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"You Can't Just Jump Into the Icy Pool of Metacognition": The Value of Networking and Community Building in California Community Colleges' Reading Apprenticeship Project

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“You Can't Just Jump Into the Icy Pool of Metacognition": The Value of Networking and Community Building in California Community Colleges' Reading Apprenticeship Project

A dissertation submitted in partial satisfaction of the requirements

for the degree Doctor of Education

by

Deborah Lea Harrington

2014

ABSTRACT OF THE DISSERTATION

"You Can't Just Jump Into the Icy Pool of Metacognition":

The Value of Networking and Community Building in California Community Colleges' Reading Apprenticeship Project

By

Deborah Lea Harrington

Doctor of Education

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Professor Christina Christie, Chair

Increasing the ability of underprepared and underserved students to acquire the skills necessary for college success is a critical component of the mission of California community colleges, yet faculty, staff, and administrators have historically received little training in how to effectively do so. For one statewide professional development effort underway, the Reading Apprenticeship Project (RAP), a study was conducted to examine the impact of a teaching innovation, Reading Apprenticeship, on classroom practice and on faculty understanding of student engagement and progress as a result of incorporating the innovation. RAP, a community of practice initiative funded by the state system through its California Community Colleges' Success Network (3CSN), seeks to address a significant gap

in faculty pedagogical training: how to support adult students' academic literacy acquisition in discipline-specific contexts.

Because 3CSN's RAP has structured its professional development delivery around social learning modalities, a conceptual framework designed to analyze the value of interventions enacted through communities and networks was employed to examine the largely self-reported perceptions provided by the study's key informants, seven experienced Reading Apprenticeship practitioners. Qualitative data collected through individual and group interviews and practitioner observations were systematically described and analyzed using the five categories or "cycles" of the conceptual framework. Additionally, the data, where applicable, were examined within the context of the Reading Apprenticeship Framework itself.

Evidence pointing to perceived value was discovered across all cycles, patterns connecting the cycles of community and network learning to the RA dimensions were described, and seven findings corresponding to the research questions were outlined. Through its findings, the study ultimately sought to clarify the core features necessary for the implementation of professional learning that makes a transformative difference in classrooms and across institutions and can be reproduced at scale.

The dissertation of Deborah Lea Harrington is approved.

Marvin Alkin

Louis Gomez

James Stigler

Christina Christie, Committee Chair

University of California, Los Angeles

2014

DEDICATION PAGE

All that I am, or hope to be, I owe to my beloved Tracy. Her intelligence, compassion, humor, and dedication inspire me to be a better and truer person. It is with profound gratitude that I dedicate this work to her. I love her to the moon and back.

First of all:
I am tired
I am true of heart!
And also
You are tired
You are true of heart!
--Dave Eggers

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This study attempts to make the case that professional learning IS learning—deep, complex, messy, and joyful learning. I've always wanted to write about this learning, and I would not have been able to without the guidance and encouragement of Tina Christie. I thank her and Michael Harnar for being an evaluation tag-team par excellence. 3CSN's story can never be told without you, Tina and Michael—I am most spectacularly grateful that you both are part of my personal learning network.

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In twenty-nine years of being a California community college professional, I have met amazing individuals who have inspired me to work hard. Two of these, Mike Rose and Gary Colombo, not only wrote letters of recommendation for me to get into ELP, they also modeled for me the passionate empathy and commitment to rigorous and challenging teaching necessary to cultivate transformative learning institutions. To Mike and Gary and

to other talented educators like the members of my dissertation committee, Jim Stigler, Louis Gomez, and Marvin Alkin, I also say thanks for defending and enabling public education excellence in California. This dissertation not only takes inspiration from you, but it strives to describe the kind of values you embody as principled advocates of California's systems of higher education.

I am a first generation college goer who benefited greatly from California's Master Plan. I am grateful to the community of California's community colleges for nurturing my learning and for providing others like me with the chance to lead a wonderful life. And of course the two originators of this life of mine, my parents, deserve tremendous credit for making sure that there were always books, thought-provoking conversations, and respect for other cultures in the houses we lived in both in this country and overseas. I hope I have made them and my sisters, nieces, and nephews proud.

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CHAPTER ONE

"It is not that teaching is so horrible, or that there are not many excellent teachers. The problem is that teaching as a profession -- and education in general-- has no systematic way of improving itself."
—Lee Shulman, Past President, Carnegie Foundation for the Advancement of Teaching

Introduction

The 112 California community colleges make up one of the largest education systems in the world. Together they serve more than 2.6 million students and provide the majority of college-going students in the state with their only access to higher education (CCCCO, 2011). However, while California community colleges may be lauded for their accessibility, attention has focused recently on dismal rates of completion and success: nearly fifty percent of career-technical students and more than a third of transfer-seeking students leave within a year (Public Policy Institute of California, 2006). There are undoubtedly many factors that contribute to the low rate of completion in California's community colleges, but the high percentage of students, a startling 70-80%, assessed as underprepared for college level coursework is clearly a significant concern. These so-called remedial or developmental students are often faced with needing to complete English and math course sequences lasting four or more semesters; further, these courses, while costing the same as other classes, do not reward students with any credits towards degree or transfer.

How well have students who have placed at these remedial levels performed? The cohort of developmental students entering California's two-year system in 2001/02 had only completed transfer-level math at a rate of fourteen percent and transfer-level English at thirty-nine percent by 2008/9 (CCCCO, 2010). And California is not alone: in a national

study involving a quarter of a million students from nearly sixty colleges in seven states, Bailey et al. (2010) discovered that, at most, forty-six percent of students finished the developmental sequence into which they were assigned (p. 256). More troubling still, within a span of eight years, less than one quarter of these students go on to complete a college degree (Bailey et al., 2010).

Increasing the ability of underprepared and underserved students to acquire the skills necessary for college success is a critical component of the mission of community colleges, yet faculty, staff, and administrators have historically received little training in how to effectively do so. As the literature testifies, because there is evidence that remediation in its current forms does not work (Bailey, 2009; Bettinger & Long, 2009; Bryk, Grunow, & Gomez, 2010; Calcagno & Long, 2008; CCC, 2011; Fike & Fike, 2008; Goldrick-Rab, 2010), a key locus for change resides in the ability of community college professional staff to rethink, redesign, retrain, and rebuild in terms of policies and procedures as well as teaching and learning practice. Similar to other state systems, California's community college system, through its Student Success Taskforce and Basic Skills Initiative, has theorized that highly focused professional development to improve basic skills instruction and student learning outcomes in remedial sequences is key to increasing student attainment of certificates, degrees, and transfers [California Community Colleges Chancellor's Office (CCCCO) Student Success Taskforce (SSTF), 2011; CCCCO Basic Skills Initiative (BSI), 2008; Research and Planning Group, 2005; Complete College America, 2010; Completion by Design, 2010; Achieving the Dream, 2009).

Whether related to instructional techniques, interpersonal skills, or the overall classroom environment, demonstrating that professional development is a key factor in

significantly improving student achievement takes focused activity over time (Roueche & Roueche, 1993; CCCCO SSTF, 2011). Along the way, efforts must be made to collect data that describe the specific changes made in classrooms; student results can subsequently be mapped to the associated classroom innovations. For one of the system-supported professional development efforts underway, California Community Colleges' Success Network (3CSN), a study was conducted to examine the impact of a teaching innovation on classroom practice and on faculty understanding of student engagement and progress as a result of incorporating the innovation. By conducting research into a faculty community's attempts to improve student learning by incorporating a repertoire of cognitive routines into their classroom practice, and then by examining the interconnections amongst the findings, the study sought, as Bryk, Gomez, & Grunow (2010) suggest, to reveal parts of the "problem ecology" which could be "organized in ways that enhance the efficacy of individual efforts, align those efforts and increase the likelihood that a collection of such actions might accumulate towards efficacious solutions" (p. 5). Through its findings, the study ultimately sought to clarify the core features necessary for the implementation of professional development that makes a valued difference in the classroom and across the institution.

Background

Addressing the needs of underserved students and increasing the capacity of community colleges to help these students succeed in completing certificates, degrees and/or transfer requirements has been the focus of the California Community Colleges Chancellor's Office (CCCCO) Basic Skills Initiative (BSI) through its Professional Development Grant, a.k.a., 3CSN, the California Community Colleges Success Network. This

grant was awarded to 3CSN largely in recognition of the fact that few of the nearly 100,000 faculty, administrators, and staff in the system have received any type of preparation or training to address the needs of basic skills students at the classroom, program, or institutional levels (Kozeracki, 2005). 3CSN's successful bid to represent the CCCCO's BSI also is due to a growing awareness of the benefits of collaboration in educational settings, and this has contributed to the growth of professional networks that connect individuals and institutions (Mullen & Lick, 1999)— the very essence of 3CSN's approach to faculty development.

3CSN strives to ensure all regions of the state are part of a robust, connected set of networks within which principles for powerful classroom practice are widely implemented and improved, where learning is documented, shared, and used to inform new professional learning efforts and to build the powerful learning environments students need to succeed. The major approach 3CSN takes to improving teaching and learning is through its networked communities of practice which center on curricular and institutional redesign and involve empirically studied interventions including *Reading Apprenticeship* (Schoenbach, Greenleaf, & Murphy, 2012; Grubb, et al., 2011; Lesmeister, 2010), *English and Math Acceleration* (Bailey, Jeong, & Cho, 2010; Bragg, 2009; Hern, 2012; Hern, 2010; Jenkins, et al., 2010; Marwick, 2004), and *Habits of Mind* (Costa & Kallick, 2008; Aronson & Good, 2002; Dembo, 2004; Dweck, 2006; Karp & Bork, 2012; Nussbaum & Dweck, 2008; Mangels, et al., 2006). These are highly coordinated and recursive efforts incorporating academic research and inquiry with engaging and collaborative problem-solving practices to achieve large-scale increases in student pathway completion.

The 3CSN method for creating networked communities of practice generally

involves three elements or phases:

1. **A leadership retreat**, where participants (a) learn the tools they need to carry out a community of practice (b) create a one year action plan, and (c) create an evaluation plan for the community of practice results
2. **Formation of the community of practice** itself, where participants (a) conduct inquiry, (b) share ideas, (c) pilot change, and (d) document and evaluate
3. **Sustain ongoing recursive practice**, where participants (a) create a cycle of inquiry and change, (b) become trainers for the next generation, and (c) institutionalize the work

The building of networked communities of practice has been championed by 3CSN since its start in 2009, mirroring a trend towards focused, ongoing, and recursive faculty training that has been underway in other large-scale community college initiatives such as Statway. A study of Statway's approach to professional development, *Getting Ideas into Action: Building Networked Improvement Communities in Education* (Bryk, Gomez, & Grunow, 2010), provided a starting point for contemplating how networked innovations like those implemented by 3CSN could be analyzed to help the field understand ways to bring to scale best practices through the integration of multiple solutions/approaches, "pre-existing organizational conditions," and adequate professional development (Bryk, Gomez, & Grunow, 2010, p. 15). Bryk, Gomez, & Grunow describe three cases where organizations have aligned their research and development efforts to improve practice and outcomes on a large-scale. They also describe some structuring elements similar to 3CSN's

including membership criteria, common and measurable goals, and community building approaches that support the need for seeding and facilitating strong peer-to-peer networks focused on solving common problems such as those 3CSN facilitates.

