "use similar others as models." The EEF began teaching the IRFs early in the process of working with them and repeatedly reinforced that people need to hear how others, similar to themselves, address problems successfully. The EEF used this heuristic when coaching IRFs on how to establish a learning collaborative, on how to organize a

network-wide PC-MHI meeting and on how to act as "experts" for each other in areas where one of them had developed expertise.

Psychosocial learning supports. A variety of techniques enhanced IRFs' sense of competence and identity as facilitators, as well as their effectiveness.

Acceptance, confirmation and support. The EEF praised IRFs when they had good ideas or applied IF strategies appropriately. She provided confirmation when IRFs accurately diagnosed site problems, supporting IRF perceptions of what was happening at sites. She provided ongoing support throughout the learning process and both IRFs noted that she was available whenever they needed her. When IRFs felt discouraged, the EEF reported she provided "supportive counseling" by talking through what was happening and helping IRFs problem-solve.

Providing protection. The EEF "protected" IRFs from making mistakes by conducting IF activities until IRFs were ready to conduct them. Once IRFs assumed a role, e.g., leading a meeting with stakeholders, the EEF only stepped in and took over when she felt that IRFs did not know how or were not ready to handle complex problems. On one occasion in advance of a meeting, an IRF provided stakeholders with a document that had a critical tone. The EEF had concerns that stakeholders would focus on whether or not the document was true rather than the issues at hand. When, as the EEF had feared, the meeting began to flounder, she assumed leadership and modeled a more positive approach, reinforcing site strengths. She also coached IRFs on techniques they could use to enlist her protection if they felt they needed it. For example, at one meeting an IRF conducted, the EEF suggested that the IRF ask the EEF, "What are your thoughts?" or "Do you want to say more?" if the IRF felt that she was "getting into trouble."

Facilitating exposure and visibility and promoting IRF interests. The EEF called leadership and site staff attention to IRFs' role. The EEF wanted to insure that IRF's were "*the face of the program"* and that stakeholders viewed them as credible leaders for the implementation process. She did this by deferring to IRFs at meetings and occasionally, when medical center or clinic leaders communicated directly with the EEF and failed to copy the IRF, the EEF would repeatedly add the IRF on responses. When the EEF felt that sites no longer needed her, the EEF formally said good-bye to site staff and deferred to IRFs to meet future implementation facilitation needs. One IRF recalled the EEF sending the message at her last visit to one of the sites, "you have gotten to the point where you're not needing [me] and…you still have [the IRF] here, who's right here no matter what, but you don't' need me anymore…." The EEF also facilitated IRF's exposure and visibility at the national level by insuring that IRFs were invited to national meetings and had opportunities to share their expertise.

Promoting self-learning. The EEF promoted self-learning for several purposes: 1) to support development of IRFs' assessment and planning skills and 2) to help IRFs learn how to learn. She did this in the following two ways.

Encouraging articulation. The EEF encouraged IRFs to verbalize what they understood about sites, their perceptions on what happened at site meetings, about the status of PC-MHI implementation, and about what IRFs needed to do to further facilitate implementation. The EEF started this process after the initial site visit meetings when she questioned IRFs about their thoughts on how the meeting went, who "key allies" might be, and what problems or barriers to implementation they foresaw. After later meetings and conferences calls, the EEF asked IRFs for their impressions, what they thought next steps might be and how they might address problems. The EEF also helped IRFs prepare to conduct meetings, again by asking questions

such as: "What are you expecting to find?" "What do we want to accomplish?" "What do you plan to do and how do you plan to do it?" "What will be major obstacles?" "What will we do?" By asking questions, the EEF both supported development of new skills and provided methods for continuing the learning process in the future.

Encouraging learning from others. The EEF encouraged IRFs to learn from others, both experts and peers. She acknowledged that she did not have all of the content expertise IRFs needed to facilitate PC-MHI implementation at their clinics. She linked IRFs to content experts either by arranging for experts to meet directly with IRFs or by referring IRFs to experts who could provide consultation. Additionally, the EEF had never been an IRF and thus encouraged IRFs to obtain materials and learn from "similar others," i.e., each other, the IRF that the EEF had previously trained, or PC-MHI leaders and providers in other networks.

Structural learning supports. Finally, the EEF used a number of different techniques and processes to structure opportunities for IRF learning.

Different venues. Initially, the EEF scheduled weekly meetings to coach IRFs on how to conduct IF activities. Within approximately three months, the EEF began to meet with them individually on a weekly basis but continued joint meetings because they were learning from each other. She also conducted informal meetings as needed. Within approximately four to five months, the EEF reported attendance on joint calls was variable and IRFs did not always need to meet with her individually. By that time, IRFs were calling each other. In addition to planned meetings, the EEF used email and brief telephone communication to support their learning. One IRF said,

> We use a various number of methods from the regularly scheduled phone contacts, and that's been key, but she's also been available if anytime out of the blue I call her and she may out of the blue call me. And I would say we probably email...I don't want to say continuously but let's say frequently.

Using teaching moments. Throughout the process of helping IRFs learn IF skills, the EEF assessed their individual needs and took advantage of what she called, "teaching moments." For example, to help one of the IRFs modify her interpersonal style to be more supportive, the EEF took advantage of multiple opportunities to model and coach the IRF on how to more positively reinforce site efforts rather than point out their weaknesses.

Encouraging and empowering to take on new roles. Although the EEF admittedly conducted most of the initial activities to facilitate implementation, she started her work with IRFs by charging them with gathering information about sites and their current practices. Within several months, she was encouraging, empowering and sometimes "pushing" IRFs to take on other new roles as they were ready. For example, she pushed one IRF to facilitate the end of a meeting so that site staff would view the IRF as a leader of the implementation effort. She encouraged both IRFs to become the expert on their sites' and VISNs' interpersonal and political dynamics and how to assess and monitor them. She also encouraged them to assume responsibility for leading meetings with leadership and staff. When facilitators were setting up network-wide learning collaboratives of PC-MHI providers, both IRFs were inclined to bring in experts to "teach" providers. The EEF encouraged them to assume a different role by facilitating communication among the providers, encouraging those who were further along in implementation processes to share what they had learned with others who were still struggling. This was a new role for IRFs, one that the EEF was not sure they would have assumed without her encouragement. The combination of encouragement to assume this role and coaching helped IRFs develop a new set of skills.

Stepping in and stepping out. The EEF used the technique of stepping in (e.g., to say something or assume leadership) and stepping out (e.g., to hand leadership back to the IRF) as a

way of protecting IRFs from making mistakes or reinforcing other lessons they were learning. The EEF suggested that this process involved "….knowing when you get out of the way and just hold your breath, you know, versus when you continue to kind of keep your hands on and be there standing in the corner to step in if you need to."

Pulling back and fading. To promote IRFs' assuming responsibility for facilitation activities and leadership of the implementation process, the EEF utilized the technique of pulling back and fading. Although generally, the EEF described this as becoming "increasingly less involved" and stepping back and watching IRFs, she also described occasions when she "pushed" IRFs to perform facilitation activities that the EEF had been performing. One of the IRFs said,

> You know so it was like she…instead of her handling it, she would sort of advise me how to handle it. So I would say that she probably…made the shift in working with me and it felt pretty seamless to me. I mean it didn't feel like, oh no all of a sudden I'm operating on my own.

The other IRF described it as a "handoff" and talked about how the EEF decreased her involvement with providers and contacts with the IRF.

