Change Agents at Work

Change Agents at Work:

Brokering Boundaries

By

Elizabeth A. VanDeusen

Cambridge Scholars Publishing

Change Agents at Work: Brokering Boundaries

By Elizabeth A. VanDeusen

This book first published 2021

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN (10): 1-5275-6303-0
ISBN (13): 978-1-5275-6303-2

"It is important to honor the people who allow themselves to be representatives of something larger in our society. Their return is very small compared to what they give us."

—Isabel Wilkerson, "Telling True Stories," 2007, p. 33

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

CHANGE AGENTS IN EDUCATIONAL COMMUNITIES

I seek to facilitate change
encouraging, acknowledging and celebrating changes
positive interactions
posing questions
listening first, talking second
offering my resources and support
trying to tailor my response and support
presuming positive intentions
skilled, facilitated conversation
developing trusting relationships
This can be difficult.

It is often said that said change is the only constant and yet, as the quote that begins this chapter illustrates, change can be difficult. This quote, and the insights found at the beginning of each chapter in this book, represent poetic representations of quotes from real change agents, in real contexts, who I've had the honor to work with in a variety of initiatives. Communities are important units of our culture, and they have influence upon their members, other communities, and those who would seek to impact them. The term community itself can be used in different contexts, fields and disciplines, and in relation to different theoretical perspectives (Eraut, 2002). In ecology, a community represents all living organisms within a defined geographic area; politically, communities are viewed as interest groups and include religious, ethnic, and cultural concerns. An occupational community is defined as one that reflects the concept of a career grounded in a group's orientation and social identity related to the work they do, such as a farming or medical community (Van Maanen & Barley, 1984). In education, terms such as team, task force, professional teaching community, and learning community are used, often interchangeably, to describe a kind of group membership that represents the work and product

of what is perceived to be a positive and productive entity, designed to bring meaning and progress to a group or organization. The varied use of the concept of community and its importance in the lives of individuals and in wider society make it a topic in need of continued and further investigation.

Communities in Education

In education, the development of learning communities is receiving focused, intense attention after decades of more individualistic and isolated teacher practice (Little, 1990; Lortie, 2002). For example, professional learning communities (Blankstein, 2004; DuFour, DuFour, Eaker, & Karhanek, 2004; Fullan, 2007), critical friends groups (Bambino, 2007) and lesson study (Fernandez, 2002; Lewis, 2002) are three widely used community-building initiatives in education with the overriding goal of raising student achievement with more collaborative joint work. School reform is also receiving urgent attention as the educational community continues to investigate and implement various school improvement models in efforts to reach all children and prepare students for life and work in ever changing times (Tyack & Cuban, 1995; Tyack & Tobin, 1994). Within most school improvement and reform models (Hamilton, Shanley, Dailey, & McInerney, 2003; Isaia, 2006; Miles, Saxl, & Lieberman, 1988; Morrison, Russell, Dyer, Metcalf, & Rahschulte, 2014), change agents of various titles and affiliations work to leverage change and shifts in the teaching and learning at educational sites: “Their role seems crucial, because such school improvement programs, taken seriously, require much time and care, are an effort to change the school as an organization, and usually have to compete with the ordinary demands of keeping school running” (Miles et al., 1988, p. 158).

This book sheds light on the important role of change agents within school reform. It is important for several reasons. First, it uses the theory of Communities of Practice (Lave & Wenger, 1991; Wenger, 1998), supported by social capital (Bourdieu, 1986; Coleman, 1994; Lin, 1999, 2001; Putnam, 1993, 1995) and social network theory (Cross & Parker, 2004; Gladwell, 2000; Granovetter, 1973; Milgram, 1967; Pink, 2005), as a thinking tool for examining educational communities. Secondly, it uses the rich context of a large-scale reading initiative to provide an authentic context to study change. Finally, it focuses on the change agents working in this initiative and their unique role as boundary brokers between state and local education communities.

Communities of Practice

A Community of Practice (COP) is "a group of people who share a concern, set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4). The origins of the COP framework can be traced to the work of Scribner and Cole (1981) as they studied the literacy of the Vai community in Liberia. They started their study using a cognitive model yet found this model inadequate to capture the intricacies of this community. They turned to anthropology and adapted methods that allowed them to formulate a "practice account" (p. 234) of this community's literacy. The work of Barbara Rogoff and Jean Lave (Lave, 1977, 1982, 1988; Rogoff & Lave, 1984) extended the focus on groups, their practice and the impact of context on thinking. Their work is considered interdisciplinary with the overriding theoretical umbrella remaining cognitive with some influence from socio-cultural theory.