Research Questions

An overarching question came to underlie the study: What role has a coordinated professional development initiative, 3CSN's Reading Apprenticeship Project, played in helping practitioners solve issues surrounding student completion? On a more specific level, the following inquiry questions were formulated and then used to guide the research:

- In what ways, if at all, are participants implementing the Reading Apprenticeship framework?
- To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' beliefs about how learning occurs in their disciplines?
- To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' instructional practice?
- In what ways, if at all, do participants perceive that their implementation of the RA framework helps to increase student engagement in their classrooms? Helps to increase student achievement?

Research Site/Populations

The study focused on one of 3CSN's communities of practice, the Reading Apprenticeship Project (RAP). RAP members include more than 500 faculty from over half of California's 112 community colleges. RAP seeks to address a significant gap in faculty pedagogical training: how to support adult students' academic literacy acquisition in discipline-specific contexts. In order to address the research questions, the study centered

on a sub-set of seven veteran RAP faculty conducting a faculty inquiry[1] project on behalf of 3CSN. The study participants had been working together for nearly a year to study, test, and assist in the revision of formative cognitive assessments developed by the Educational Testing Service (ETS) to track learning gains. As described by 3CSN (2012), this inquiry group's purpose was to "develop instructors' understanding of formative assessment and differential instruction, topics which have not yet been rigorously explored in professional development settings, but which of course are increasingly crucial to successful instruction in California Community Colleges." These seven were chosen by 3CSN's Executive Director and RAP Coordinator to participate in the sub-group conducting the ETS faculty inquiry because they were judged to be RAP exemplars. They each had extensive Reading Apprenticeship training, participated regularly in RAP community of practice activities, and had facilitated RA at 3CSN-sponsored events. Additionally, they represented a diversity of disciplines and departments, and they had previously demonstrated exemplary skills in leadership and pedagogy during multiple 3CSN activities, including non-RA related trainings.

Research Design

The research design reflected a well-detailed narrative of the professional learning experience. The narrative recorded the extent to which faculty believe the Reading Apprenticeship (RA) framework had been incorporated into their practice and in what

[1] 3CSN follows the definition for faculty inquiry as laid out by the Carnegie Foundation for the Advancement of Teaching (2008): ***Faculty inquiry*** *is a form of professional development by which teachers identify and investigate questions about their students' learning. The inquiry process is ongoing, informed by evidence of student learning, and undertaken in a collaborative setting. Findings from the process come back to the classroom in the form of new curricula, new assessments, and new pedagogies, which in turn become subjects for further inquiry.*

ways. It chronicled faculty beliefs about RA's influence on how learning happens in their disciplines and the extent to which they thought they transformed their teaching in ways that impacted the cognitive growth of students. This was accomplished largely through analyzing the viewpoints expressed by the key informants during individual and group interviews, as well as through classroom observations and document/artifact analysis. Additionally, a questionnaire was administered to 126 California community college faculty, inclusive of the seven sub-group RAP practitioners, who had been trained in RA in the last few years. Emergent themes regarding both challenges and opportunities faced by faculty were analyzed in the findings chapter along with recommendations for action and/or further study in chapter six.

Significance of the Research for Solving the Problem/Public Engagement

The findings and recommendations of the study can be disseminated through the local, regional and statewide activities and events coordinated through 3CSN. The results of the research can be used to study how to build capacity at various levels in the system, starting with the statewide leadership institute 3CSN holds every summer.

The study can also provide descriptive and evaluative information important to 3CSN. The results can help 3CSN understand ways in which their RA initiative has been used to generate and disseminate new knowledge using the mobility of the networks. The study can provide evidence about which activities are effective in engaging colleges within and across regions, particularly in regards to activities that have demonstrable impact on professional practice and student learning and success. Perhaps most importantly, the results of the study can be used by 3CSN to develop maps to effectively broker resources

and assist in documenting and sharing emergent knowledge generated within the networks.

On a broader level, the study's findings can contribute towards a more coherent understanding of the role networked professional learning plays in supporting innovation leading to instructional transformation on a more widespread scale. Through teasing out the extent to which the professional community helped foster the ongoing acquisition of skills and knowledge, the space to try out new ideas and acquire new tools, and the focus to provide students with a more cohesive and contextualized instructional experience, the study can provide information vital to making budgetary and planning decisions that have a better chance at seeding the conditions necessary for achieving improvement at scale.

CHAPTER TWO

Literature Overview

In order to build a conceptual framework for the study, in my literature review I examined prior empirical research detailing the background issues and problems underlying the lack of completion in basic skills sequences at the community college level. I next examined research related to the teaching innovation, Reading Apprenticeship (RA), the faculty are incorporating into their practice in order to address literacy/cognitive skills and completion. I took care to situate RA within the context of being a reading comprehension intervention advanced through professional training. Because the particular adaptation of RA through 3CSN is grounded in the framework of inquiry/communities of practice, I looked at bodies of literature related to this approach. That involved linking the professional development to inquiry-based frameworks of social and organizational learning, whose roots, like RA, grew from theories about situated learning, metacognitive awareness, and learning as practice. At its core then the review detailed a history of Communities of Practice, centered mostly on E. Wenger's evolving work (with Lave and others) but also including Brown and Duguid. This was followed by an examination of the numerous studies that show how professional development based on communities or networks of practice/inquiry demonstrate the most promise in scaling high impact practices. D.M. Berwick's work, *The Science of Improvement*, as well as Wenger, Trayner, and de Laat's conceptual framework on value creation in communities/networks also provided starting points for understanding how to evaluate a network's ability to seed innovation and transformation. This was in addition to rounding out the analysis of

networked professional development approaches through the previously mentioned work of Bryk, Gomez, & Grunow.

The Failure of Developmental Education Sequences to Prepare Students for Completion of Their Educational Goals

The presumed linchpin for student achievement, acquisition of essential literacy and numeracy skills necessary for college-level work across the disciplines, fails more than half of all community college students (Bailey, Jeong, & Cho, 2010; Hern, 2010). While practitioners and researchers expend significant human and resource capital addressing developmental education, most studies demonstrate how the prevalent assessment and placement practices, as well as the course sequences themselves, little predict student success (Calcagno & Long, 2008; Bettinger & Long, 2009; Bailey et al., 2010; Goldrick-Rab, 2010). The yearly cost of offering developmental sequences in the United States has most recently been estimated at roughly two billion dollars (Bailey et al., 2010). Remediation in Florida's community colleges during 2004-05 cost $118.3 million (Levin & Calcagno, 2008). Students significantly shoulder the costs as well, taxing their resources, time, and emotions without earning them units toward completion of a degree or units towards transfer (Levin & Calcagno, 2008).

Community college educators nonetheless agree that considerable resources should be invested in supporting student completion of college-level literacy and computational skills (Oudenhoven, 2002; Fike & Fike, 2008; Bettinger & Long, 2009; Goldrick-Rab, 2010). At the same time, community colleges do not agree on who needs remediation and what standards and curriculum best move students to college-readiness, as there is sparse consensus over what even constitutes collegiate level work (Oudenhoven, 2002). Thus,

students may test and be placed into a remedial level at one institution and yet be assessed into college-level at another campus, even within the same district (Oudenhoven, 2002; Bailey, 2009; Bailey et al., 2010). Further complicating matters, the record documenting empirical links between remedial course work and successfully completing certificates and degrees is spotty at best.

Thus, a growing influx of influential studies questions the design and efficacy of the multi-leveled developmental sequences themselves (Calcagno & Long, 2008; Sheldon & Durdella, 2009; Bailey, et al., 2010; Matorell & McFarlin, 2010; Hern, 2010). Goldrick-Rab (2010) summarizes the inconclusiveness of most recent rigorous studies of developmental sequences by noting that for every one showing "short-term positive effects on student persistence," there are studies finding "no impacts on degree completion" (p. 448). Amongst the few longitudinal studies conducted in the last decade, agreement exists that the level at which students place impacts completion of developmental sequences (Kolajo, 2004; Marwick, 2004). A large-scaled study in Texas examining the effects of developmental education in both colleges and universities concludes remediation provides virtually no improvement academically or in the labor market for students (Martorell and McFarlin, 2010). An even more comprehensive study conducted in Florida involving almost 100,000 students focuses solely on community college students (Calcagno & Long, 2008). Using a regression discontinuity approach, Calcagno and Long's research results suggest that "remediation might promote early persistence in college, but it does not necessarily help students make long term progress towards a degree" (p. 1).

The most extensively detailed examination of the efficacy of developmental sequences is also the most quoted and referenced in recent research. Bailey et al.'s *Referral,*

Enrollment, and Completion in Developmental Education Sequences in Community Colleges (available online in 2009 but formally published in early 2010) tracks the completion rates in developmental (remedial) education sequences for more than 250,000 students in fifty-seven community colleges in seven states. The study tracks data provided through Achieving the Dream, the largest initiative focused on closing equity gaps ever attempted in community colleges. Achieving the Dream colleges enroll more urbanized, poor, and minority student populations (p. 258) than average; for this reason, Bailey, et al. checked their results against results from the National Education Longitudinal Study of 1988 to ensure consistency (pp. 256 & 258).

The students studied were tracked as a cohort over three years, beginning in 2004. Key findings include the fact that only between thirty-three and forty-six percent of the students ever complete the remedial sequence. Additionally, "between 60 and 70 percent of students who fail to complete the sequence to which they were referred do so even while having passed all of the developmental courses in which they enrolled" (p. 256). The study illustrates many of the points at which students stop out or exit the sequence, determining that the lower down the students are initially placed the less likely it will be that they will ever complete the sequence. Moreover, students who were referred to but skipped the remedial coursework by registering directly in college-level "gatekeeper" courses (defined in the study on page 258 as the "first college-level courses corresponding to the developmental subject fields"), succeeded much more significantly. Seventy-two percent of the students who ignored their placement succeeded in the college-level course compared to twenty-seven percent of those who followed their referral by completing all the required developmental coursework (p. 261).

Bailey et al. (2010) conclude that their research connects to the work of Henry Levin and his elementary and middle Accelerated Schools Project (ASP). They quote Levin in summarizing an approach they feel will work equally well at the college level: "a better strategy for success is not to slow down their development and learning through repetition of the lowest level skills, but to incorporate those skills into more meaningful educational experiences that will accelerate their growth and development to bring them into the academic mainstream" (pp. 268-269).