Observation and assessment. In describing the beginning of her relationship with the IRFs, the EEF said, "So initially you understand them. You need to understand what their strengths and weakness are and what their base knowledge is." Although she talked more frequently about observing them after they assumed responsibility for IF activities, the EEF clearly monitored their progress throughout the training process and used the methods and techniques, described above, to help IRFs learn the skills they needed.

Patterns of Interaction That Supported the Learning Process

There was a pattern to the EEF's interactions with IRFs and site stakeholders that supported IRFs' learning processes. In general, changes in these interactions appeared to be a

dynamic but somewhat linear process. In this section, I provide an overview of interaction processes using graphical representations (see Figures 5-8) to illustrate changes over time. Darker arrows in the graphics indicate the EEF's interactions with IRFs. The direction of the arrow indicates if the EEF was predominantly using active methods (unidirectional arrow) or participatory methods (bidirectional arrow). It is important to note that she used both types of methods, as well as many of the learning supports across the entire process of working with IRFs. Lighter arrows in the graphics depict EEF, EEF and IRF and/or IRF's implementation facilitation activities with network, medical center, and clinic leaders and staff. These arrows indicate which of the facilitators was performing these activities.

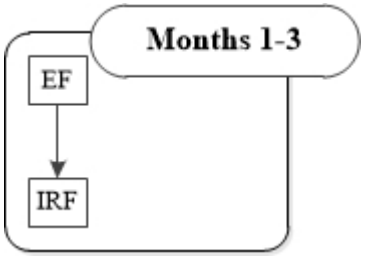


Figure 5. Patterns of Interaction: Months 1-3.

In months 1-3, the EEF used active methods (teaching and coaching) to begin training IRFs. During this period, the EEF worked with the IRF and network mental health leader to prepare for visiting local sites. The IRF interacted only minimally with site stakeholders for purposes of scheduling site visits and gathering information about sites and their current practices.

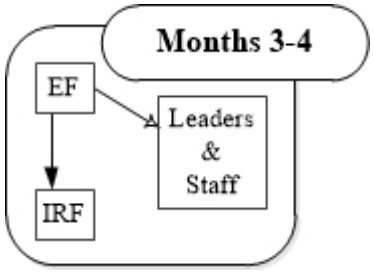


Figure 6. Patterns of Interaction: Months 3-4.

From three to four months, the EEF continued to train IRFs, predominently utilizing active methods to transfer IF knowledge and skills. Although both facilitators interacted with site stakeholders, the EEF "did everything,' i.e, she led all meetings and calls, modeling how to facilitate PC-MHI implementation.

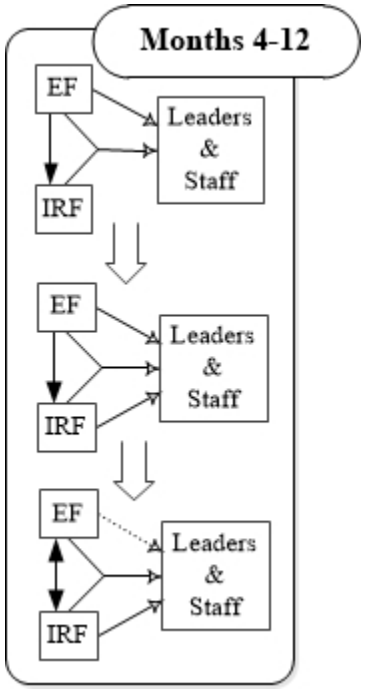


Figure 7. Patterns of Interaction: Months 4-12.

At the beginning of the period from four to twelve months, the EEF was still leading IF activities using active methods to train IRFs. At times, the EEF and IRF were interacting with site stakeholders together. By the end of the first year, IRFs were conducting some facilitation activities independently. The EEF was increasingly releasing more of the leadership role to IRFs and utilizing participatory methods to train IRFs, who needed less of the EEF's time because they had acquired some of the skills they needed. However, the EEF continued to observe and assess IRFs' activities and "chime in as needed." The trajectory for the process of changing from active to participatory methods was slightly different for the IRFs, which I will explore further in the next section.

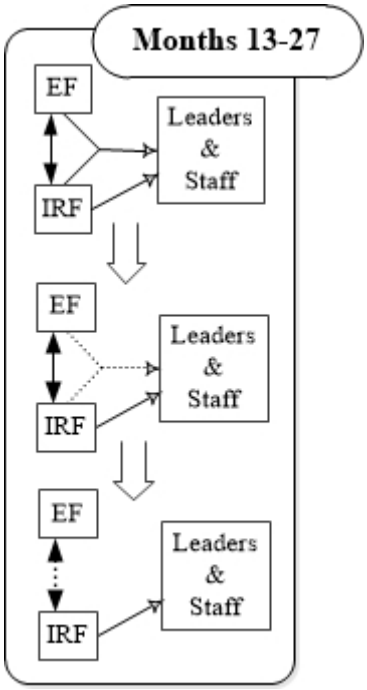


Figure 8. Patterns of Interaction: Months 13-27.

The EEF predominantly used participatory methods to continue to mentor IRFs throughout the second year. By twenty-four months, a little sooner for the IRF in network C, the EEF felt that IRFs no longer needed her input. They were able to work on their own with sites. The EEF offered to continue to be available to them for consultation if needed. The EEF's process for ending her mentoring role with each of the IRFs was different and is also described in the next section. During the period from thirteen to twenty-seven months, the EEF became increasingly less involved and was "trying to start pulling out" from the sites. She encouraged IRFs to lead site meetings and supported their efforts.

Again, there were times when she did need to "step in" to assist IRFs but increasingly held back. Because the EEF and each IRF formed a dyadic relationship and IRFs had both similar and different needs and characteristics and learned IF skills within different organizational contexts, next I present findings related to how the EEF tailored her efforts to help IRFs develop skills.

Tailoring to Needs, Characteristics and Organizational Context

This section will address the third research question, "How do experts tailor their efforts to the learning needs and characteristics of individual change agents and the characteristics of the organizational contexts within which they are facilitating change?" Although they had different training, experiences, pre-existing skills and personal styles, IRFs needed to learn similar skills to facilitate implementation of PC-MHI. Additionally, IRFs worked in very different organizational contexts at the clinic, VAMC and network levels. The EEF suggested that the roles of external and internal facilitators would be different for each team combination based on the IRF skills and the setting. Thus IRFs had both similar and different learning needs. Initially, the EEF assessed IRFs' strengths, weaknesses and base knowledge and then used a "shadowing process" to monitor IRFs and tailor her efforts to meet their particular needs over time. Above, I described the knowledge and skills the EEF transferred and the methods and techniques she used to accomplish this. Below I report findings related to: (a) how level of focus varied across skills and across IRFs, and (b) how the EEF tailored her efforts to IRF learning needs and characteristics and the organizational contexts within which IRFs were learning implementation facilitation skills.

Variation in EEF Level of Focus on Skills

The level with which the EEF focused on individual skills and clusters of skill sets varied across skills and sometimes by IRF. I rated level of EEF focus (Low, Low Moderate, Moderate,

High Moderate, and High), based on the number of instances in which the EEF described helping IRFs learn a particular skill. Table 15 below presents these ratings.