While most of this early work spotlighted group functioning in the wider community, Lauren Resnick (1987) put the focus directly on schools in her 1987 American Educational Research Association Presidential address. She called into question the organization of schools and how schools were "discontinuous in some important ways with daily life and work" (p. 13). She described schools as a special kind of community that needed to be reorganized to take into account what was being learned about the nature of competence in our daily lives. From this address came a flurry of research essays and articles about situated cognition, situated learning, and cognitive apprenticeship (Brown, Collins, & Duguid, 1989a; Palincsar, 1989; Rogoff, 1990; Wineburg, 1989) with an understanding that cognition needed to be studied in a social context.

Brown, Collins, and Duguid (1989b) took up Resnick's challenge as they described what goes on in schools as perpetuating a culture of school participation rather than a culture of authentic reading or math, for example. They argued that activity, concept, and culture are interdependent and that both knowledge and learning are situated and, because of this, traditional schooling is fraught with problems:

> Unfortunately, students are too often asked to use the tools of a discipline without being able to adopt its culture. To learn to use tools as practitioners use them, a student, like an apprentice, must enter the community and its culture. (p. 33)

It is in this article that Brown, Collins, and Duguid speak of communities of practitioners, and this appears to be the first mention of a COP-like concept in the literature.

Lave and Wenger (1991) co-authored the book, *Situated Learning: Legitimate Peripheral Participation*, that returned the focus to the wider community, and this work explicitly introduced COP and the notion that learning concepts evolve from apprenticeship to situated learning to communities of practice. Their goal was to articulate what it was about apprenticeship that was compelling as a learning process. In this work, Lave and Wenger used their ethnographic studies of Yucatec midwives, Vai and Gola tailors, naval quartermasters, meat cutters, and non-drinking alcoholics involved in Alcoholics Anonymous as examples of how communities of practice use apprenticeship to perpetuate, develop, and sustain practice. All of these sources provide the historical roots for Etienne Wenger's (1998) book, *Communities of Practice: Learning, Meaning, and Identity*, which is considered the seminal work on the topic. The book provides a detailed account of the COP theory which is heavily influenced by social learning theory and anthropology.

Wenger, like Brown and Collins, conducted research at the Institute for Research on Learning in Palo Alto, California, where the COP ideas germinated during this period. Wenger et al. (2002) produced a later work that offers advice on fostering COP to improve economic competitiveness. Parallel fields such as activity theory and sociolinguistics also influenced this line of research and were occurring simultaneously with the COP evolution. What emerges over the past 25 years is a progression from a theoretical model with a psychological focus in a social context to a model that is predominantly social.

In his work, Wenger (1998) states that his model is rooted in social learning theory; this theory claims that people learn from observing other people and these observations take place in a social setting. In the field of psychology, behaviorists originally investigated how people learn through observation. Bandura (1977) extended the theory to include interaction and cognitive processes, and social learning theory is considered a bridge between behaviorist and cognitive learning theories. This theory asserts the three variables, 1) the person, 2) behavior, and 3) the environment, all influence one another. Self-efficacy and self-regulation are also key to the model. As Bandura states:

> Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action. (Bandura, 1977, p. 22)

The situated learning model put forth by Lave and Wenger (1991) that serves as the foundation of COP is categorized as a more radical form of social learning theory that places the acquisition of knowledge in social relationships and in situations of co-participation in a community of practice. This theory is interdisciplinary, influenced by cognitive theory, sociocultural theory, anthropology, activity theory, and sociolinguistics.

Social Capital

Another important element related to COP is social capital which is highlighted in this section. According to Cohen and Prusak (2001), social capital "consists of the stock of active connections among people: the trust, mutual understanding, and shared values and behaviors that bind the members of human networks and communities and make cooperative action possible" (p. 4). Social capital is a concept developed primarily in the field of sociology with interdisciplinary influences from economics, urban studies, and political science. Building on the idea that capital reflects resources available in a society, such as financial capital (money and assets) and physical capital (materials and products), social capital is a way of understanding the more intangible resources available for access in a community. It is characterized by members with shared values and built on a distribution of trust among members. These resources are available for access and use in our daily lives. In addition, social networks play a key role in social capital as people connect through their unique networks and connections which constitute resources and, therefore, capital. This membership in networks coupled with shared community values represents the essence of social capital. In the simplest terms, relationships matter and serve as a resource for both individuals and groups. Field (2003) asserts that, like other forms of capital such as human and physical, social capital represents the investment, accumulation, and exploitation of resources with both positive and negative consequences.