Many community college initiatives designed to address the failure of students to complete remedial sequences and to complete their educational goals also posit that better strategies to incorporate just in time literacy and computational skills would result in increased college and career readiness and would better suit the needs of adult learners (CCCCO Student Success Taskforce, 2011; Complete College America, 2011; Pennington & Milron, 2010). These initiatives all have strong professional development efforts attached to them, as there is an underlying assumption that any solutions to the problems surrounding student completion will be predicated on faculty and staff significantly rethinking and redesigning how they approach teaching and learning. Reading Apprenticeship (RA) is one such approach, rooted in reading comprehension research and focused on teaching content literacy that is integrated and problematized within the context of a discipline.

Many of the theoretical underpinnings of RA, including cognitive apprenticeship, also play a significant role in the development of the central type of professional development 3CSN advocates, one based on implementing communities of practice (CoPs). RA is an approach focused on just in time and contextualized learning, one that has

application across the disciplines; this too aligns with 3CSN's efforts to increase faculty capacity for reconceptualizing and redesigning the teaching of basic skills in light of the widespread failure of so many community college students to complete their educational goals. Thus research supports the pairing of RA with the 3CSN initiative, as will be discussed later in this chapter.

The Reading Apprenticeship Framework

Reading Apprenticeship (RA) has several theoretical underpinnings, beginning with the premise advanced by Vygotsky (1978) that advanced mental processes resulting in higher cognition occur by way of complex activities mediated at both social and cultural levels. According to the RA Framework, reading itself is just this kind of complex and mediated activity, making it a process shaped by the contexts in which it is conducted (Scribner & Cole, 1981; Street, 1995). A reader in an apprenticed classroom has the assistance of a more experienced mediator/teacher, i.e. Vygotsky's postulated "more competent other," to provide social support for learning, leading students in metacognitive activities to advance their reading comprehension (Rogoff, 1990). These activities include reading lots of challenging texts, sharing reading processes, including problems and solutions, and lots of writing and talking about texts. RA classroom routines are designed for internalization and strategic use so that students become increasingly able to do them on their own (Schoenbach, Greenleaf, & Murphy, 2012).

RA's teacher-initiated reading routines or strategies focus on reading comprehension: most specifically on reading comprehension grounded in metacognitive conversation, leading to increased awareness and understanding by students of how meaning is constructed as we read (Keene & Zimmerman, 1997; Schoenbach, Greenleaf, &

Murphy, 2012). Metacognitive conversation also forms the basis of several other reading comprehension strategies including Concept Oriented Reading Instruction (CORI), Collaborative Strategic Reading (CSR), and Question Answer Relationship (QAR), all of which are designed to build the kind of critical thinking and self-monitoring skills students will need to effectively tackle texts on their own (Baker & Beall, 2009; Fairbanks, Cooper, Masterson, & Webb, 2009). Herein, metacognition not only involves awareness of one's own cognition, but also involves the regulation of that cognition (Simons, 1994). This means that metacognition actively incorporates "reflection, self-knowledge of strengths and weaknesses, learning strategies, and monitoring learning" (Billing, 2007, p. 486). A metacognitive foundation works to help the student access multiple strategies for grappling with a text, including recognizing when they don't understand and need to take action to understand (Nash-Ditzel, 2010). The ongoing metacognitive discussions about how to achieve reading comprehension are viewed as especially important for the transfer of key critical thinking skills to new contexts (Billing, 2007).

In RA, the metacognitive focus derives from a belief that reading practice does not occur in isolation and is best achieved through active and reflective engagement (both internal and external) so as to ensure students experience reading as the complex process it is (Greenleaf et al., 2011; Schoenbach, Greenleaf, & Murphy, 2012). RA stresses reading as a process that involves navigating a range of contexts, including ones specific to a discipline, and to cultural and social dimensions—all of which can potentially increase or impede comprehension (McVee, et al., 2005; Franzak, 2006; Greenleaf et al., 2011). In an RA classroom, instructors and students are thus expected to work collaboratively in order to make meaning and solve problems that arise as they engage with high-level academic

texts. As Greenleaf et al., 2011 summarizes, the teacher works "to make explicit the tacit reasoning processes, strategies, and discourse rules that shape successful readers' and writers' work in particular disciplines (e.g. Delpit, 1995; Fielding & Pearson, 1994; Freedman, Flower, Hull, & Hayes, 1995; Gee, 1999; Lemke, 2006; Moje, 2008; Pearson et al., 2010; Shanahan & Shanahan, 2008). "

Because RA sees literacy acquisition as a partnership of expertise between the teacher and students, it operates as a strengths-based model, focusing on increasing learners' abilities to engage in inquiry and develop resiliency as learners (Greenleaf et al., 2011; Schoenbach, Greenleaf, & Murphy, 2012). It eschews the idea of reading as something that is merely basic and to be taught to the young primarily as a decoding process (Schoenbach, Greenleaf, & Murphy, 2012). Reading instead is seen as an iterative, complex, and problem-solving process, especially if one is to achieve academic fluency. In the RA framework, the interrelated concepts of situated learning and reciprocal teaching seek to form a foundation through which not just developmental students but students in transfer level academic courses and career and technical education develop habits of mind and strategies for understanding content area texts and discourse (Fairbanks, Cooper, Masterson, & Webb, 2009; Greenleaf et al., 2011).

Many of the specific routines made visible to students by the teacher and practiced together include the kinds of activities shown in a seminal study of reciprocal teaching undertaken by Palincsar & Brown (1984). These activities include examining purposes in reading, activating relevant schemata, regulating attention, assessing content, and making and testing inferences (Fairbanks, Cooper, Masterson, & Webb, 2009). Palincsar and Brown's Reciprocal Teaching (1984) argued for teachers to model and students to

extensively use the critical routines of summarizing, questioning, clarifying, and predicting in order to learn how to effectively comprehend and take ownership of their reading (Moje, 2007). In Reading Apprenticeship, students are literally given a "metacognitive bookmark" to keep track of these types of critical routines as the teacher demonstrates them, and so they can remember them as they practice these routines with their classmates and on their own (Schoenbach, Greenleaf, & Murphy, 2012). Reciprocal teaching, grounded in metacognitive conversation, has been demonstrated as an effective reading comprehension intervention in other landmark studies aside from Palincscar and Brown (1984). These studies, including Rosenshine and Meister (1994) and Haller, Child, and Walberg (1988), all demonstrate large median effect sizes using experimenter-developed comprehension assessments (Baker & Beall, 2009; National Reading Panel, 2000).

Just as reciprocal teaching involves a type of apprenticing of students by teachers, so too is situated learning a type of cognitive apprenticeship in which teachers provide scaffolding tools, i.e., learning processes, and link new knowledge to existing knowledge schema (Prestine & LeGrand, 1991; Ethel & McMeniman, 2000). In RA, there are many tools such as personal reading history, think alouds, sentence frames, think-pair-share, talking to the text, metacognitive log keeping, jigsaw, visual note-making, and QAR (Question Answer Relationship) that provide both scaffolding of important literacy skills and also surface schema or mismatching of schema as students engage texts (Schoenbach, Greenleaf, & Murphy, 2012). These tools are integrated (situated) authentically (Brown, Collins, & Duguid, 1989) within discipline-specific learning experiences so that "students have the opportunity to observe, engage in, and invent or discover expert strategies in the context of their eventual use" (Ethel & McMeniman, 2000, p. 90).

In promoting the development and use of flexible schemata, RA seeks to build a bridge between the social, cultural, and language experiences students bring with them and the literacy and critical thinking practices valued in academia (Greenleaf, Schoenbach, Cziko, & Mueller, 2001; Franzak, 2006). RA asserts that students bring a lifetime of knowledge with them to reading and when they "encounter new information or experiences, their minds automatically try to figure out how the new information fits with schema they already have" (Schoenbach, Greenleaf, & Murphy, 2012, p. 234). The use of schema to help students navigate the cultural and social distances between their knowledge and the knowledge being set forth in texts has been challenged recently by some reading researchers (Krasny, Sadoski, & Paivio, 2007; Gredler, 2007). However others are beginning to argue that a schema approach that includes active attention to social and cultural material as advocated by teachers apprenticing students through the RA framework shows great promise as tool for student equity (McVee, Dunsmore, & Gavelek, 2005; Franzak, 2006; Moje, 2007; Houchen, 2013). These researchers believe the RA framework of valuing the schema of students, including those who have often been marginalized, will help promote the movement away from narrow or standardized reading lists to texts that have greater diversity of views and thus greater relevancy to students (Franzak, 2006; Houchen, 2013). These studies note that the collaborative approach embraced by RA coupled with RA's emphasis on the use of rigorous texts and high-level cognitive conversation honors diverse thinking which they believe promotes genuine equity (Franzak, 2006; Moje, 2007; Houchen, 2013). Moje (2007) concludes that RA's use of thinking metacognitively about schema helps students acquire the literacy codes privileged

by academia while also helping students "develop practices for cultural navigation as well" (p. 31).

In much the same way that RA advocates flexible and metacognitive use of schema, the RA framework does not assume that students who read art or literature texts fluently will be equally fluent with science-based texts. Consequently, literacy is intrinsically situated within the context of the discipline. This disciplinary-situated approach to literacy has ties to the pedagogical content knowledge (PCK) first proposed by Shulman (1986) and refined by studies that demonstrate the ways in which common approaches and practices occur surrounding the reading, writing, and thinking within disciplines (Moje, 2007). The importance of PCK to increase literacy proficiency turns up time and again in the research and is typically accompanied by the acknowledgement that well-supported professional development must accompany efforts to integrate high impact literacy instruction across the curriculum (Wilson & Wineburg, 1988; Greenleaf et al., 2011; Bausmith & Barry, 2011; Van Driel & Berry, 2012). Van Driel and Berry (2012) also assert that this professional development, like the situated literacy instruction, should allow participants to reflect deeply and collectively about how students learn discipline-specific cognitive skills yet remain respectful of the complexity of PCK development, noting that all learning is specific to the individual and her context and situation. Nationally, there are several professional development programs, aside from RA, that have at their root a disciplinary-situated approach to literacy, including the University of Pittsburgh's Institute for Learning, the National Writing Project, and Project CRISS (Heller & Greenleaf, 2007).

In assessing the impact of cognitive apprenticeship or situated learning focused literacy interventions such as RA, most studies rely on qualitative or quasi-experimental

methods (Englert, Berry, & Dunsmore, 2001; Martino, Norris, & Hoffman, 2001; Alvermann, 2004; Billing, 2007; Moje, 2007; Au, Raphael, & Mooney, 2008; Greenleaf, et al., 2011; Grubb et al., 2011; Houchen, 2013). They also typically focus on K-12. But even in these studies, RA is usually featured amongst other interventions; only one peer-reviewed K-12 study, focused on high school biology students, exclusively focuses on the impact of the RA model (Greenleaf, et al., 2011).