Table 15. *EEF Level of Focus on Individual Skills in Each Group of Skills by IRF*

Implementation facilitation skills	IRF A	IRF C
Communication skills	High	High Moderate
Building relationships and creating a supportive environment		
Engaging stakeholders	High	High
Interpersonal skills	High	High Moderate
Interacting and working with leaders	Low	High
Motivating and building confidence	Low	Moderate
Political skills	Low	Low Moderate
Changing the system of care and the structures and processes that support it		
Problem-identification/solving	High	High
Helping to design/adapt a program to meet local needs	Moderate	Low
Presenting and using data to improve the program	Low	Low
Integrating the program into the system	Low	Low
Transferring knowledge and skills		
Learning from experts/similar others/experience	High	High
Establishing learning collaboratives	High Moderate	High Moderate
Education and marketing skills	High Moderate	Moderate
Training/mentoring and coaching	Low Moderate	Low
Planning and leading change efforts		
Leading and managing team processes	High Moderate	Low
Administrative and project management skills	Low Moderate	Moderate
Thinking strategically and planning	Low Moderate	Low
Pulling back and disengaging	Low	Low
Meeting facilities and individuals where they are	Low	Low
Assessing people, processes and outcomes		
Assessment skills	Moderate	Moderate
Developing a program monitoring system	Moderate	Low Moderate
Monitoring implementation	Low	Low

Number of instances per rating: Low = 0-9; Low Moderate = 10-12; Moderate = 13-16; High Moderate = 17-19; High ≥ 20

Communication skills. IRFs came to their new roles with good communication skills. They were both trained clinicians, although in different fields, and had experience in providing education and presenting information to others. Yet, EEF's focus on helping them develop IF

communication skills specifically was High or High Moderate. Clearly having good communication skills was not enough. They needed to build on their existing skills to communicate about PC-MHI and how to implement it, as well as to facilitate implementation of PC-MHI.

Skill group 1: Building relationships and creating a supportive environment. Across the groups of skills, the EEF placed the most focus on building relationships with stakeholders and creating a supportive environment for change. IRFs had reputations for working well with systems and people. Yet, the EEF focused at a high level on *stakeholder engagement* and at a high or high moderate level on *interpersonal skills*, indicating that having "good people" skills was not sufficient for facilitating implementation of PC-MHI. The EEF's level of focus on the other three skills in this group was more variable across IRFs, indicating that IRFs needed different levels of assistance to learn these skills.

Skill group 2: Changing the system of care and structures and processes that support it. In Skill group 2, the EEF focused a great deal on *problem identification and solving*. Given their training and backgrounds, IRFs likely had good cognitive problem identification and solving skills in their areas of expertise. However, they lacked knowledge of implementation science, implementation facilitation, models of PC-MHI care delivery and the structures and processes needed to support PC-MHI programs. This was knowledge they needed to identify implementation barriers (problems) and address them (solutions). EEF level of focus was low on two skills in this group. It may be that developing such skills is less challenging and more technical. There was variation between IRFs on only one set of skills in this group, again indicating that one IRF may have needed more assistance to develop these skills.

Skill group 3. Transferring knowledge and skills. In the third group of skills, the EEF focused most on learning strategies and using these strategies to foster stakeholder learning. Both IRFs were inclined to seek out expert opinion and engage experts to help others learn. They needed to understand the value of learning from similar others and experiences and to develop skills using these strategies, including how to decide which strategy would be most helpful. Relatedly, the EEF's level of focus was high moderate on building learning collaboratives; neither IRF had experience in this area. Although both IRFs were experienced educators, the EEF's high moderate and moderate levels of focus on education and marketing skills indicates that IRFs needed to adapt existing skills to support PC-MHI implementation. The EEF focused least on training, mentoring, and coaching providers and leaders, likely because they had existing skills in this area and they had experience providing PC-MHI services.

Skill group 4. Planning and leading change efforts. Interestingly, unlike the skill groups I have presented thus far, the EEF did not focus highly on any of the skills in this group. She focused least on two skills that IRFs would have developed in previous training and experiences as clinicians. Her level of focus on the other three skills was variable across IRFs.

Skill group 5. Assessing people, processes, and outcomes. Finally, the EEF focused least on the last group of skills because (a) the EEF was able to build on IRFs' existing clinical assessment skills and (b) the other two skills in this group were more technical skills. Level of focus on one of these, developing a program monitoring system, may have been higher than the other because it involved accessing data generated by VA's electronic medical record system, which was challenging for both IRFs.

In summary, the EEF's level of focus on individual skills was variable across the skills and sometimes across IRFs. Cross-skill variation was related to complexity of the skill, IRFs'

pre-existing skillsets, degree to which the skill depended on knowledge of PC-MHI and implementation science, and/or degree of adaptation needed to apply the skill to facilitate PC-MHI implementation. I further explore cross IRF variation below.

Tailoring to IRF Characteristics and Needs

Background and experiences. One of the ways the EEF tailored her efforts to IRFs was by building on existing skills developed through past experiences and adapting those skills to facilitation efforts. With IRF A, an adept mental health care provider and therapist, the EEF built on her existing clinical skills saying,

> ….she had the ability to read people and their needs and current state … I really targeted…because that was her strength...so I targeted her knowledge of that and translated it to organizations. So I think the other thing that mentoring did for her was to help her use a set of existing skills and adapt them to another environment... I would repeatedly go back, well this is a lot like blah, blah, blah, blah, blah or this is similar to doing a... treatment group

The EEF also thought that it was helpful for IRF A to see the EEF model the adaptation and application of other clinical skills, e.g., by actively listening during meetings, "when there is a real tense, chaotic environment…letting everyone have a voice," and engaging stakeholders. Although IRF C also had clinical training, she had extensive experience in program quality improvement and system redesign efforts, and was inclined to address system level issues even when working with frontline staff. For example, she focused on developing trainings and interactive conferences at facility and network levels. The EEF viewed this style of facilitating implementation as valuable, although different from her own, and supported IRF C's "natural aptitude" for working at the system level.

The EEF also tailored her efforts to IRFs by focusing more on developing skills they lacked. For example, IRF A had little experience with implementing programs, conducting quality improvement efforts, or leading task oriented teams. Thus, the EEF focused more with

IRF A on learning how to lead and manage team processes than IRF C, who already had this skillset. The EEF modeled these skills and coached IRF A before, during and after team meetings and she used a variety of other techniques, such as leading meetings when IRF A was not ready (providing protection), assuming leadership when IRF A needed help (stepping in/stepping out), and encouraging IRF A to take on this new role. On the other hand, although IRF C had these skills, she had previously worked in hierarchical systems under the operational authority of leaders. Although the EEF worked with both IRFs on engaging leaders to obtain buy-in and participation in implementation efforts and on reaching out and seeking leaders' input, the EEF also helped IRF C learn how to assume a leadership role with facility and clinic leaders, provide advice and consultation and interact with them comfortably. The EEF added,

> [W]hen you go in, you're the expert at these sites so you are the person and so I think toward the end, [IRF C] assumed that role and just kind of moved very easily among senior leadership and facility level leadership.

Additionally, because IRF C had extensive experience with QI and other structured processes, the EEF said, "What I did more with her was in the early phases, and … it was more to kind of direct her toward a facilitation role as opposed to a …quality improvement step-by-step process." The EEF emphasized that IRF C did not know implementation science. Thus, without mentoring provided by the EEF, IRF C would likely have skipped some vital facilitation tasks such as, "Not ensuring that the leadership was engaged, working with the personnel at the very frontline first because that was what was natural for her. Not considering all the stakeholders that needed to be educated, not doing performance monitoring."