Social Networks

A growing body of work is emerging from the field of social network theory that supports the important concepts in COP and social capital theories. In his book *The Tipping Point*, Malcolm Gladwell (2000) describes a type of networker he calls a Connector who sees the strength of weak ties (Granovetter, 1973, 1983) where many friendly yet casual social acquaintances represent a source of social power. Building on the work of Stanley Milgram (1967) who developed the concept of six degrees of separation through his study using a chain letter, Gladwell asserts that this concept doesn't mean everyone is linked to others in just six steps. In reality, Gladwell believes a very small number of people are linked to everyone else in a few steps, and the rest of us are linked to the world through those Connectors. Gladwell hypothesizes that this type of connecting skill may be something intrinsic to a Connector's personality and/or a combination of curiosity, energy, confidence, and/or social skills.

Pink (2005) articulates the concept of a boundary crosser in his account of the type of thinking and creativity needed for work and human development in the future. These boundary crossers possess expertise in multiple arenas and not only cross boundaries but also identify opportunities and make connections between them. Pink asserts that this crossing ability resides in people with very wide backgrounds, diverse minds, and a range of life experiences. Their work is a type of pattern recognition that is best done from a multidisciplinary viewpoint. Pink points out another interesting talent of these boundary brokers in an idea uncovered by psychologist Mihalyi Csikszentmihalyi (1996). Individuals who possess this talent often transcend traditional gender role stereotyping, and this provides them with unique advantages: "A psychologically androgynous person in effect doubles his/her repertoire of responses and can interact with the world in terms of a much richer and varied spectrum of opportunities" (Csikszentmihalyi, 1996, p. 17).

Cross and Parker (2004) use their research on social network analysis to illustrate the hidden power of social networks. These networks, they argue, help organizations develop a sense-and-respond capability that has a substantial impact on performance and innovation. Benefits also accrue from well-connected networks between organizations. The authors advocate for organizations to take a cross boundary view as well as foster collaboration across the internal hierarchy. This boundary spanning plays an important role in brokering information and bridging expertise from group to group. Cross and Parker caution, however, that "boundary

spanners are rare because most managers don't have the breadth of expertise, the wealth of social contacts, and the personality traits necessary to be accepted by vastly different groups of people" (p. 74).

Change Agents in Education

The unique role of educational change agents is characterized by complex work with multiple clients while simultaneously providing services responsive to the unique needs of each entity. It can be difficult to find the right educators for these roles, because the demands are so varied. They must possess the commitment and capacity to do the work, as well as wear multiple hats with regard to responsibility and numerous time constraints. In addition, these services are best delivered to schools through a variety of entry points and are largely dependent on the specific needs, priorities, and work climate of local and state agencies (Hamilton et al., 2003). Miles et al. (1988) described the change agent role as a crucial leverage point for the success of school improvement programs, and they believe that any effort devoted to careful empirical analysis of key change agent skills, systematic training of change agents based on that analysis, and wide diffusion of such training methods could provide substantial benefits.

Giroux (1993) theoretically described the role that educators could play as cultural workers and boundary crossers in order to translate the meaning of schooling. He expanded the traditional range of cultural workers from artists and writers to include those working in education where these workers bridge the gap between pedagogy and politics to give contextual meaning to the practices being implemented. Giroux provides further change agent insights when he asserts that pedagogy cannot be separated from the construction and organization of the knowledge, values, and social practices that are brokered at specific sites:

> Pedagogy is less about providing a universalized set of prescriptions than it is about rewriting the relationship between theory and practice as a form of cultural politics. This means respecting the complexity of the relationship between pedagogical theories and the specificity of the sites in which they might be developed. (Giroux, 1993, pp. 3–4).