In the studies where RA is grouped amongst several other cognitive skill development interventions, there are various conclusions drawn which point to potential strengths in the model, such as those mentioned earlier that remark on the potential of RA to help faculty teach subject matter with greater cultural competency and in socially just ways (McVee, Dunsmore, & Gavelek, 2005; Franzak, 2006; Moje, 2007; Houchen, 2013). Alverman (2004) notes that RA, along with Project CRISS, demonstrate particular promise in contextualizing literacy across the disciplines so that students get the just in time remediation they need. Alverman (2004) notes in particular that RA and Project CRISS have the accompanying strength of strong professional development which can have a greater impact on lasting change. This is in line with longitudinal studies in literacy improvement, such as Au, Raphael, & Mooney's (2008) which concludes that scaled literacy interventions with strong professional development across the entire faculty demonstrate significant increases in state reading tests, increases that occurred equally in urban areas in Hawaii with a poverty level of 50% and in Chicago with a poverty level of 85%. Interestingly, both Franzak (2006) and Alverman (2004) note concerns that while cognitive and situational learning centered approaches show promise, there are weaknesses in terms of these initiatives not paying enough attention to the visual and

digital literacies that younger readers not only value but are literacies essential to the 21st Century.

Another set of studies, prepared by MDRC and published through the Department of Education's Institute of Education Sciences (IES) National Center for Education Evaluation and Regional Assistance, looks at RA and another program called Xtreme Reading (Kemple et al., 2008; Corrin et al., 2008; Somers et al., 2010). The three works in the set together comprise the evaluation of the Enhanced Reading Opportunities (ERO) study, a two-year federally-funded demonstration of RA and Xtreme Reading conducted in 34 high schools and 10 school districts. The studies look at two sets of ninth graders participating in a year-long class using either RA or Xtreme Reading. Results for each of the cohorts showed that the ERO programs improved reading comprehension in the ninth graders over the course of the year; in looking at both the ninth graders in year one of the programs and the ninth graders in year two of the program, a statistically significant effect size of 0.09 occurred (Kemple et al., 2008; Corrin et al., 2008). The final report notes that the implementation of both the interventions, RA at 11 of the schools and Xtreme Reading at 13 of the schools, were well or moderately aligned overall, with 10 of the 34 schools demonstrating poor alignment (Somers et al., 2010). The students exhibited increased GPAs in core subject areas, greater standardized state tests scores, and more credit accumulation during the ninth grade when they were participating in the ERO programs; however, in the year following their ERO participation, no statistically significant impacts on their academic performance occurred (Somers et al., 2010). It should also be noted that for both sets of ninth graders in the two years, while they improved from the twenty-third to the twenty-fifth percentile on the national reading comprehension scale, 77 percent still read at two

levels below grade level at the end of their year-long participation in ERO (Kemple et al., 2008; Corrin et al., 2008).

In Greenleaf et al. (2011), the intervention utilized is professional development for high school biology teachers in order to implement Reading Apprenticeship in 9th or 10th grade classrooms. Experienced teachers were randomly selected from public high schools serving underrepresented students across California. 105 biology teachers from 83 schools participated, with 56 teachers representing 43 schools assigned to the treatment group, receiving 10 days total of RA training (Greenleaf et al., 2011, p. 673). The study measures included pre and post faculty and study surveys as well as teacher interviews, samples of lesson plans with accompanying student work, and post intervention assessments of student learning in biology and reading comprehension (Greenleaf et al., 2011, p. 676). The teacher surveys, interviews, and assignment samples indicate that the treatment group of faculty exhibited more knowledge and ability about how to integrate the teaching of the reading of science with the content of science. In the spring of the year the students were enrolled in biology with the treatment faculty, English language arts, reading comprehension, and biology CST tests indicated that the students "were about 1 year ahead of their counterparts in control classes" (p. 701). Greenleaf et al. do acknowledge a primary limitation in their study due to the fact that the professional development was designed such that the treatment group received their training over a year before the study was enacted. This gave them a year's worth of practice in other classes prior to the study, but it also meant that the entire process took over a year, resulting in a greater than 50% loss the ability to collect data from both control and treatment faculty. In the end, this means that there was a fairly small n size from which to draw their conclusions.

At the college level, researchers suggest that integrated reading approaches focused on comprehension demonstrate better results than those focused on basic reading skills (Martino, Norris, & Hoffman, 2001; Perin, 2011). RA itself is again mostly referred to in conjunction with several similar interventions, with few published peer-reviewed studies of its efficacy. In a November 2012 study evaluating the impact of the Achieving the Dream Initiative[2] in Michigan, one community college reports that there is widespread use of RA across its campuses, impacting over 900 students in 2011 alone (Hillard, 2011, p. 12). One controlled experiment conducted by a single Sociology professor at North Central Michigan College showed student achievement in RA sections was better and retention stronger (Hillard, 2011). While a more formal, robust study measuring the impact of RA has not been performed yet, the college believes that the increase from 12.7 percent to nearly 50 percent of students moving from remedial to credit-bearing English courses in the span of four years is due to Reading Apprenticeship (Hillard, 2011, p. 12). Prominent basic skills researcher Dolores Perin parenthetically includes Greenleaf et al.'s 2011 study of RA amongst her list of integrated instruction interventions taking place in academic programs at the secondary level in her review of evidence of student learning through contextualization (Perin, 2011). However, she includes the RA study as one amongst many of the studies containing "methodological weaknesses that limited conclusions that could be drawn about the effectiveness of contextualization" (Perin, 2011, p. 274). Perin (2011) goes on to say that "no studies of integrated instruction at the college level were identified" (p. 274). Perhaps because it was published the same year as hers, Perin does not include

[2] Achieving the Dream is a national nonprofit dedicated to helping community colleges close the achievement gap and produce more student completion of degrees and certificates. It has nearly 200 colleges, 100 coaches and advisors, and 15 state policy teams working throughout 32 states and the District of Columbia.

Grubb et al. (2011), a study which does look at interventions that accelerate basic skills acquisition at the community college level.

In the section of Grubb et al. (2011) focused on Reading Apprenticeship, the findings are based on the extent to which RA tools and strategies have been incorporated into instruction, with the measurement of the adaptation largely self-reported or completed through classroom observation. For the study of RA, a team of four researchers interviewed administrators and instructors as well as observed classes integrating RA approaches and strategies at five community colleges (Grubb et al., 2011, p. 40). For the observations, a scale was developed to measure the extent to which the observers could see RA tools and strategies taking place. In classes where the strategies were incorporated more consistently, the researchers reported higher levels of student engagement and interactivity. "All four researchers expressed the view that some of these RA classes were among the best teaching they had ever seen, both in basic skills classes and in content-based courses, and in both interactive and in lecture-oriented classes" (Grubb et al., 2001, p. 43). Grubb et al. likewise notes that many of the instructors interviewed expressed delight and excitement about the impact RA was having on their classroom environment and on their perception that their students were become better readers and thinkers.

Notes of caution about RA and its many elements and strategies express the complexity of the intervention; at the same time, Grubb et al. (2011) reports that this may make RA more conducive to flexible uses in multiple subject areas. The report suggests that this flexibility may be positive or negative, as one of the instructors who reported RA was in fact "practicing traditional and not very effective group work assignments" (p. 45). The difficulty in finding pure forms of RA adoption, Grubb et al. (2011) suggests, may also be

positive at the community college level were faculty are accustomed and open to changing their instructional practices based on their own motivations versus that of external forces. Overall, the study concludes with several concerns over what would be necessary to scale what could be quite an effective intervention. This comes about due to the researchers discovering that of the five colleges, only one had strong, ongoing incorporation of RA, which they attribute to institutional resources such as a supportive administration (Grubb et al., 2011, p. 46). The other colleges experienced decreased use of RA, by almost half at one college, with only 14 or so of the 30 trained faculty still using the intervention. The two other colleges cited lack of ongoing resources to be able to pay for more to be trained as well as lack of a support structure when the faculty run into problems incorporating the intervention and sustaining it when faced with obstacles like resistant students or lack of self-confidence that they are integrating the strategies effectively. They conclude the report by noting that colleges which had more local resources available through ongoing professional learning in the form of faculty inquiry groups/communities of practice were the ones who had the highest levels of RA integration and impact. They note "this may be due to the fact that RA and its workshops concentrate on providing *individuals* with the skills to teach in different ways, but they do not stress the need for on-going *institutional* support as well" (Grubb et al., 2011, p. 48).

Professional Learning: Inquiry/Communities of Practice

A common thread running through studies of the impact of interventions designed to increase student success is the notion that institutional commitment to professional development plays a crucial role (Grubb, et al., 1999; Corcoran, Fuhrman, & Belcher, 2001; Desimone, Garet, Birman, Porter, & Yoon, 2002; King, 2011). In particular, professional

development designed around the formation of groups of faculty engaged in inquiry, problem-solving, knowledge-exchange activities and the like, i.e. communities of practice (CoP), increasingly shows up in the literature as exhibiting great promise. As the professional development field has come to understand, CoPs arise largely from concepts set forth by Lave and Wenger and Brown and Duguid in the late 1980s-early 1990s. These ideas gained great traction, culminating in an influential article by Ball and Cohen (1999) advocating that professional learning "could not be adequately cultivated without the development of a more substantial professional discourse and engagement in communities of practice" (p. 12). Cochran-Smith & Lytle (1999) reinforced the CoP approach the same year, detailing a conceptual framework for professional learning in a much cited work entitled, "Relationships of Knowledge and Practice: Teacher Learning in Communities."

The foundational assumption underlying CoPs is that learning happens within a social context and is not just something occurring within a person's head—it is, to quote half the title of Lave and Wenger (1991), "situated learning." As Lave and Wenger further define this cognitive process: "learning, thinking, and knowing are relations among people in activity in, with, and arising from the socially and culturally structured world" (p. 51). In this respect, Lave and Wenger (1991) supports RA's fundamental notion that learners need to use the methods and tools of practitioners within specific disciplines and thereby be apprenticed into that discipline's culture and community. Interestingly, Lave and Wenger explicitly note that they authored their work to rescue apprenticeship from what they considered its vague use and to more clearly define it by tying apprenticeship to a specific framework they call legitimate peripheral participation. In legitimate peripheral participation, beginning learners in a community of practice start at outer, less engaged

levels of participation, but in working in community with more experienced practitioners on common goals and in authentic, contextualized learning activities, they move towards increasing engagement, bringing their whole self, situated in a social and cultural context, to the enterprise. Legitimate peripheral participation then can lead to transformed identities, with the newcomer gaining more knowledgeable skills and moving from the periphery to being more at the center and involved in the core processes and practices of the CoP. "Thus identity, knowing, and social membership entail one another" (p. 53). In the context of professional development efforts such as 3CSN, Lave & Wenger's interwoven notions of situated learning and legitimate peripheral participation form not only a strong foundation for ongoing CoPs but can help grow the next set of experts who will sustain the professional learning communities going forward.