Interpersonal styles. The EEF also tailored the skills transfer process to IRFs' interpersonal styles of interacting with stakeholders. IRF A was thoughtful and laid back. Initially, in meetings, she was indecisive; the EEF reported it was not IRF A's style to take

charge. The EEF modeled how to lead meetings, "pushed" IRF A to lead them, coached her before and after the meetings and stepped in to lead when the IRF's slow style was a hindrance to keeping stakeholders engaged in meeting processes. Relatedly, when working with frontline PC-MHI providers, IRF A was naturally inclined to use a gentle coaching role. This was unlikely to motivate some of the providers who were resistant to or struggled with changing from delivering traditional mental health to briefer PC-MHI services. The EEF coached IRF A, as needed, on utilizing an "enforcer role" to help providers change their practices. The EEF also enlisted IRF C, who was adept at this role, to help IRF A learn skills needed to take on this new role. At the end of the study, IRF A reported what had been the most helpful to her about the mentoring process, saying,

> I have got to see a role model who is well respected in this system, who is a powerful female who knows how to interact with high level people. But at the same time she's just as comfortable and just as effective with you know front line clerks. So I have seen from her the modeling of how to be, I think, very efficient, high powered but yet person centered and warm leader.

IRF A said as a result of her work with the EEF, she had developed these skills as well.

IRF C's interpersonal style, on the other hand, was direct and somewhat abrupt. She tended to focus on negatives when providing feedback on implementation progress to site stakeholders, e.g., by telling sites what they were doing poorly. The EEF believed that, even though individuals in this network tended to communicate more directly, IRF C's interpersonal style could be a barrier to engaging stakeholders and fostering PC-MHI adoption. The EEF thus worked with IRF C to develop a more positive approach to working with site stakeholders. For example, IRF C sent a document to a site with a negative tone prior to a face-to-face meeting. Although the meeting floundered in the beginning, the EEF began praising stakeholders for what they were doing right and modeled for the IRF how to work with sites from a strength

perspective. Not surprisingly, the EEF worked more with IRF C than IRF A on skills in motivating and building stakeholder confidence. Learning how to interact in a more positive manner was salient to IRF C who, in describing how she had learned to influence change said,

> I think by her sort of coaching, given each of the distinct, individual situations…learning from her…well this is how I would approach it, or this is what we need to do and sort of learning how to navigate within those systems but yet not coming across as critical, but coming across as being more helpful, to influence change.

IRF C also said she had learned, "how to sort of provide that feedback…that's in a very positive, constructive manner. I think that was probably really, really helpful. She sort of modeled that for me…which I think was useful."

Finally, in addition to tailoring what she taught IRFs, the EEF also tailored how she interacted with IRFs to their learning styles and expressed needs. The EEF reported more instances of helping IRF A develop IF skills during the first year than IRF C and considerably more during the second year. The EEF believed that IRF A, who was young and early in her career, was less confident in her abilities and relied on the EEF even after the IRF no longer needed her. To help IRF A become independent, the EEF encouraged her to take on new roles and increasingly pulled back from performing them. Finally, after a site visit in 2011, the EEF told IRF A, "this is the last time I need to come to this site or to [this VISN]…you're ready…you don't need me…if you need me…you're going to have to call me." IRF A described what happened, saying: "She pushed me out of the nest and I sat there and stared at her saying, you're doing what?....but I think she was accurate in terms of her timing as well as the process for me." IRF A also reported that at the time, this seemed sudden but in looking back, the EEF had been giving subtle indications that the mentoring relationship was ending, including:

> ….the decreasing of her [EEF] involvement…and decreasing her involvement with the providers as well as decreasing the frequency of her contacts with me…and the frequency of calls, switching from, if we have a scheduled time…every week and then every other

> week and then to once a month and then more…we have this time set up but it's only if you need me.

Although the EEF encouraged both IRFs to take on new rolls and decreased the frequency of contacts with them, IRF C became comfortable with her new role and began acting independently far sooner than IRF A. The EEF said, IRF C "broke away more cleanly than did [IRF A] and started doing things that I would not even be cced on and then I would find out whenever we would have a meeting." During the second year, the EEF did little training and mentoring with IRF C except during one three-month period in which she helped IRF C address some particularly difficult problems at study sites. The EEF supported IRF C's learning style and interacted with her when IRF C expressed a need for assistance. This stance was not always easy for the EEF, who said,

> I know for me, I sometimes wake up in a panic because...I'm not sure I know where the site is, and then the flip side of it is I don't have to know where the site is because they know where the site is… But I wish there was a way that I didn't have to wait for information [long pause]...for a call, or whatever. And that's just kind of the nature, I think, of the beast. I wish that I could keep better tabs on the sites but then that's not my role…

Tailoring to Organizational Context

In addition to tailoring to IRF characteristics and needs, the EEF tailored the skills transfer process to the organizational context. Although the EEF occasionally focused on similar skills with both IRFs, more frequently, she worked independently with each IRF to help IRFs learn IF skills needed to respond to site and network needs.

Site specific issues. According to the EEF, some of the site leaders and staff in network A had "strong personalities" and they expressed their opinions forcefully. The EEF tailored the skills transfer process to address the combination of IRF A's initial interpersonal style and the challenges associated with influencing change as described above. In fact, the EEF began

modeling skills IRF A needed much earlier in the training process than she did with IRF C and she reported more instances of helping IRF A learn interpersonal skills. The EEF also tailored the process of helping IRF A learn to identify and address implementation barriers and challenges. Although both IRFs faced similar challenges, IRF A faced some unique challenges at three sites that had a high concentration of specialty mental health providers. Primary care providers at these sites felt that patients' mental health needs were already being sufficiently addressed and they did not perceive a need to change referral patterns to include the PC-MHI providers. Additionally PC-MHI providers were accustomed to delivering traditional mental health services and lacked experience with delivering PC-MHI services. At these sites, the EEF focused on identifying and addressing these challenges and helping providers change mental health care delivery and referral patterns. One site in this network had particular problems designing or adapting a PC-MHI program to fit the site, accounting for the greater number of instances in which the EEF focused on these skills compared to IRF C.

In network C, facilitators had more difficulty engaging VAMC leadership to support PC-MHI implementation, some of whom were very resistant to changing delivery of mental health services to PC-MHI models of care. The higher number of instances in which the EEF focused with IRF C on interacting and working with leaders was due in part to this issue, as well as to IRF C's past experiences. As previously discussed, the EEF helped IRF C learn a wider variety of skills in this set, e.g., providing advice and consultation to leaders and taking a power stance when necessary. She also focused more on developing related skills, i.e., motivating and building confidence and political skills, which IRF C needed to address these challenges. Finally, the EEF taught IRF C to be persistent when working with site leaders, to "….doggedly pursue... to not give up, … to expect disappointment, to…expect no and be happy when you got

yes the first time and to always have a plan B when you got no." The EEF tailored the process of helping IRF C learn to identify and address implementation barriers and challenges. Although IRF C had to identify and address providers' and leaders' lack of perceived need for PC-MHI, the causes of these problems, as well as the implementation interventions needed to address them, were different than for network A sites. In several sites, facilitators had to address problems related to significant and ongoing competing demands on PC-MHI providers, e.g., requiring that they conduct full mental health assessments and then triage and refer patients to specialty mental health care, covering for mental health providers when they were absent or had left, or providing traditional mental health services to address specialty mental health clinic backlogs.