The Context for this Work

The Reading First (RF) initiative in the United States served as the context for this study. The Reading First legislation is part of the Elementary and Secondary Education Act (ESEA) signed into law on January 8, 2002 (U.S. Department of Education, 2001). The basic premise of Reading First (U.S. Department of Education, 2002) was that all of America's children can learn to read well by the end of third grade when given instruction that is tailored to their needs. The Reading First initiative builds on the findings of years of scientific research which, at the request of Congress, were compiled by the National Reading Panel (National Institute of Child Health and Human Development, 2000). In Reading First, federal dollars were spent on scientifically-based programs and practices. Funds were targeted to improve student achievement and enhance teacher quality through extensive professional development, and this initiative was implemented in all 50 United States and the United States territories.

Eligible applicants included local education agencies (LEAs) that had 40% or more students, or 50 or more students failing the state assessment in the low category on the 4th grade Reading test. Eligible districts also had one of the following:

- 15% or more, or 1,000 or more students from families with incomes below the poverty line; or
- Location in a geographic area designated as an Empowerment Zone or Enterprise Community; or
- 50% or more, or 8 or more buildings in school improvement status for reading.

Reading First required implementation of a competitive grant process to eligible districts for the purpose of providing professional development to all kindergarten through grade three classroom teachers and all kindergarten through grade twelve special education teachers. This professional development must provide information on the five essential components of reading instruction: phonemic awareness, explicit phonics, vocabulary instruction, oral reading fluency, and comprehension instruction. In addition, this legislation requires that states provide assistance to eligible districts on the selection and use of materials programs, strategies, and instruction that are based on scientifically based reading research. The state education agency (SEA) in this study uses the following required mechanisms in their approved grant to support implementation:

- A full-time, locally hired literacy coach to support teacher development and grant implementation;
- A daily, uninterrupted literacy block that is 90 minutes or longer in duration;
- Weekly grade level meetings for classroom teachers and support staff; and
- A SEA-assigned Reading First Facilitator who provides ongoing technical assistance to funded buildings; each facilitator works across approximately six schools and support coaches, principals, and the educational community.

How This Context Was Studied

A mixed-method descriptive case study was used to investigate the role of the Reading First Facilitator (RFF) as a technical assistance provider within the context of this state education agency's (SEA) Reading First grant program. This study provides an in-depth examination of this role by studying a smaller group of RFFs (n=6) within the context of one funded local education agency (LEA). Reading First schools are, by eligibility, chronically underperforming districts with various kinds of stress on the district caused by isolation, declining enrollment, and social capital issues (See Appendix B for specific grant assurances that outline grantee requirements). RFFs, the focus of the study, serve as boundary brokers who, by being involved with the schools in a regular basis, build a foundation of trust and growing networks, thereby increasing their own social capital, as well as that of the educators they serve. RFFs help to increase the social capital in the communities they serve by facilitating internal district communication and program implementation as well as access to a wider state network of educators (See Appendix C for the state's organizational chart and Appendix D for posted RFF job description). This study's research questions are as follows:

1. What skills do RFFs bring to their roles as technical assistance providers?
2. How do RFFs develop their skills during the course of their work?
3. How do the concepts of boundary (objects, encounters, and brokering) influence the work of RFFs?

The study site was a large, urban school district or local education agency (LEA), in a Midwestern state. LEA is the term used for a local school district. It occurred over five months during the school year as this LEA

was entering its sixth year in the Reading First grant program. The primary participants in this study were purposely selected because they represent six RFFs working within the same district. The data sources for primary participants were as follows:

- A survey of RFF strengths;
- Resume review;
- Monthly Field Interaction Log analysis (six months);
- Researcher Site visits;
- Semi-structured interviews; and
- A Focus Group Interview.

Secondary participants in the study represented the two groups for which the RFFs served as boundary brokers: the state education agency (SEA), also known as the state department of education, and the funded LEA. Semi-structured interviews were conducted with two SEA Reading First program representatives to gather descriptive information regarding the coordination and impact of the RFFs. LEA and school secondary participants were purposely selected to glean descriptive information from those who receive the services of RFFs; information was collected related to the role, not the individual RFFs. Semi-structured interviews were conducted with two LEA central office contacts who worked closely with the Reading First program. A focus group interview was conducted with the LEA Reading First Coaches Leadership Council, a leadership team made up of six building-based coaches who worked closely with the RFFs. Figure 1 provides a conceptual organizer for the study that represents the context and the levels of influence, and it locates the primary and secondary participants. It further represents the interaction between the grant requirements and the technical assistance provided by RFFs that will be described in this study.