As Cox (2005) has argued, another work from 1991 focused on CoP theory, Brown & Duguid's "Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation," more specifically seeks to operationalize Lave & Wenger's legitimate peripheral participation to support professional learning and increase innovation by stressing the importance of documenting and telling the story of learning as practice. Prior to distilling their ideas for how to create CoPs which increase organizational learning, in 1989, Brown & Duguid—along with Collins—presented what was essentially the first model for the use of situated learning in the classroom. This article, entitled "Situated Cognition and the Culture of Learning," owes much to the singular work of Jean Lave, especially in terms of her conclusion in a 1988 study that learning is fundamentally contextual, thereby enabling students learning in situational learning classrooms greater levels of knowledge transference to contexts outside of the classroom. In Brown, Collins,

and Duguid (1989) they also expand upon Lave's early ideas about the efficacy of cognitive apprenticeship (1977) as well as reference her work with Wenger, in preparation at the time, on legitimate peripheral participation. Brown, et al. (1989) introduce other concepts which will prove essential to what we today view as key elements in CoPs, particularly through their example of Schoenfeld, a college math instructor who utilizes problem-solving activities with students as a primary learning strategy. The class works collectively together on problems, utilizing multiple strategies, and reflecting on their process along the way. Through this approach, Brown, et al. assert that a necessary introduction into the culture of math takes place, allowing these students to internalize conceptual knowledge and to build a belief system together—leading to much more rich and highly transferable expertise. Brown, et al. (1989) ends with a summary of what they see as the "salient features of group learning" (p. 40), features which will figure in subsequent literature on communities of practice. Among these features are: collective problem solving, playing multiple roles to flexibly and productively advance the group's work, recognizing and discussing ineffective strategies and misconceptions, and providing and building upon collaborative work skills.

Similar to their use of Lave, Brown & Duguid (1991) utilize the work of another anthropologist, Julian Orr, as the foundation for the next stage in their thinking about situated learning and the promise of what Lave and Wenger came to call communities of practice (1991). This time, because Orr's work was focused on colleagues working together in an organization vs. a mentor working with an apprentice, Brown & Duguid (1991) base their conceptual analysis on the interconnectedness of knowledge, practice, and innovation experienced amongst peers. They additionally reference legitimate peripheral

participation (Lave & Wenger, 1991) and Daft & Weick's (1984) work on "enacting" organizations, organizations which are highly self-reflective, flexible, proactive, and open to change (Brown & Duguid, 1991, p. 51). In this conceptual framework, narrative plays an important role in enabling knowledge-sharing; the practitioners share and construct meaning through story-telling about their work—making visible the complexities of their practice and thus helping each other problem-solve and discover new approaches. This collaboration leads to the rich acculturation they established as pivotal in their previous work (Brown, Collins, & Duguid, 1989). They argue that CoPs are vital to organizations as they "continue to develop a rich, fluid, noncanonical world view to bridge the gap between their organization's static canonical view and the challenge of changing practice" (Brown & Duguid, 1991, p. 50). Thus, they argue, CoPs are "inherently innovative" (p. 50).

In considering Brown & Duguid (1991) in relation to the work of 3CSN as the overarching organization and RAP as one of its internal CoPs, it is particularly interesting to note their conclusion in which they state that in order to seed innovation and learning in the workplace, the organization should take responsibility for creating spaces for CoPs to grow, particularly for CoPs that challenge conventional wisdom. They believe that even very large organizations, if "reflectively structured" (p. 54) become significantly positioned to promote innovation through the spaces they've opened for largely autonomous, open-thinking CoPs. But they caution that the organization's architecture must be such that the narratives coming out of the CoPs can circulate and be effectively accessed. For this to happen, the information, learning, and innovation "must stretch from the level of individual communities-of-practice and the technology and practices used there to the level of the overarching organizational architecture, the community-of-communities" (Brown &

Duguid, 1991, p. 55).

In the late 1990s, Wenger begins to work on his own and with new partners to bring together the final underpinnings to situated learning theory as applied to communities of practice. To do so, he picks up on some ideas that Brown & Duguid (1991) had introduced when they described CoPs as emerging when individuals are mutually engaged in a joint practice around which they share a common repertoire. These concepts of mutual engagement, joint practice, and common repertoire become the key characteristics Wenger moves to the center of his work, and they are the characteristics typically ascribed to and used to analyze CoPs in subsequent literature (Storberg-Walker, 2008; Cuddapah & Clayton, 2011; Crafton & Kaiser, 2011; Kim & Merriam, 2010; Printy, 2008; Guldberg, 2008; Hodkinson & Hodkinson, 2004). In 1998's *Communities of Practice: Learning, Meaning, and Identity*, Wenger begins to flesh out the idea that CoPs in and of themselves are learning entities; in other words, they benefit from metacognitive awareness as a unit—a CoP can become more effective by "knowing what it knows" (p. 8). There is a symbiosis between the practitioner and the CoP. Learning happens as individuals participate in the social activity of the community, and individuals shape their ideas about who they are and what they think and do in relation to the CoP (Wenger, 1998). Wenger more and more begins to see CoPs as fundamental units that can be used within and across organizations to seed learning and innovation (Wenger, 2000). In effect, CoPs operate as "'social learning systems' where practitioners connect to solve problems, share ideas, set standards, build tools, and develop relationships with peers and stakeholders" (Snyder, Wenger, & Briggs, 2004, p. 2). This framing of CoPs as social learning systems that can have an impact on organizational knowledge and success has also led Wenger to begin to build frameworks

through which the value of CoPs can be measured qualitatively (Wenger, Trayner, & de Laat, 2011). This has given organizations such as 3CSN tools through which various elements of its work can be documented, including its Reading Apprenticeship Project.

Effectiveness of Professional Development and Interrelatedness to Community of Practice/Faculty Inquiry Contexts

By and large the many studies on professional development emphasize the effectiveness of many of the same qualities privileged by Reading Apprenticeship as a strategy within the classroom as well as communities of practice as an approach to professional and organizational learning; these include situated learning contexts (often referred to as authentic experiences), focus on content and how students learn the content, time intensive and ongoing vs. once and done, central emphasis on reflection/metacognition, and high amounts of collaboration (Ball & Cohen, 1999; Borko, 2004; Garet et al., 2001; Desimone et al., 2002; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Wayne et al., 2008; Desimone, 2009; Guskey & Yoon, 2009). These qualities also extend to those works that specifically emphasize the kinds of professional development necessary for community colleges to foster greater student success (Boroch, et al., 2007; Grubb, et al., 1999). A general consensus has grown that professional learning benefits from a community of practice/inquiry approach, as it then becomes embedded in the day to day work of the practitioner and at the same time provides the practitioner with a networked community with which to share best practices and to reflect more deeply on how learning happens within its situated context (Cochran-Smith & Lytle, 1999; Borko, 2004; Au, Raphael, & Mooney, 2008; Grubb, et al., 2011). Borko (2004) particularly emphasizes how communities of practice strengthen group responsibility and "willingness

of community members to assume responsibility for colleagues' growth and development" (p. 6).

There are reservations associated by some with a community of practice approach in professional development. Cox (2005) points out that in Lave and Wenger (1991) the very definition of Communities of Practice is never given with any kind of precision. He also points out that the examples upon which Brown and Duguid (1991) advance CoP theory are not particularly relatable to the classroom (Cox, 2005). Cox (2005) also pokes holes in Wenger (1998) by suggesting that the examples upon which Wenger relies are collaborations amongst alienated workers and therefore do not seem a strong foundation upon which to argue for CoPs as organizational learning and management tools. Hodkinson & Hodkinson (2004) also grapple with the evolving definitions of CoPs in the seminal literature, concluding "it is not helpful to develop this theorising around universal definitions and boundaries of communities of practice, or their supposedly generalisable characteristics" (p. 8). Storberg-Walker (2008) focuses on Wenger's theories about CoPs and the 13 analytical elements he posits in his 1998 book. Her central argument is that the 13 elements cannot be translated into practice when examined through an applied theory-building conceptual framework, suggesting that Wenger's model has no empirical basis from which to generate results (Storberg-Walker, 2008).

No matter the approach, however, most of the studies about the impact of professional development at best describe and sometimes quantify the increased use of instructional strategies or tools by faculty as a result of their participation (Desimone, et al., 2002; Garet et al., 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007). This has resulted in these same researchers noting how difficult it is to empirically demonstrate the links

between professional development and student achievement, even though there is certainly an intuitive connection as well as frequent and logically modeled conceptualizations supporting these links (Borko, 2004; Desimone, 2009; Guskey & Yoon, 2009; Wayne, et al., 2008). The largest research synthesis about the impact of professional development on student outcomes was conducted by scholars from the American Institutes for Research and funded by the U.S. Department of Education (Yoon et al., 2007). 1,343 studies were analyzed to determine whether or not they met scientific standards for credible evidence. The authors of the study later reported to be astonished that only 9 of the 1,343 studies could be determined to meet the criterion standards of credibility, meaning that they in fact could be judged conclusively as true empirical studies demonstrating professional development's impact on student learning (Guskey & Yoon, 2009).

Based on a review and analysis of the extant empirical research, Desimone (2009) determined that a common set of core features for effective professional development show up again and again in the literature, and that these core features could be used to describe the activities that result in changes in faculty knowledge, faculty practice, and student achievement. The five features noted in Desimone's (2009) synthesis are:

1. Content focus: effective professional development emphasizes course content matter and how students learn that content.
2. Active learning: higher impact on practice is achieved through engagement in interactive presentations, activities, and assignments during professional development versus passive, lecture-oriented sessions.
3. Coherence: the professional development needs to cohere with other professional

learning experiences as well as with participants' knowledge and beliefs and school, district, and state policies and practices.

4. Duration: the professional development needs to be spread out over time and include 20 or more hours of contact.
5. Collective participation: groups of practitioners from the same subject, school, or area should experience the professional development together and create a collaborative learning community.

After outlining these core features, Desimone (2009) argues that their consistent measurement in rigorous studies of professional development "has the potential to move the field forward in terms of building a consistent knowledge base" (p. 184). The previously cited quasi-experimental study by Greenleaf, et al. (2011) analyzes the professional development efforts of Reading Apprenticeship with the features outlined by Desimone (2009).

A few other works, more prescriptive in nature, suggest other conceptual frameworks for evaluating professional development and linking it to institutional change. Bryk, Gomez, & Grunow (2010) suggests an alternative approach to professional development, linking it significantly to improvement science while nevertheless situating it within a community of practice framework. This study was done in conjunction with a national community college initiative, Statway, which seeks to shorten the developmental math sequence by creating a one semester pre-statistics course as the pre-requisite to a non-STEM math completion pathway. The study provides suggestions as to how to bring to scale best practices through the integration of multiple solutions/approaches, "pre-existing organizational conditions," and adequate professional development (Bryk, Gomez, &

Grunow, p. 15). Bryk, Gomez, & Grunow describe three cases where organizations have aligned their research and development efforts to improve practice and outcomes on a large-scale and to hopefully ensure that empirical evaluation can take place. They also describe some structuring elements including membership criteria, common and measurable goals, and community building approaches that support the need for seeding and facilitating strong peer-to-peer networks focused on solving common problems. Bryk, Gomez, & Grunow acknowledge their indebtedness to another work, Berwick's 2008 commentary describing the gap between needing to improve practice and knowing how to do it. Berwick (2008) argues for a "science of improvement," which is based on conducting a fleet of coordinated inquiries that are practical in design and measurement. The outcomes-based inquiries advocated by Berwick seek to analyze what works, for whom, and under what set of conditions.