Network context. The EEF also tailored her efforts to the organizational context at the network level. Network A had existing infrastructure support for PC-MHI implementation although the model of care delivery this network had been supporting was not compliant with VA policy mandates. Network A also had a strong mental health service line structure that supported PC-MHI implementation and had some ability to influence change at the VAMC and site levels. However, there had been some tension among site personnel and leaders around the need to have input into the structure and processes of site PC-MHI programs that existing infrastructure did not support or allow. The EEF taught IRF A, who was associated with the existing infrastructure support for PC-MHI, how to establish credibility with VAMC and site stakeholders. She modeled and coached IRF A on identifying and addressing problems related to these issues, as well as on helping adapt the existing infrastructure to support implementation of VA mandated PC-MHI care models.

Network C, in the other hand, did not have existing infrastructure support for PC-MHI, which may have, in part, influenced IRF C's inclination to work at the system level to provide education and training for site personnel. In fact, in Network C the culture generally supported facility's rights to determine the programs they would implement and how they would implement them. Additionally, network leaders had a strong collaboration with a VA Veterans Engineering Resource Center (VERC), located in the network, which endorsed an industrial engineering approach. Thus, personnel in this network, including IRF C, were accustomed to using step-by step quality improvement processes. This was another factor that influenced the EEF to train IRF C in applying evidence-based implementation strategies but then pulling back to allow IRF C to break away and work independently, using processes that fit with organizational culture in this network.

In summary, the EEF sought to help IRFs learn a wide variety of skills they needed to foster implementation of PC-MHI, or other new programs. However, the process of facilitating implementation of PC-MHI programs with fidelity but customized to context and need is different for each site. Additionally, novice implementation facilitators have different pre-existing skill sets developed in previous training and experiences. They also have personal characteristics and traits that influence how they learn and operationalize what they learn, as well as how they interact with others and attempt to influence change. The EEF thus tailored the content and process of transferring skills to IRF characteristics and needs, as well as the context of implementation efforts across organizational levels.

Summary

This chapter presented the major findings of this qualitative descriptive case study of implementation facilitation knowledge and skills and the techniques and processes experts can

use to transfer them to healthcare system change agents who are IF novices. My analysis identified twenty-two complex skills that the expert facilitator for the Blended Facilitation project helped novice facilitators learn. Twenty-one of these fit into five skillset groups: a) building relationships and creating a supportive environment, b) changing the system of care and the structures and processes that support it, c) transferring knowledge and skills to stakeholders, d) planning and leading change efforts, and e) assessing people, processes and outcomes. My analysis also revealed that most IF skills overlap with one another.

I also found that the EEF used a wide variety of techniques and processes to help IRFs learn implementation facilitation skills. She initially assessed IRF backgrounds and characteristics. Generally, with a few exceptions, she started by teaching or modeling skills and later switched to coaching and participatory techniques. She used a variety of other techniques to support IRFs' learning, as well as a dynamic process of interacting with IRFs and site stakeholders so that over time, IRFs assumed responsibility for facilitating PC-MHI implementation. The process of facilitating implementation of PC-MHI programs with fidelity but customized to context and need was different for each site. Additionally, novice implementation facilitators had different pre-existing skill sets developed in previous training and experiences. They also had personal characteristics and traits that influenced how they learned and operationalized what they learned, and how they interacted with others and influenced change. The EEF thus tailored the content and process of transferring skills to IRF characteristics and needs, as well as the context of implementation efforts across organizational levels.

CHAPTER 5: DISCUSSION AND CONCLUSIONS

Facilitation, a multi-faceted strategy that incorporates other implementation interventions, is widely utilized to help healthcare systems, especially those that lack QI knowledge and resources, successfully implement evidence-based programs and policies. Scholars agree that facilitators need a wide variety of skills to apply and adapt these interventions to support successful implementation. Although a number of studies have identified activities facilitators perform, only a few studies have attempted to identify the skills facilitators need and no studies have explored techniques and processes for transferring these skills from experts in facilitation to healthcare system change agents. This study addresses that gap.

This chapter provides an overview of the study, discusses key findings that address the study's research questions, how findings support or are supported by current literature, and how they fill gaps in the literature. I then discuss the study's limitations and strengths and explore implications of findings for practice and policy, as well as recommendations for future research.

Overview of study

The purpose of this study is to explore how IF experts can help healthcare system change agents, who lacked IF experience, acquire the knowledge and skills needed to facilitate implementation of evidence-based practices and programs. To address this purpose, I conducted content analysis of data previously collected from an expert external facilitator and two internal regional facilitators who supported implementation of evidence-based PC-MHI programs mandated by a VA policy initiative. The expert had transferred implementation facilitation knowledge and skills to the initially novice internal regional facilitators. This study explored what knowledge and skills the EEF transferred and how she transferred them, i.e., what

techniques and processes she utilized and how she tailored her efforts to characteristics and needs of IRFs and the organizational context. A review of IF literature informed the exploration of IF knowledge and skills. Because no studies had explored how IF skills were transferred, a review of literature about other methods that foster learning through social interactions informed the exploration of how the EEF transferred knowledge and skills to IRFs. Data analysis included both inductive and deductive methods.

Discussion

Implementation facilitation knowledge and skills

Not surprisingly and in agreement with the literature (Dogherty et al., 2013; Harvey et al., 2002; Rycroft-Malone, 2004; Stetler et al., 2006), the expert facilitator in this study helped novice facilitators learn a wide variety of knowledge and skills, including twenty-two skills and four areas of knowledge. The facilitation literature describes and operationalizes some of the skills identified in this study, e.g., communication skills, leading and managing team processes, and assessment skills. Other skills, e.g., interpersonal skills, political skills, and marketing skills, are mentioned in the literature but not well-operationalized. In addition to providing rich descriptions of how these previously identified skills can be operationalized, the current study also identified and operationalized several IF skills not previously mentioned.

One of these skills, *interacting and working with leaders*, is a complex set of skills facilitators need to obtain leaders' buy-in, support, and participation in implementation efforts. Scholars have long agreed that leadership support is necessary for successful implementation and sustainability of innovations (Aarons et al., 2015; Greenhalgh, Robert, Macfarlane et al., 2004; Gustafson et al., 2003). Facilitators need some of the skills in this set, e.g., communication, interpersonal and stakeholder engagement skills, to work with other kinds of stakeholders.

However, to interact and work with leaders, facilitators need a unique skillset that combines these as well as other skills. Many of the facilitation activities we identified in the Blended Facilitation project (Parker et al., 2016), as well as those Dogherty et al. (2012) identified, involve interacting and working with leaders, e.g., assisting with the development of an action plan, helping to build infrastructure and processes to support staff, advocating for resources and change, problem-solving, and capacity building. In this study, the EEF focused specifically on helping IRFs learn how to comfortably interact and work with leaders to perform those activities in ways that supported successful implementation.

Learning from experts, similar others and experiences is another set of skills that was not identified in previous literature. Novice facilitators in this study were naturally inclined to seek out expert guidance when they needed additional knowledge. The EEF guided them in developing other learning strategies such as seeking the input of others who had only recently successfully facilitated similar changes and learning from experiences in one site in order to apply them to another. Studies of expertise and the differences between experts and novices suggest that experts learn in very different ways than novices (Daley, 1999). Experts also know more about who has information, how to obtain it, and how to utilize it (Farrington-Darby & Wilson, 2006). In order to become expert facilitators and continue to support EBPP implementation in complex, continuously changing healthcare systems, novice facilitators need to become skilled at applying expert learning strategies (Collins et al., 1991) so that they can continue to hone IF skills. It may be that scholars have not previously mentioned learning skills because they have focused on skills needed to build healthcare system capacity and support implementation directly.