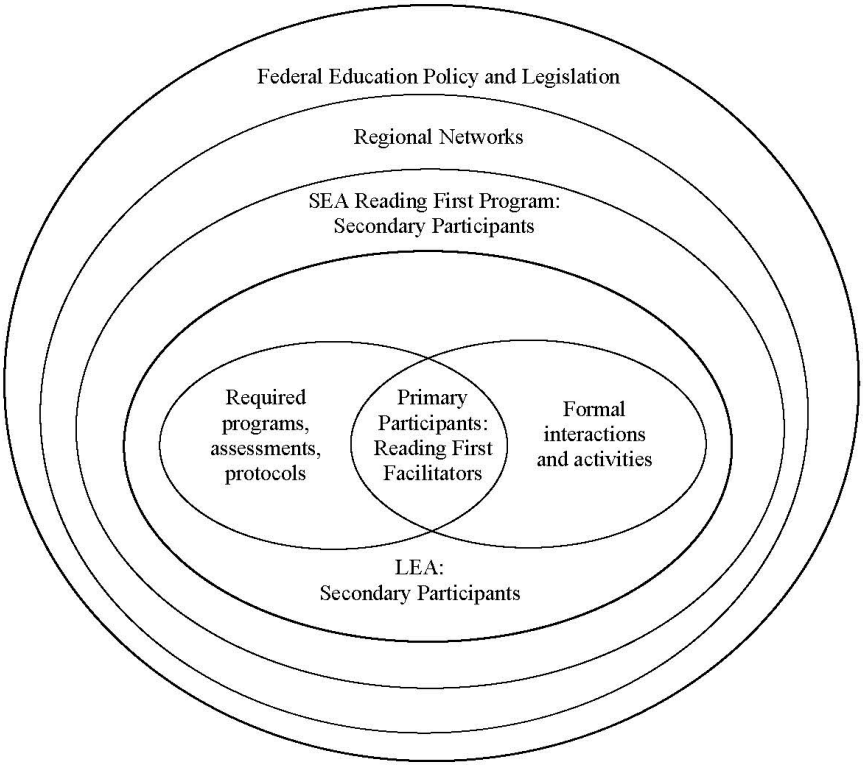

Figure 1. Study conceptual organizer.

In these chapters, the description of the six individuals working as change agents and their group functioning in this unique local context will be described and examined as well as the variety of strength profiles these change agents possess and how constellations of strengths in a group may support one another. It illuminates critical entry skills for these roles and how this group of facilitators developed and evolved over time. The study participants provide insights into the realities of this work that may validate, inform, challenge, and inspire other change agents and agencies involved in school reform. This study chronicles how technology quickly impacted this initiative and required increasing change agent expertise with each year of grant implementation. Finally, this study provides further insights into how one large scale federal literacy initiative played

out in reality at the state and local levels with the support of a technical assistance provider in one distinct context.

Key Terms Defined (listed alphabetically)

The following definitions will be used and applied throughout this text.

- **Boundary broker**: Boundary brokers are people who make connections and introduce elements of one practice into another COP. Good boundary brokers stay at the boundaries of many practices so they can use their energies to make connections and facilitate alignment between perspectives (Wenger, 1998).
- **Community of Practice (COP)**: A COP is a "group of people who share a concern, set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002, p. 4)
- **Core comprehensive reading program (CRP)**: A CRP is the initial instructional tool teachers use to teach children to learn to read including instruction in the five components of reading identified by the National Reading Panel (phonemic awareness, phonics, fluency, vocabulary, comprehension), spelling, and writing to ensure they reach reading levels that meet or exceed grade-level standards. A CRP should address the instructional needs of the majority of students in a respective school or district. (Florida Center for Reading Research, 2009)
- **External Evaluator**: According to the Reading First statute, each State educational agency must contract with an entity that conducts scientifically based reading research to evaluate its Reading First program. In addition, the Department encourages SEAs to contract with entities that also conduct program evaluations. (USDOE, 2002)
- **Facilitate**: To facilitate is to make easier or less difficult; to help forward; to assist the progress of a person or entity.
- **Implementation**: Implementation refers to the specific set of activities designed to put a practice, structure, and/or intervention fully into practice (adapted from Fixsen, Naoom, Blase, Friedman, & Wallace, 2005)
- **Implementation Fidelity**: Implementation fidelity refers to the correspondence between the practice, structure, and/or interventions

as implemented with the practice, structure, and/intervention as described (adapted from Fixsen et al., 2005)