Wenger, Trayner, & de Laat (2011) provides another conceptual framework for evaluating professional development that links to improvement science and its inherent emphasis on practicality and value creation. This paper presents a framework to assess the value of communities and networks through the linkage of specific activities to desired outcomes. The authors define the distinction between communities and networks yet argue that these are not and should not be separate structures. The work of each, communities and networks, are described in terms of how they form social fabrics of learning and can be optimized by developing together. Wenger, et al. present two data sets, 1. a set of cycle-specific indicators describing levels of value as a result of the activities, interactions, and products of networks and communities, and 2. a format for the telling of value-creation stories by network and community participants. Using both the cycle-specific indicators

and value-creation stories allows the leveraging of the complementary purposes of networks and communities according to their conceptual framework. The paper concludes with a toolkit for collecting data to tell stories about and to measure the value of communities and networks.

Implications of the Literature Review

Based on this literature overview, my study attempted to address gaps as well as extend opportunities for approaching professional development with more nuance and possibility. Certainly there is a great need for discovering ways for practitioners to ensure greater building of literacy skills in order to contextualize and accelerate student completion and to close the tremendous achievement gaps that exist in community colleges across the country and in California. The literature suggested that Reading Apprenticeship holds promise as a just in time approach that helps students achieve vitally needed critical thinking and cognitive skills necessary to succeed across the curriculum. However the research also revealed a weakness in the scaling up of RA as an intervention largely due to its focus on individuals enrolling in training and the lack of ongoing support and networking for participants. The only study of RA at the community college level (Grubb, et al., 2011) suggests that, if supported by professional development consonant with RA's situated learning and cognitive inquiry approach, there would be much greater institutionalization of its interventions. Because 3CSN's Reading Apprenticeship Project is modeled on an inquiry/community of practice approach, it provided just such an opportunity to study the level of adaptation of RA and its impact on practice. This research on RAP also doubled the number of studies about RA at the community college level because, as previously noted, only one other study currently exists. While this study of

3CSN's RAP did not produce empirical results linking professional development to student achievement due to the time constraints with which it was conducted, it nonetheless sought to move the field forward by carefully framing its design around replicating and thus testing several features of effective professional learning as commonly defined by experts. The study then attempted to document the extent to which increased faculty capacity and ongoing RA integration was evidenced by using research based value frameworks to track how RA adaptation was being reinforced or enhanced by the regional and state networking that had taken place through 3CSN.

CHAPTER THREE

Introduction

In the preceding chapters I have detailed the need to transform the delivery of basic skills instruction in order to increase student acquisition of the essential literacy and numeracy skills necessary for college-level work across the disciplines. As I've also noted, while increasing the ability of underprepared and underserved students to acquire the skills necessary for college success is a critical component of the mission of community colleges, the fact remains that faculty, staff, and administrators have historically received little training in how to effectively do so.

Study Setting

For one of the system-supported professional development efforts underway, California Community Colleges' Success Network (3CSN), a study was conducted to examine its Reading Apprenticeship Project (RAP) innovation on classroom practice and on faculty understanding of student engagement and progress as a result of incorporating the innovation. This descriptive study examined the extent to which faculty believed the Reading Apprenticeship (RA) framework had been incorporated into their practice and in what ways. It also chronicled faculty beliefs about RA's influence on how learning happens in their disciplines and the extent to which they thought they had transformed their teaching in ways that impact the cognitive growth of students. The research questions addressed were these:

- In what ways, if at all, are participants implementing the Reading Apprenticeship framework?

- To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' beliefs about how learning occurs in their disciplines?
- To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' instructional practice?
- In what ways, if at all, do participants perceive that their implementation of the RA framework helps to increase student engagement in their classrooms? Helps to increase student achievement?

This chapter describes how the study was designed largely around analyzing the viewpoints expressed by faculty during individual and group interviews. The study of the faculty RA experience was accomplished through analysis of instructional artifacts shared by the interviewees as well as by observation of the use of RA by the faculty in the classroom. Additionally, in chapter five, the design, methodology, and analysis of a survey administered to 126 California community college faculty, inclusive of the seven sub-group RAP practitioners, will be detailed. The survey's results provided information about how the key informants' knowledge of the RA framework and its application compared with the overall population of RA faculty trained in California over the past nine years.

Method

The design of this study highlighted the experiences of the practitioners to as richly as possible detail the what, how, and why of their RA adaptations within a networked community context (i.e. 3CSN's Reading Apprenticeship Project). The resulting well-detailed narrative of their professional learning experience produced findings potentially practical to not only other faculty grappling with discipline-specific literacy issues but also to leaders who are striving to shape replicable and scalable student success initiatives.

The study was conducted in five main stages. First, the seven member sub-set RAP group was observed during a final debriefing of their faculty inquiry focused on interactive learning modules created by ETS. Second, this group was interviewed in depth, particularly in regard to their perceptions about their professional learning experiences as part of this focused faculty inquiry group as well as part of the larger Reading Apprenticeship Project's (RAP) community of practice (CoP). Third, each of the seven was individually interviewed as to the extent to which they believed they had incorporated the Reading Apprenticeship framework into their practice, in what ways, and with what impact on student engagement and performance; discussion of RA-related instructional artifacts they brought with them to the interview also occurred. Next, the study's participants were individually observed in the classroom, with a particular eye towards whether or not the key ideas and practices discussed in the interviews were in evidence. In the fifth and last stage of the study, the participants participated in a second group interview. This interview allowed for follow-up questions about what was observed during the researcher's classroom visits and had a primary focus on the participants' as well as the researcher's perceptions about student engagement and performance in relation to RA. This final group interview additionally looked across the community of practice, comparing information about the interviewees' classroom and college experiences, including the extent to which they believed their campus, administrative, departmental, discipline, and peer experiences impacted their incorporation of RA and in turn impacted student engagement and performance. While collecting the qualitative data during these five stages, I additionally administered a questionnaire to 126 California community college faculty who had been trained in RA in order to produce comparative data regarding their knowledge of the RA framework and its

application versus the study participants'. The design, methodology, and analysis of the survey and its results are detailed in chapter five.

A goal throughout the study was to have findings about the faculty practitioners (i.e. findings about their experience while adapting the intervention and findings about the perceived impact of these adaptations as the practitioners experience them) so that intended users of the study could understand how the practitioners made meaning out of their experiences with the Reading Apprenticeship intervention, including the ways that they made meaning with each other, as this intervention was taking place within the context of a community of practice/faculty inquiry group. The study's focus on the practitioners' experiences enabled the researcher to take what Maxwell (2013) describes as a "genuinely qualitative" approach that took "account of the theories and perspectives of those studied, rather than relying entirely on established theoretical views or the researcher's perspective" (p. 53). It chronicled faculty beliefs about RA's influence on how learning happens in their disciplines and the extent to which they thought they transformed their teaching in ways that impacted the cognitive growth of students. Emergent themes regarding both challenges and opportunities faced by faculty were analyzed in the findings chapter along with recommendations for action and/or further study in the discussion chapter.

Population and Sample

The study focused on one of 3CSN's communities of practice, the Reading Apprenticeship Project (RAP). More than 500 faculty from over half of California's 112 community colleges have participated in RAP activities. More specifically, the seven key informants making up the sample in this study are experienced RAP faculty who form the

membership of a small subset faculty inquiry group 3CSN launched, in partnership with the Educational Testing Service (ETS), to study the use and development of formative cognitive assessments to track learning gains. The seven participants in this study have experienced multiple levels of training in RA sponsored by 3CSN. Like the overwhelming majority of those participating in RA training across California's community colleges—over 85% of individuals taking part in training during the past three years—they are all women. The seven participants represent several disciplines and departments: Rory, age 39, is from English (English Division) and has taught for 18 years, 9 in community colleges and 9 at university level; Angela, age 43, is from English as a Second Language (Language Division) and has taught at community colleges for 18 years, at university for 2, in K-12 for 2, and taught for 1 year outside the U.S.; Liana, age 40, is from Physics (Physical Sciences Department) and has taught in the U.S. at community colleges for 3 years in addition to 4 years at K-12 & CC level outside the country; Laura, age 48, is from Psychology (Psychology Department) and has taught in community colleges for 9 years and at university level for 11; Kendall, age 36, is from Learning Skills (Center for Academic Success) and has taught in community colleges for 16 years; Catherine, age 37, is from Math (Mathematics Department) and has taught in community colleges for 13 years; and Vivienne, age 60, is from Counseling (Counseling and Career Services Division) and has counseled as well as taught on and off for 34 years in community colleges. Laura is the only first generation college goer, Vivienne the only person of color (African American), and Liana the only non-native English speaker (Armenian is her first language). All are full-time faculty with the exception of Liana who has a split assignment, half faculty and half classified staff. The study participants teach several different levels, from basic skills to transfer levels, and in

different settings, including courses conducted in tutorial centers, online, and as part of learning communities. Kendall and Laura teach at Metropolis Northeast City College, Liana teaches at Metropolis Northwest City College, and the rest teach at Arroyo Hills College.

As part of their membership in the RAP sub-group, they reviewed materials and made suggestions for how to incorporate elements from Reading Apprenticeship into online modules designed to help build students' cognitive reading ability. The modules were designed to be reusable learning objects instructors could select from and build into their curriculum. The subset RAP inquiry group tested the modules on students at their colleges and reported feedback to ETS on the students' experiences of working through the modules. These seven were chosen by 3CSN's Executive Director and RAP Coordinator to participate in this sub-group conducting the ETS faculty inquiry because they were judged to be RAP exemplars—they had previously demonstrated their knowledge of the RA Framework through not only participating in RAP but also facilitating RA in 3CSN-sponsored activities, they represented a diversity of disciplines and departments, and they had additionally demonstrated exemplary skills in leadership and pedagogy through related 3CSN training activities.