Pulling back and disengaging and *meeting facilities and individuals where they are* were other skills identified only in this study. It may be that the EEF focused on helping IRFs learn these skills because they were salient from her own clinical training and background as a mental health provider and she valued these as skills that can support behavior change.

In addition to communication skills, five over-arching skillsets emerged out of the content analysis. No other studies have sought to identify a comprehensive list of skills facilitators employed in a particular study. In addition to our own work for the Blended Facilitation study (Parker et al., 2016), several scholars have identified a comprehensive list of facilitation activities and categorized these into types of activities (Dogherty et al., 2012; Harvey & Kitson, 2015). Both categorizations are organized by stages or phases of the implementation process though both sets of scholars, in agreement with others (Nutley et al., 2003; Pichler & Beenan, 2014), acknowledge that implementation is not linear. One categorization organizes IF activities into: planning for change, leading and managing change, monitoring progress and ongoing implementation, and evaluating change (Dogherty et al., 2012). The other categorization includes: clarify and engage, assess and measure, action and implementation, and review and share (Harvey & Kitson, 2015). Both classifications and the activities they include support the need for two of the overarching skillsets identified in this study, *planning and leading change efforts* and *assessing people, processes and outcomes and creating infrastructure for program monitoring*. Although these two groups of skills sound similar to activity categories, the skill categories identified in this study are not organized by stages or phases. For example, facilitators apply assessment skills across implementation processes.

The work of these and other scholars supports the need for the other broad skillsets identified in this study. For example, implementation scholars generally acknowledge the

necessity of building relationships with stakeholders to support implementation (Bidassie et al., 2015; Dogherty et al., 2012; Harvey et al., 2011; Stetler et al., 2006). This affirms the need for novice facilitators to develop a skillset for *building relationships and creating a supportive environment*. Additionally, education and training strategies are widely utilized in implementation efforts and some scholars suggest that the training and coaching of staff is a core component of implementation (Fixsen et al., 2005). For these efforts, facilitators need a skillset for *transferring knowledge and skills and creating infrastructure to support ongoing learning.* Most lists of facilitation activities include problem-identification and solving, designing and adapting an implementation plan and utilizing data to improve implementation. For these activities, facilitators need a skillset for *changing the system of care and the structures and processes that support it*. Finally, as previously discussed in chapter two, literature clearly affirms the need for communication skills. This study supports the work of other scholars but moves beyond their work to suggest that communication skills are part of many of the individual skills identified in this study and thus a component of all of the larger skillsets.

Another key finding of this study is that IF skills are very complex. Although other scholars have sought to identify and to a limited extent describe IF skills, none have explored this complexity or its implications for training novice facilitators. By identifying and examining skills the EEF helped IRFs learn, both in depth and over time, and comparing task and behavioral components across skills, I was able to explore this complexity. I use the plural form of the word skill because skills generally and IF skills in particular include multiple activities and components. For example, an established body of communication research and theory suggests that communication skills include many specific tasks and behaviors, e.g., listening, presenting information, clarifying and confirming, persuading, and asking and answering questions (Hargie,

2006). None of these are simple tasks on their own. In addition to being able to perform each of these tasks well, skilled communicators also utilize metacognitive strategies to select the appropriate tasks, monitor the processes and outcomes, and alter or change tasks to improve communication processes (Hargie, 2006). Similar to communication skills, each of the other skills identified in this study include multiple potential tasks and behaviors, as well as metacognitive strategies, i.e., how to select what needs to be done and how and when tasks and behaviors need to change to maximally facilitate implementation.

In addition to the complex nature of each of the identified skills, most IF skills are not unique or distinct. In this study I found that many skills or components of skills are also components of other skills. I mentioned previously that many of the other skillsets included communication skills. For example, assessment skills, a set of skills widely held to be important for facilitating EBPP implementation, include elements of communication skills, i.e., the ability to ask questions and clarify and confirm answers. Similarly, scholars describe interpersonal skills as having components of communication skills (Kahn et al., 1979). Scholars do not agree on all of the components of interpersonal skills (Pichler & Beenan, 2014) and the overlap between these two sets of skills is emphasized by the significant literature on interpersonal communication (Braithwaite & Schrodt, 2015). Thus, literature about these three skills supports their relationship to one another. Interestingly, one or more of these three skills, communication, interpersonal, and assessment, are components of almost every other set of skills identified in this study. Significantly, many scholars identify these three as core IF skills (Harvey et al., 2002). As presented in chapter four, there is widespread overlap among IF skills. This study is the first to highlight this characteristic of IF skills and contribute toward conceptual clarity about them.

Finally, consistent with literature describing non-procedural knowledge facilitators need, the expert facilitator in this study transferred knowledge of IF, implementation science, QI and change management (Elnitsky et al., 2015; Grumbach et al., 2012; Taylor et al., 2013), as well as knowledge of the organizational context within which implementation efforts were conducted (Harvey & Kitson, 2015). In some implementation efforts, facilitators initially help sites identify gaps in care, locate sources of evidence, critically appraise literature, and then help sites plan implementation of relevant EBPPs (Dogherty et al., 2013; Elnitsky et al., 2015). In such cases, facilitators may not have a great deal of content knowledge and rely on the expertise of others. The Blended Facilitation study was an enhancement of a policy implementation initiative that included evidence-based PC-MHI care models. Given the complexity of PC-MHI programs and the healthcare systems implementing them, as well as the mandate for change, I believe it would have been impossible for facilitators to support implementation without considerable knowledge of PC-MHI. The EEF seldom explicitly discussed non-procedural knowledge she was helping IRFs learn. The transfer of this knowledge was embedded within the processes of helping IRFs learn IF skills and it was evident from IRFs' descriptions of their activities that they had assimilated this knowledge from the EEF. The EEF believed that she was disseminating implementation science to the field and IRFs independently maintained that they had learned implementation science from her.

On the other hand, scholars have suggested that it is important for facilitators to learn about implementation science and change management theories (Dogherty et al., 2013; Multi-jurisdictional Collaboration, 2006; Stewart et al., 2010). Although the EEF's efforts were informed by theory, with the exception of providing IRFs with information about the PARIHS framework and PARIHS tenets about the relationship between evidence, context and facilitation

(Rycroft-Malone, 2004), she did not explicitly talk about providing IRFs with knowledge of other theories and models of change. Many scholars believe that when such knowledge informs implementation efforts, they are more likely to be successful (Sales et al., 2006).

Techniques and processes for transferring IF skills

Reviews of literature spanning the years from 1966 to 2010 repeatedly affirmed that we know little about how to help novice facilitators learn IF skills (Baskerville et al., 2012; Dogherty et al., 2010; Harvey et al., 2002; Nagykaldi et al., 2005). Scholars suggest novices may learn by working with external facilitators who help them develop skills (Stetler et al., 2006), by trial and error, or by participating in more structured facilitation training programs (Harvey et al., 2002). Facilitation experts have developed a wide variety of training materials that are publicly available for use by individuals or in training programs. These materials focus most on what facilitators need to learn. They contain little detail about the techniques and processes experts can use to help novice facilitators learn and no studies have explored these. Thus, this study fills an additional gap in the implementation literature. By exploring other bodies of literature for how experts help novices learn complex knowledge and skills and using both inductive and deductive analysis methods, this study identified twenty techniques and processes and created a novel model of the types of techniques that can help novices learn IF skills.