- **Intervention**: Intervention refers to instruction provided only to students who are lagging behind their classmates in the development of critical reading skills. This instruction will usually be guided by a specific intervention program that focuses on one or more of the key areas of reading development. This type of instruction is needed by only a relatively small minority of students in a class. (FCRR, 2009)
- **Intervention Program**: An intervention program provides content for instruction that is intended for flexible use as part of differentiated instruction and/or more intensive instruction to meet student learning needs in one or more of the specific areas of reading (phonological awareness, phonics, fluency, vocabulary, and comprehension). (FCRR, 2009)
- **Local Education Agency (LEA)**: the local school district
- **Outcome Assessment**: Outcome assessments are given at the end of the year for two purposes. First, they can help the principal and teachers in a school evaluate the overall effectiveness of their reading program for all students. Second, they are required in Reading First schools to help districts evaluate their progress toward meeting the goal of every child reading on grade level by third grade. Schools must show regular progress toward this goal to continue receiving Reading First funds. (FCRR, 2009)
- **Progress Monitoring**: Progress monitoring assessments keep the teacher informed about the child's progress in learning to read during the school year. These assessment results provide a quick sample of critical reading skills that will inform the teacher if the child is making adequate progress toward grade level reading ability at the end of the year. (FCRR, 2009)
- **Reading First**: The Reading First initiative is the academic component (Title I, Part B) of the Elementary and Secondary Education Act/ No Child Left Behind (USDOE, 2001) and its purpose is to provide funds and support to schools and grades Kindergarten through third grade toward the goal of all students reading well by the end of 3rd grade.
- **Reading First Facilitator (RFF)**: Under this state's Reading First grant design, the RFF is a state Department of Education liaison who is assigned to funded buildings (no more than 7 buildings). The RFF provides ongoing technical assistance that consists of implementation support and compliance monitoring.

- Scientifically Based Reading Instruction (SBRI): SBRI is the instruction based on what SBRR has identified as five essential components of effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. To ensure that children learn to read well, explicit and systematic instruction that is purposeful, coordinated, adaptive, and data-driven is provided in these areas. (FCRR, 2009)
- **Scientifically Based Reading Research (SBRR)**: SBRR refers to empirical research that applies rigorous, systematic, and objective procedures to obtain valid knowledge. This includes research that: employs systematic, empirical methods that draw on observation or experiment; has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review; involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn; relies on measurements or observational methods that provide valid data across evaluators and observers and across multiple measurements and observations; and can be generalized. (FCRR, 2009)
- **Screening Assessment**: A screening assessment is an inventory that provides the teacher a beginning indication of the student's preparation for grade level reading instruction. It is a first alert that a child may need extra help to make adequate progress in reading during the year. (FCRR, 2009)
- **Social Capital**: "Social capital consists of the stock of active connections among people: the trust, mutual understanding, and shared values and behaviors that bind the members of human networks and communities and make cooperative action possible" (Cohen & Prusak, 2001, p. 4)
- **State Education Agency (SEA)**: the state department of education
- **Sustainability**: Sustainability is the ability of a program to operate on its core beliefs and values (e.g., its reading culture) and use them to guide essential and inevitable program adaptations over time while maintaining improved outcomes. (adapted from Century & Levy, 2002)
- **Technical Assistance (TA)**: building the capacity of individuals and organizations to achieve desired outcomes (Fixsen et al., 2005)
- **Technical Assistance (TA) Visits**: TA visits reflect a structure designed by this SEA that requires two-person colleague teams of RFFs to visit one another a minimum of two times per year; each facilitator hosts these visits in their own buildings and visits a

colleague at their buildings. During these visits, a team of educators, including the facilitators, coach, principal, and others (e.g., teachers, district administrators, union leadership) meets first to discuss the current data and action plan, next conducts walkthroughs in all classrooms, and then debriefs the visit as a team providing feedback and next steps. The visiting facilitator, in collaboration with the home facilitator, completes a summary narrative technical assistance report that is provided to the school and forwarded to the SEA program office.