The sub-group's foundational knowledge of one another stemming from previous interactions in 3CSN-sponsored activities was also a factor in their selection. Rory and Laura first met each other in 2011 when they were part of the same cohort of 3CSN's Faculty Teaching and Learning Academy (FTLA), a hands-on, semester-long institute focused on increasing student engagement and achievement through incorporating 21st Century instructional technologies and learner-centered pedagogies. The next year, Rory became a facilitator for FTLA and recruited Angela, Catherine, and Vivienne from her home

campus for the 2012 cohort. During June of 2012, six members of the study came together, some as participants (Angela, Catherine, Laura, and Liana) and some as facilitators (Rory and Kendall), during 3CSN's week-long leadership institute, BSILI, held at the UCLA Lake Arrowhead Conference Center. Vivienne also worked with Kendall, Laura, and Rory on presenting the results of FTLA-related RA activities to the Metropolis City College District's Board of Trustees. In short, these individuals were deemed to have the sufficient background and training in RA, established connections between and amongst one another and one another's colleges, plus substantial enough experience with other parts of the network to quickly, successfully, and independently run a small research project on behalf of 3CSN. The participants' advanced RAP experience and deep familiarity with one another made it more likely they would demonstrate an advanced ability to describe their practice in reflective and sophisticated ways and thus more easily switch between the examination of their adaptations of the RA intervention and their reflection on the experience of networked learning as framed by 3CSN in the RAP community of practice.

I observed the group during their last debriefing meeting discussing the ETS inquiry. I also observed them individually teaching class sessions or facilitating 3CSN professional development activities. As a group, I interviewed them twice, in addition to interviewing each of them one-to-one.

Data Collection Procedures

The primary focus was on collecting data from practitioners. All of the individuals (seven in total) participating in the ETS-related faculty inquiry group were interviewed in depth in order to obtain detailed histories of their experiences with RA and within the 3CSN CoP framework. Two group and one individual interview occurred with the seven

practitioners participating in the study. The interviews were audio taped, and the transcripts were analyzed using content and thematic analysis. Interview protocols were used (see Appendix A). These were semi-structured interviews, using the interview protocol but allowing participants to speak in depth about their experiences and to include information that sprung naturally to mind and spoke to each practitioner's unique experience. Participants were invited to perform member checks.

These interviews took place in person as all of these participants work in the Metropolis region. The initial group interview lasted approximately 90 minutes as did the final group interview which took place after all individual interviews and observations were completed. The individual interviews lasted 60 minutes on average. The group interviews' emphases were on comparing ways in which the participants felt they had been supported (or not) in an ongoing manner on their campuses and via the professional development, i.e., the networking/CoP opportunities with 3CSN.

An examination of the actual RA interventions put into practice was conducted through classroom observation as well as through analyses of practitioners' teaching and learning documents/artifacts such as:

- Lesson plans reflecting RA incorporation
- Text sets and reading assignments and instructions
- Pre and post embedded reading assessments
- Reflections on instructional goals with RA
- Class assignments incorporating RA
- Campus implementation plans involving RA

An observation protocol from WestEd's Strategic Literacy informed the field notes taken for each observation, with each observation lasting between 60-80 minutes. The field notes were analyzed for themes and content matching the study's research questions. The artifacts/documents were analyzed similarly.

The table below illustrates how the data was made discoverable and collectable in relation to the research question being addressed.

Table 1. *Data collection and units of observation related to research questions*

Research Question	**Data Collection**	**Units of Observation**
In what ways, if at all, are participants implementing the Reading Apprenticeship framework?	Interview data from participants. Observation in classrooms. Field notes and coded transcripts. Analysis of participant artifacts/documents.	*Faculty report either in the interview process or in meta-analysis artifacts/documents:* Examples of their efforts to create impactful lessons based on the RA framework *As observed by researcher during class visits and artifact analysis:* Teacher utilizes RA techniques in the class such as think alouds, final word, etc. Syllabus includes specific mention of norms, assignments, text sets associated with RA Class discussion incorporates meta-cognitive approaches specified by RA Group work and individual classroom activities include RA protocols Teacher demonstrates scaffolded learning strategies throughout the class period

To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' beliefs about how learning occurs in their disciplines?	Interview data from participants. Analysis of participant artifacts/documents.	*Faculty report either in the interview process or in meta-analysis of artifacts/documents:* Examples of places in their practice where they feel they build on existing student strengths to scaffold learning Examples of increased skills in modeling important academic behaviors for students Examples of increased ability to flexibly revise classroom activities to better meet learning needs Reports of less anxiety about covering everything and more confidence that students are learning how to learn Reports of increased networking with peers across the curriculum
To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' instructional practice?	Interview data from participants. Analysis of participant artifacts/documents.	*Faculty report either in the interview process or in meta-analysis artifacts/documents:* Examples of revised assignments, changes to classroom management, classroom materials, instructional delivery and design Examples of new or improved tools at hand in their teaching toolbox Examples of making practice more visible to peers through knowledge-exchange in community of practice settings,

		professional development activities, etc.
In what ways, if at all, do participants perceive that their implementation of the RA framework helps to increase student engagement in their classrooms? Helps to increase student achievement?	Interview data from participants. Observation in classrooms. Field notes and coded transcripts. Analysis of participant artifacts/documents.	*Faculty feel students are more engaged as evidenced by:* More students participating in discussion and group activity, both in-class and virtually Increase in students asking questions Increase in students referring to their experience of learning (i.e., increase in meta-cognitive behaviors as seen in journal entries, writing prompts, exam answers, problem-solving activities, etc.) Students exhibit increased ability to model critical reading behaviors with each other Students self-report increases in engagement *Faculty feel students are achieving more as evidenced by:* Students write more on tests and assignments Students demonstrate they've internalized routines and norms for critical thinking by being able to take the lead in class activities without prompting Students perform better on tests and assignments Students show improvements in pre and

		post embedded reading assessments Students self-report increases in achievement

Data analysis

Interviews were transcribed, coded, and analyzed immediately after each was conducted in order to make sure the information stayed fresh. I searched on an ongoing basis for emergent themes and new questions to explore. I strove to take advantage of opportunities along the way to look for patterns across individuals. I kept the following categories in mind as I analyzed the data from the interviews:

1. Meaningful activities engaged in through RAP.
2. Specific insights gained through RAP (includes comments made about access to useful material or information).
3. Perceived changes in practice. How did participation in RAP prompt changes in your practice that would not have happened otherwise?
4. Perceived changes in performance:
    a. Difference(s) made to participant's performance. How did this contribute to your personal/professional development?
    b. Contribution(s) to student performance. Qualitatively? Quantitatively?
5. Change/transformation. Has RAP changed your or some other stakeholder's understanding of what matters?

These categories are based on a template used in data collection in Wenger, Trayner, & de Laat (2011). This framework, theorized under the direction of perhaps the foremost scholar studying CoPs today, Etienne Wenger, provides useful indicators through which

interventions conducted through networks and communities can be analyzed in regards to value creation. The five value creation cycles are: 1. Immediate value: Activities and interactions; 2. Potential value: Knowledge capital; 3. Applied value: Changes in practice; 4. Realized value: Performance improvement; and 5. Reframing value: Redefining success (Wenger, Trayner, & de Laat, 2011). The cycles of value creation also exhibit parallels to the four dimensions of the Reading Apprenticeship Framework: the Social and Personal, Knowledge-Building, and the Cognitive Dimensions (Schoenbach, Greenleaf, & Murphy, 2012). Where appropriate, data was additionally examined in light of their relationship to the RA Framework

I believe the stages of the research design and the iteration of the interview protocols ensured consistency and triangulation of the data. By first conducting interviews with all seven members of the inquiry group and then observing their teaching, I checked to see if there was discernable evidence that their incorporation of the RA framework actually took place. This same triangulation of the data occurred during the second group interview where I asked follow-up questions based on the classroom observations as well as gave them opportunities to comment on the artifacts/documents demonstrating their use of RA that they had shared. And finally, the cross talk amongst participants during both group interviews allowed for multiple levels of reflection and created further opportunities to explore recurrent themes and bring to bear the collective intelligence of the practitioners on the research questions.

I analyzed patterns found across observations[3] and artifacts. Artifacts were analyzed prior to the second group interview to think about themes and further questions to explore; this was in addition to ongoing analysis of artifacts coming from the classroom sessions I observed. The artifacts and observation field notes were shared with all seven interviewees in order to solicit their analysis and feedback during the final group interview.

Positionality

All practitioners in the Reading Apprenticeship Project agreed to share their learning as part of their participation in this state-funded project. The seven faculty participants in the study additionally agreed to comprehensive and ongoing self-reporting and reflection as part of a leadership inquiry group associated with piloting some ETS cognitive assessments in conjunction with their regular RA interventions. While I made clear to them that their participation in my study was voluntary, all seven members of the ETS-related leadership inquiry group agreed to take part when asked. I believe these individuals were open to participating because the principles of metacognitive conversation form the basis of RA—and they felt that talking about their professional learning for this kind of study was not only valuable in looking at 3CSN's Reading Apprenticeship Project but also contributed to their increased understanding of their own practice.

In conducting this study I had to take off my administrator hat of project director for the overall initiative, 3CSN, which sponsors and supports RAP. I believe this was accomplished because even though I coordinate the overall resources given towards

[3] Field notes included observations analyzed according to an observation protocol developed by WestEd's Strategic Literacy Initiative.

conducting professional development across 3CSN, I have not, do not, and will not design any of the specific programs of RAP. Further, I believe that the interactions that the participants in the study had with me previously allowed trust to build in that they saw me as someone who has worked for a number of years to bring significant resources and support for ongoing, high impact and high quality professional learning in my own district and across the state.

At the same time, I worked hard to set boundaries and to keep my researcher's hat on when I was in contact with them. It was definitely possible that participants may have told me what they thought I wanted to hear. To try to mitigate reactivity I triangulated the data gleaned from the interviews, observations, and artifacts. I believe that the interview protocols, the usage of previously vetted observation protocols by Schoenbach, Greenleaf, & Murphy (2012) and the Wenger, Trayner, & de Laat (2011) value creation conceptual framework gave me tools to increase my ability to keep my researcher hat on. I also sought input from others, particularly 3CSN's project evaluator, Dr. Tina Christie, and from the RAP coordinator, in order to set clear boundaries for my role as researcher vs. 3CSN director. Additionally, I performed regular self-checks to test ways in which I might be wrong and to think about alternative explanations or analyses for the data.

Because participatory evaluation is embedded in 3CSN and its Reading Apprenticeship Project and is made transparent to participants in the RAP professional development activities, I expected, at base, to sustain a sufficient level of credibility and trustworthiness throughout my research. Nevertheless, I continually took steps to mitigate reactivity. I believe this was readily accomplished due to the fact that the professional development conducted is time-intensive and the intervention the participants are being

trained to use has as its primary foundation metacognitive conversation. Therefore, participants were quite used through repeated practice to be self-reflective and transparent. I also took care to triangulate my data through not only my own coding and analysis of the several types of data I collected but also by incorporating participants' input into data analysis through member checks of interviews, through group participation, and through the collection of value narratives through the value creation story tool (Wenger, Trayner, & de Laat, 2011).

In the end, I believe the credibility of my study was aided by the fact that my genuine focus was on the participants' perceptions—i.e. what Maxwell describes as a qualitative researcher's interest in "how participants make sense of what has happened (itself a real phenomenon), and how this perspective informs their actions, rather than in determining precisely what happened or what they did" (p. 81).