Given the number and complexity of skills novice facilitators need to learn, it is not surprising that the EEF utilized so many different techniques to transfer these skills. In chapter two, I acknowledged that because IF skills include both explicit and tacit components, didactic instruction is not sufficient to transfer these skills. Findings from this study support that contention. Nonaka (1994) suggested that knowledge is created through the conversion of tacit

knowledge to tacit and explicit knowledge and through the conversion of explicit knowledge to both other types as well (pp. 18-19). Mechanisms needed for conversion are different for these modes. For example, tacit knowledge is converted to tacit knowledge through observation; thus, modeling is a core technique for accomplishing this conversation. The conversion of tacit knowledge to explicit knowledge, a process Nonaka calls externalization, is often done using metaphors and analogies. Thus, some techniques identified in this study, i.e., sharing experiences and telling stories, using comparisons to clinical skills, and using heuristics, are techniques useful for transferring expert tacit knowledge to explicit knowledge for the novice facilitator. Another technique identified by this study, making thinking visible, is also a way of externalizing tacit knowledge. In Nonaka's model, explicit knowledge can be converted to tacit knowledge by internalization. The technique of coaching supports this process. As novices do what experts suggest and then receive feedback on their performances, experts' explicit knowledge is converted to novice tacit knowledge. Finally, the conversion of explicit knowledge to explicit knowledge is accomplished through a process of exchanging and combining knowledge between individuals. The two participatory techniques identified in this study, working together and providing consultation, support the creation of knowledge by combining the explicit knowledge of the expert and the novice.

None of the bodies of literature on mentoring, coaching and cognitive apprenticeship I explored contained all of the techniques and processes revealed by a synthesis of these literatures. Although I found evidence of most techniques and processes in mentoring and cognitive apprenticeship literature, these two concepts are very different. Mentoring is a general term that is frequently used to describe a wide variety of activities for multiple purposes, sometimes for the transfer of knowledge and skills. The mentoring literature is fragmented with

three primary streams and other more discipline specific streams. Techniques and processes mentors utilize vary across these streams. Cognitive apprenticeship, on the other hand, is by definition, an "instructional paradigm" or "theoretical framework" (Nickle, 2007). Techniques and processes are a component of this framework, as are types of knowledge required for expertise, e.g., meta-cognitive strategies for making decisions about what techniques and processes to use as well as learning strategies (Dennen, 2004). These and other concepts from this framework have been influential on this study. For example, scaffolding is a cognitive apprenticeship metaphor for supports, tailored to learner needs, that experts put in place to help students acquire skills. This concept informed my thinking throughout the analysis process about the role of many of the techniques and processes the EEF used and how they supported learning, e.g., by promoting self-learning or by utilizing structural mechanisms. Cognitive apprenticeship has been a useful model for transferring other complex skills (Feinstein et al., 2015; Woolley & Jarvis, 2007) and may be useful, in combination with other findings from this study, for planning, implementing and evaluating efforts to transfer IF knowledge and skills. Several other processes supported the transfer of IF knowledge and skills. Similar to mentoring relationships, the dynamic nature of interactions between the EEF and IRFs and between facilitators and stakeholders supported the learning process. Mentoring research has identified four phases or stages of mentoring relationships, initiation, cultivation, separation, and redefinition (Bozeman & Feeney, 2007; Kram, 1983). This study identified a more nuanced pattern of interactions that included facilitators' interactions with stakeholders and incorporated patterns in application of techniques and processes the EEF utilized. Within these patterns of interactions, the EEF tailored both content and process to IRF characteristics, needs, interpersonal style and the organizational context.

Study Limitations and Strengths

The results of this study should be considered within the context of study limitations. Several limitations may affect generalizability of study findings to other facilitation training efforts. First, there was only one expert transferring IF skills, and her training and background likely influenced what and how she trained the novice facilitators. Second, facilitators were supporting implementation of a policy initiative that included a mandate for implementation. This may have influenced the types of skills novice facilitators needed to learn. Third, the skills transfer process occurred in VHA primary care clinics. Although the clinics were under-resourced and lacked capacity for QI efforts, VHA is a large integrated healthcare system with resources that facilitators could leverage during the implementation process. Independent primary care clinics, e.g., clinics participating in the Safety Net Medical Home Initiative (Coleman et al., 2014), may not have such external resources or have different ones. Because this study afforded me the opportunity to conduct an in-depth exploration, I sacrificed generalizability of study findings to gain richness in the description of IF knowledge and skills and skills transfer methods. This richness will allow others to build on this work.

Additionally, there are many approaches to implementation facilitation. By design, the Blended Facilitation project utilized an intensive facilitation strategy in which facilitators did everything possible to maximize the successful implementation of a very complex program, PC-MHI, in clinics that would have experienced significant implementation challenges without facilitation. Thus, novice facilitators had to learn a broad range of complex skills and the expert had to employ an equally broad range of techniques and processes to support their learning. Some IF approaches are more restrictive (e.g., Bidassie et al., 2015) and/or the innovation being implemented is less complex. There are likely core skills that all facilitators need but other skills

that they need for particular implementation efforts. Identifying which are core facilitation skills and which are the ones needed for PC-MHI and other complex program implementation was beyond the scope of this study. This study was also limited in another way by the design of the Blended Facilitation project. Reliance on the expert's report of her efforts to help IRFs learn IF knowledge and skills with only minimal input from IRFs about these processes may have prevented me from learning about additional skills that IRF's believed that they learned. Thus, study findings focus predominantly on what the expert believed she was transferring.

However, findings should also be interpreted within the context of study strengths. This was the first study to document the skills transfer process as it occurred. Previous studies have identified implementation facilitation skills through literature reviews (Dogherty et al., 2010; Harvey et al., 2002) and eliciting facilitators' retrospective reflections on the skills they utilized (Dogherty et al., 2012; Dogherty et al., 2013; Stetler et al., 2006). This study was very different. Although I utilized those methods, I additionally explored monthly documentation of an expert facilitator's efforts to help novice facilitators learn IF knowledge and skills. Using both deductive and inductive methods to analyze this data, I was able to create a longitudinal and rich description of the IF knowledge and skills the expert helped novices learn as well as the techniques and processes the expert utilized to support the learning process.

Although no studies have explored techniques and processes experts might utilize to transfer IF skills, I conducted an extensive review of literature about other learning relationships, mentoring, coaching and cognitive apprenticeship, that support the transfer of complex skills. It is likely that this allowed me to identify and describe methods the expert utilized with more specificity than had I relied only on inductive methods. This review greatly enhanced findings that addressed the second research question.

Finally, to mitigate the potential for bias and to enhance my understanding of the data or the analysis process, at various times during the analysis process, I also consulted with the organizational scientist and expert in qualitative methodology with whom I had collected and analyzed the Blended Facilitation project data.