- **Walkthrough**: A walkthrough is an organized visit to a classroom or a school to observe and support teachers and students. Some walkthroughs may be specifically collegial, as when teachers observe other teachers or when principals observe other principals. At the conclusion of the walk-through, those who have been observed receive feedback and learn how they can improve. The walk-through team creates documentation for feedback and follow-up sessions. (Ravitch, 2007)

CHAPTER TWO

THE SOCIAL NATURE OF CHANGE

I work to build background knowledge
provide assistance to teams
clarification, organization
collaboration and problem solving
positive persistence
guiding discussions
always back to the goals, the data
the big ideas of this work
collaboration toward the goal of increased outcomes
building relationships
Teams have to know why they are being asked to change.

Introduction

This chapter begins with a detailed review and discussion of research related to Communities of Practice (COP), with a specific focus on issues related to boundary. COP are groups of people who interact and work with one another over time towards shared goals through mutual engagement. Social capital and social network theory and research are then discussed and reviewed, particularly related to education. Social capital represents the active connections between group members that create local and wider networks of resources. Finally, research on educational change agents is discussed and reviewed, particularly studies that focus on these agents who work as boundary brokers in the sites they serve. These studies represent reviews of various types of assisting roles used in various school reform initiatives.

Communities of Practice

Elements of Communities of Practice

The COP theory is a product of social learning theory that states engagement in social practice is the foundational process by which people learn and form their identities. Wenger (1998) described COP as a mid-level unit of analysis "falling between minute interactions and activities and the world in aggregate" (Gallucci, 2003, p. 5) where the primary focus was not the individual or a broader social institution but the informal engagement and activities of a COP as members pursue shared goals over time. COP are defined this way: "groups of people who share a concern, set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002, p. 4).

This theory has four basic assumptions. First, people are social beings. Secondly, competence with respect to valued goals and efforts is the basis of knowledge. The third assumption asserts that knowing involves active participation in the world. Finally, learning is meant to produce meaning, which is the ability to experience the world and engagement with the world as meaningful. COP are everywhere and include a variety of social units such as families, work groups, classrooms of students, coveys of witches, divers, gangs, computer users, marginalized groups, militia, etc. Some are more formal and have official names while others do not. A key foundational concept of COP is legitimate peripheral participation which was detailed by Lave and Wenger in 1991. This concept helps explain the relations between newcomers and old-timers where participation is initially on a peripheral level and gradually increases in engagement and complexity until full participation is reached. Wenger set forth four important components that must be integrated with regard to social participation: meaning, practice, community, and identity.

Meaning. The concept of practice undergirds all aspects of the COP framework. Related to the component of meaning, practice is meaning experienced in everyday life. Two key concepts, participation and reification, contribute to practice as meaning. Participation is the active process of taking part in a COP and includes relations and interactions with other members. Reification is the process of making an abstraction into a concrete material object. It is the process of giving form to experience by producing artifacts that represent this experience; Wenger

gives examples such as entries in journals, historical records, poems, encyclopedias, recipes, and census data in his discussion of reification.

Wenger emphasized the duality of these concepts, that they are distinct yet complementary, and cannot be defined independent of one another. If participation dominates a COP, there are not enough artifacts to solidify its coordination; if reification dominates, there is little opportunity for shared experience and interaction. Wenger also described these two concepts as political levers available to COP in their attempts to shape the future. Through participation, groups may use ambition, personal authority, friendship and even charisma to advance their goals; through reification, groups may use legislation, statistics, contracts, and designs. This is why Wenger (1998) asserted, "totalitarian regimes endeavor both to burn books and restrict the right of association" (p. 93).

Practice. Talking about their practice is the source of coherence for the group. Wenger (1998) offered three dimensions related to practice within community in what he called "a locally negotiated regime of competence" (p. 137): mutual engagement, joint enterprise, and shared repertoire. In mutual engagement, Wenger illustrated that homogeneity is neither a requirement for nor the result of participation in a COP; it does create relationships among people. He also highlighted that, in most situations of sustained engagement, conflicts and tensions arise. In this section, Wenger also explained an extremely important notion about COP that often goes overlooked in its use:

> Because the term community is usually a very positive one, I cannot emphasize enough that these interrelations arise out of engagement in practice and not out of an idealized view of what a community should be like. In particular, connotations of peaceful coexistence, mutual support, or interpersonal allegiance are not assumed, though of course they may exist in specific cases. Peace, happiness, and harmony are therefore not necessarily properties of a community of practice. (pp. 76–77)

Wenger further asserted that through joint enterprise, a communal response to a situation is created even when a COP arises out of an outside mandate and, as such, external forces have limited direct power over the COP because it is always the community that negotiates its enterprise. Therefore, an enterprise is joint not because all members believe the same thing but because they all decide on the production of its practice. A shared repertoire includes routines, words, tools, stories, and symbols that the COP has produced and have become part of their practice with both participative and reificative properties. In sum, these three dimensions in

combination lead to meaning negotiation by creating social energy and local coherence. Wenger reiterates that COP are not intrinsically beneficial or harmful; they exist to share and develop the common goals of the group.

Community. Related to the component of learning, the framework explicates that practice must be understood as a learning process and the COP as an emergent community structure with shared histories of learning. Meaning negotiation is seen as a temporal process where some COP exist for centuries while others are short-lived. Tensions and conflicts that arise are negotiated by the community. When destabilizing events occur that have the potential to disrupt the COP, the community reaction is critical so that the learning and goal pursuit continue. The stability of this structure requires work so that when destabilizing events do occur, the COP reorganizes and develops specific responses that promote the continuity of the learning process.

Boundaries. Boundaries represent a type of connection that links a COP with the rest of the world because a COP cannot be considered in isolation. Becoming a member of a COP means entering not only its internal group but also its connections with the rest of the world. In some cases, the boundary of a COP is marked with obvious signs such as titles, dress, tattoos, or degrees; in other cases, the boundary is unmarked as in the case of a clique or the concept of the glass ceiling.

There are three types of boundary concepts: objects, encounters, and brokering. Boundary objects, such as documents, terms, and concepts, can organize the interconnections of a COP; a medical claim form is an example of a boundary object that connects the subscriber with the claims processing COP. Boundary encounters are meetings, conversations, and visits that help to negotiate meaning. Encounters may be a conversation between members of two different COP or visits by individuals or delegations to observe practice and member engagement. When delegations of a number of participants from each community are involved in an encounter, meaning negotiation takes place at the same time among members within each as well as across boundaries.

Boundary brokering describes connections made by people who introduce elements of one practice into another COP. Good boundary brokers stay at the boundaries of many practices so they can use their energies to make connections and facilitate alignment between perspectives. Brokering is complex in that brokers must avoid being pulled in to become full

members and being rejected as intruders in order to create enough legitimacy to be listened to. Wenger (1998) summarized this in relation to his study of a claims processing center: "I was allowed to enter the COP of claims processors with an openness that at times felt like full participation, but every so often elements of boundary would creep in to remind me that I was an outsider" (p. 120).

Wenger (1998) sums up his intentions with his COP work with this quote that reflects the purpose, power, and utility of this theoretical framework:

> In all these ways, the concept of COP is not unfamiliar. By exploring it more systematically in this book, I mean only to sharpen it, to make it more useful as a thinking tool. Toward this end, its familiarity will serve me well. Articulating a familiar phenomenon is a chance to push our intuitions: to deepen and expand them, to examine and rethink them. The perspective that results is not foreign, yet it can shed light on our world. In this sense, the concept of COP is neither new nor old. It has both the eye-opening character of novelty and the forgotten familiarity of obviousness–but perhaps this is the mark of our most useful insights. (p. 7)

Since Wenger articulated the COP theoretical framework in 1998, researchers from numerous fields have been interested in its application to their work. Researchers have used COP to study subjects as diverse as witches (Merriam, Courtenay, & Baumgartner, 2003), divers (Lagache, 1993), attorneys (Hara, 2001), and virtual communities (Owen, Pollard, Kilpatrick, & Rumley, 1998). Use of the COP theory in education research has made a positive impact on the field. It has provided a way of thinking about groups, made recommendations on how to influence a COP by brokering, and provided a thinking tool when considering why some groups function well and others may not. This COP research review is limited to studies in education, and it is organized into the following sections: (a) characteristic elements of COP, (b) tensions in COP, (c) boundary issues in COP, and (d) online COP.

Research on Key Communities of Practice Elements

Gallucci (2003) used the Communities of Practice (COP) framework as she investigated the professional learning demands that accompany standards based reform initiatives. Gallucci described her work as a policy-oriented case study, and she studied six elementary teachers in the state of Washington as they responded to a standards based reform initiative with its policies and curricular demands. She argued that the