Implications for Practice, Programs and Policy

Findings from this study have multiple implications for directors of facilitation programs, expert facilitators seeking to transfer their skills to internal change agents, healthcare systems seeking to build internal capacity for EBPP implementation, individuals within healthcare systems who are tasked with an IF role but who are inexperienced in IF processes, and policy designers planning for wide scale implementation of EBPPs. Findings suggest that implementation facilitation requires a large number of complex, overlapping skills, the application of which must be adapted to local needs and resources as well other contextual characteristics, particularly when sites lack resources and capacity for implementation efforts. Such a wide array of skills that include both explicit and tacit dimensions can only be transferred with the help of IF experts. Directors of facilitation programs will need to plan curricula accordingly and ensure that novice facilitators have sufficient opportunities to learn from experts. Findings from this study can inform experts, those who are trainers in formal facilitation programs as well as those who are working with internal change agents for clinical or research initiatives, on the scope and complexity of IF skills. Findings also provide comprehensive information about the skillsets facilitators need. This can inform planning for the skills transfer process as well as evaluating new facilitators' learning. This study also has implications for the level at which experts focus on particular skills and sets of skills. For example, prevailing wisdom is that new facilitators should have good communication and

interpersonal skills (Seers et al., 2012). However, this study suggests that even when new facilitators have these skills, they still may need significant help learning how to apply and adapt those skills to support implementation processes. In addition, novice facilitators' interpersonal styles, which cannot be assessed in a classroom environment, may be counterproductive and need the help of an expert to change. Having a better understanding of skills facilitators need and processes for training new facilitators can also inform the efforts of healthcare system leaders wishing to build IF capacity and policy designers who want to incorporate IF as a policy tool. Finally, individuals tasked with IF roles will benefit from knowing what skills they need to develop and how they can best develop those skills, i.e., by seeking the help of others who have IF expertise.

The findings have additional implications for those planning IF programs or helping novice facilitators develop IF skills. Experts training new facilitators need more than IF knowledge and skills. They need a toolkit of diverse techniques and processes and they need to know how to adapt their efforts to the characteristics, existing skills and needs of the novice facilitators they are training. In other words, in addition to IF skills, experts desiring to transfer those skills need to know how to facilitate learning. Study findings can inform the development of those skills as well. The combination of the description of techniques and processes experts can use, the model of the types of techniques and how they support learning processes, and the descriptions of interactional processes that support skill development can help IF program directors and experts training new facilitators to plan and evaluate those efforts.

Finally, as discussed in chapter two, IF training materials are now publicly available. AHRQ developed some of these to support the establishment of Primary Care Extension Programs and the training of facilitators for those programs. We also developed an IF training

manual based on the experiences of facilitators in the Blended Facilitation project. Experts have utilized this manual to initiate training of VA and non-VA researchers and clinical operations personnel (Kirchner, Ritchie et al., 2014; Ritchie et al., 2014). Most IF training materials, including our own, focus on IF activities within the context of linear implementation processes. The addition of information about IF skills, skills facilitators need across implementation efforts, could supplement existing information and moderate the implication in training materials that implementation is linear. The addition of findings about techniques and processes for the transfer of IF skills would also be a significant contribution to these materials.

Conclusions and Future Directions

This study extends the implementation science knowledge base about the knowledge and skills facilitators need to help healthcare systems, particularly ones that lack capacity for facilitating change on their own, to implement evidence-based practices and programs. It is also the first study to explore how experts can transfer such knowledge and skills to healthcare system change agents. Because facilitation strategies are increasingly applied in clinical and research initiatives, these findings can potentially improve implementation of evidence-based practices and programs and ultimately the delivery of healthcare. However, additional research is needed.

First, this was an intensive facilitation strategy. Facilitators applied numerous other implementation interventions to address significant implementation challenges. Because there is a broad range of potential facilitator roles based on the purpose of facilitation (Harvey et al., 2002; Liddy et al., 2013) and the organizational context, knowledge and skills facilitators need likely vary also. Some facilitation approaches are prescriptive, i.e., implementers determine the number and type of interventions facilitators will utilize in advance, yet improve implementation

(Bidassie et al., 2015). It may be that there are core components of facilitation that would improve implementation of many EBPPs in most settings. Understanding what these are and the related core set of skills facilitators need to apply those components could allow us to more efficiently train facilitators and plan for implementation efforts.

Second, when the Blended Facilitation project's expert began working with novice facilitators, she did not have access to IF training materials, if indeed such materials existed. Thus, the expert facilitator provided information and skills training as needed throughout the implementation process. We do not know how or if formal training in advance might impact the skills transfer process. Many IF programs conduct such training (Johnson et al., 2014; Knox et al., 2011) and in fact, the Blended Facilitation project's EEF and one of the IRFs, who is now an expert, have conducted formal training in advance of implementation efforts numerous times (Kirchner, Kearney et al., 2014). Further research is needed to explore how formal training affects the skills transfer process. Combining formal training with expert facilitated learning may be more or less efficient or effective in helping inexperienced facilitators to learn the skills they need.

Third, as previously discussed, some scholars suggest facilitators need to understand implementation science and organizational change theories (Stewart et al., 2010). The EEF in this study did not explicitly focus on theory, although theory informed her activities and the procedural knowledge she imparted to IRFs. IRFs learned what activities to perform and how to perform them from the EEF, as the need for them arose. Knowledge of implementation science and organizational change theories can inform an understanding of how and why interventions are successful (Sales et al., 2006). We do not know if providing inexperienced facilitators with knowledge of theory and how to select implementation interventions based on theory can

improve implementation facilitation outcomes or impact the process of transferring skills. Future research should explore these issues.

This dissertation study contributes to a small body of implementation knowledge about the transfer of IF knowledge and skills to healthcare system change agents. Although we need to know more about how to accomplish this, findings from this study have broad applicability and practicability.

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Appendix A. Office of Research Compliance Protocol Letter

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

January 20, 2016

MEMORANDUM

TO:	Mona Ritchie Brinck Kerr
FROM:	Ro Windwalker IRB Coordinator
RE:	PROJECT CONTINUATION
IRB Protocol #:	14-01-398
Protocol Title:	*Transferring Implementation Facilitation Knowledge and Skills to Improve Healthcare Delivery Systems*
Review Type:	☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB
Previous Approval Period:	Start Date: 01/27/2014 Expiration Date: 01/26/2016
New Expiration Date:	01/26/2017

Your request to extend the referenced protocol has been approved by the IRB. If at the end of this period you wish to continue the project, you must submit a request using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. Failure to obtain approval for a continuation on or prior to this new expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

This protocol is closed to enrollment. If you wish to make *any* modifications in the approved protocol, including enrolling more participants, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

109 MLKG • 1 University of Arkansas • Fayetteville, AR 72701-1201 • (479) 575-2208 • Fax (479) 575-6527 • Email irb@uark.edu

Appendix B. Examples of Facilitation Training Curricula and Resources

Title/Year	Developer(s)	Link
Guiding Facilitation in the Canadian Context: Enhancing Primary Health Care (2006)	Department of Health and Community Services, Government of Newfoundland and Labrador	https://www.gnb.ca/0053/phc/pdf/Facilitation%20Guide%20-%20English.pdf
Integrating Chronic Care and Business Strategies in the Safety Net: A Practice Coaching Manual (2009)	MacColl Center, Improving Chronic Illness Care (ICIC), RAND, and California Healthcare Safety Net Initiative; supported by AHRQ	http://www.ahrq.gov/sites/default/files/publications/files/coachingmanual.pdf
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Primary Care Practice Facilitation Curriculum (2015)	Mathematica Policy Research, supported by AHRQ	https://pcmh.ahrq.gov/sites/default/files/attachments/pcpf-complete-curriculum.pdf
The CEPC Practice Coach Curriculum	University of California San Francisco Center for Excellence in Primary Care and CareOregon	https://cepc.ucsf.edu/practice-coaching