CHAPTER FOUR

Introduction

From October 2013-March 2014, I conducted a study examining the system-supported California Community Colleges' Success Network (3CSN) and its Reading Apprenticeship Project (RAP) professional development community of practice (CoP). This research recorded the extent to which seven faculty participating in 3CSN's RAP believe the Reading Apprenticeship (RA) framework had been incorporated into their practice and in what ways, as well as gathered details about the experience of the seven within the CoP. This chapter chronicles qualitative findings achieved through examining data obtained from an initial group interview, individual interviews and observations, and a final group interview.

The following sections of this chapter will report the main findings of the study and will be organized around Wenger, Trayner, & de Laat's five cycles of value creation in networks and communities. The research findings will be categorized according to how substantial patterns of evidence pointing to certain indicators of value creation provide answers to the research questions posed by this study. Each of the following five sections of the chapter will begin with an explanation of the relationship of the particular value creation cycle to the RA Framework and to the research question for which evidence is being presented and findings reported.

Findings

Section One: Meaningful Activities Engaged in through Reading Apprenticeship Project

- In what ways, if at all, are participants implementing the Reading Apprenticeship framework? (Value Creation Cycles 1 & 3)

To gain insight into the extent to which the RA Framework has been implemented, it is useful to examine the exemplar participants' experiences at two levels, beginning first at the level of engaging the routines with each other during CoP activities and then at the level of practicing them instructionally in the classroom or as RA facilitators during faculty trainings. Here in section one there will be an examination of how the RA Framework has informed their interactions as a CoP; later in section three of the chapter, I will examine evidence of the ways in which the RA framework has been integrated in classroom and professional development settings.

Cycle one of the Wenger, Trayner, & de Laat (2011) conceptual framework examines the immediate value of activities and interactions network and community participants engage in with one another. The activities and interactions may include helping each other think through problems of practice, providing tips and sharing stories, asking questions of and giving input to one other, and otherwise connecting with each another through inquiry and knowledge exchange (Wenger, Trayner, & de Laat, 2011). Consonant with cycle one, in interviewing and observing the seven RA exemplars, there were findings concerning the ways in which their activities and interactions with each other produced value in and of themselves and demonstrated the ways in which they have internalized the RA Framework with each other.

Finding #1: The practitioners report gaining meaningful emotional and pedagogical support through meeting as a CoP; their descriptions of how the CoP helps them develop personally and professionally mirror aspects of the social and personal dimensions outlined in the RA Framework.

All of the seven study participants asserted the essential value of getting together in their community of practice rested initially on the emotional support derived from knowing they were not alone in working through the day-to-day challenges of teaching and learning. More than anything else, the group found inherent value through simply being together as it helped them form a less isolated view of themselves as practitioners. As an example, Vivienne volunteered that because her tendency was towards being introverted or as she put it being an "island," the opportunity for "connections and networking" helped her better understand herself, helped her learn "about what I have to offer that I didn't know I had to offer before." This aligns fundamentally with what Wenger (1998) describes as the essential social value of CoPs, that of developing a symbiosis between the practitioner and the CoP; in other words, learning happens as individuals participate in the social activity of the community, and individuals shape their ideas about who they are and what they think and do in relation to the CoP (Wenger, 2000).

All went on to indicate that the larger benefit of belonging to this group resided in the ways in which their coming together created an environment primed not only to support them emotionally but to also assist them pedagogically. In keeping with attending to the social dimension (Schoenbach, Greenleaf, & Murphy, 2012), the CoP, according to the participants, cultivated a nurturing and supportive environment where successes and failures in the classroom could be shared, feedback received, and problems tackled. Or, as Rory simply described it, they could "just come with their lesson plans, their syllabi, or whatever, and just think how they fit this [RA] thing in." This was an important development for them; the regular space the CoP provided for them to share and problem-solve allowed them, in effect, to build a collective sense of ownership around the RA

strategies. One clear illustration of the impact of collective ownership was the lack of self-consciousness displayed about failed implementations of RA in the classroom. When discussing the fact that many students didn't like a particular RA routine used in the ETS online modules, the group decided this was an opportunity for them to work together to scaffold the assignment more clearly. Collectively they felt confidence in the routine because they had used it successfully before and had shared those successes with one another, and now they were set to forge ahead and figure out how to integrate it more fully within this new context.

Linking the Personal Dimension to the Collective Enterprise.

As with the personal dimension referenced in the RA Framework, the participants felt that their prior experiences in 3CSN enhanced their ability to build upon the individual strengths each brought to the inquiry group. In explaining the dynamics of the inquiry group, the seven acknowledged the personal values they respected in each other as well as the distinctive professional expertise they brought to the table. Angela believed "because we have this kind of foundational relationship where we all really know, like, and respect each other, that it makes the group more functional." And for them this translated to a much more cooperative, collaborative space where the group members felt it's not just that they don't feel as isolated, it's that the resulting work was better.

The group was aware that much of the value they place in participating within this CoP arose from the varied expertise each brings to the collective. They believed that the variety of disciplines represented in their group as well as the networking across colleges and districts taking place between them made this CoP particularly valuable. The essential rewards of working across these various disciplines and institutions was generally

described in terms of bringing more perspectives and solutions to the table, thus bringing more confidence that a collective wisdom was being formed. Rory pointed out that this kind of community building had much in common with the strengths-based approach to teaching itself that RA advocates. The RA Framework stresses that you build a safe environment for students to grow their learning by building on the resources the students already bring with them (Schoenbach, Greenleaf, & Murphy, 2012). In this way, students can more easily share their difficulties in reading and work with each other, using each other's strengths and resources to develop goals for improvement (Schoenbach, Greenleaf, & Murphy, 2012). Angela spoke to this interplay between the CoP and the individual. She described herself as such a "social creature" that she had normed to "the bad habits of my department, knowing they were bad." These specific members in the CoP—"it couldn't be any group, no, no, no," said Angela—because their disciplinary backgrounds, habits of mind, teaching talents, smarts, and so on, provided not only support around incorporating RA to her as an individual, but they helped give meaning and shape to a collective enterprise.

In observing the group, the interplay of expertise and the reliance on each other's particular gifts of disposition were in evidence. They routinely checked in with the more quiet members of the group to make sure their views were being recorded. If a particular question or topic seemed to demand input from a particular disciplinary point of view, the person with that background was called upon to address it. Evidence of conscious group norming was also observed when one of the members would note if they were getting into the "weeds" and needed to move to the next topic or task or when someone would say-back what another had said to make sure the point was being understood.

Grounding Practice and Seeding Potential through Meaningful Interaction.

In the ways that the seven described the community building with each other around the shared domain of Reading Apprenticeship, including their statements about the strengths brought by each to the group and of their trust to be open about their practice with one another, as well as through observing the group in action, the CoP exhibited evidence of internalizing the social dimension aspect of the RA Framework (Schoenbach, Greenleaf, & Murphy, 2012). The study participants each described instances of personal growth—another important dimension in the RA Framework—by citing greater awareness of their contributions as practitioners supporting and developing one another and also by describing their growth as educators supporting and promoting greater student achievement in reading and cognition (Schoenbach, Greenleaf, & Murphy, 2012). The kind of personal and professional growth described by the group remains in line not only with RA's personal and social dimensions but also parallels theories about the impact of CoP-based professional learning. As Wenger (1998) points out, learning happens as individuals participate in the social activity of the community, and individuals shape their ideas about who they are and what they think and do in relation to the CoP.

In Wenger, Trayner, & de Laat's conceptualization (2011), indications of immediate value gleaned from the activities and interactions of the group itself, such as those described in this section, have importance in helping to ground practice but they also have an aspirational dimension in helping to frame possibilities for the future. The CoP consistently exhibited these practical and aspirational signs through assertions expressing confidence in the skills they brought to the group alongside declarations of hopefulness that their group's joint enterprise was making a difference. The various instances of the key

informants feeling less isolated as well as more confident about their abilities as practitioners—especially in terms of bringing valued expertise to the collective—attest to the inherent meaningfulness of their participation in the CoP.

Section Two: Specific Insights Gained through Reading Apprenticeship Project

- To what extent, if any, has 3CSN's Reading Apprenticeship Project transformed participants' beliefs about how learning occurs in their disciplines? (Value Creation Cycle 2)

A principle of the Reading Apprenticeship Project is that there are "discipline-specific academic literacies" and that practitioners can surface these in order to apprentice students and thus make students better readers, thinkers, and problem solvers within the discipline (RAP website, accessed April 12, 2014). Much of the work that RAP members do focuses on teasing out how they came to be the expert readers, thinkers, and problem-solvers they've become and then figuring out ways they can design class activities and assignments so students can learn these skills as well. The kind of knowledge building that RAP members do is consonant with cycle two of the Wenger, Trayner, & de Laat (2011) conceptual framework which assesses the value of activities and interactions network and community participants engage in by looking for indications that the participants have gained specific insights—i.e. have built knowledge capital. It is also consonant with what is termed the "Knowledge-Building Dimension" of the RA Framework which includes "knowledge about content, about texts, about language, and about disciplinary ways of thinking and communicating" (Schoenbach, Greenleaf, & Murphy, 2012, p. 36). Indicators of knowledge capital in network and community settings may include understanding the usefulness of a particular skill, acquiring a key piece of information, building shared vocabulary around practice, developing a shared set of resources, tools, and references, and

harnessing a sense of collective voice and group identity (Wenger, Trayner, & de Laat, 2011). Conceptually undergirding this cycle are Wenger, Trayner, & de Laat's simultaneous notions that group insights/knowledge acquisition have inherent value whether or not ever put into action and that network or community knowledge capital has significance in and of itself as it increases "the potential for collective action" (p. 20). In interviewing and observing the seven RA exemplars, there were findings concerning the ways in which their activities and interactions with each other helped the members learn new insights about the value of learning in a community or network context, about how RA tenets correspond to learning within their disciplines, and about how having knowledge related to a teaching and learning framework built around metacognitive conversation is useful in multiple contexts (and useful whether or not ever brought to fruition).

Finding #2: The members feel that the learning taking place in community and network settings has as much, if not greater, power as learning taking place in formal and time-programmed settings.

Capacity Building Defined through the Networked Community of Practice Model.

Of the seven participants, two, Angela and Rory, specified that the first time they encountered quality professional learning was through Reading Apprenticeship. Both felt great despair around teaching students how to really comprehend texts and apply the learning from the texts to classroom and real life contexts. For Rory, RA gave her hope that there were ways to make the enactment of this kind of reading visible to students, and so she continued to participate in intermitted RA trainings sponsored by WestEd's Strategic Literacy Initiative and to share her experiences in RA with Angela and others at her college. All the participants agreed the long history of RA imparted a sense of trust and confidence

in the framework. As an example, Rory talked about a specific classroom activity, the personal reading history (Schoenbach, Greenleaf, & Murphy, 2012, pp. 78-80), as being "a very simple activity that is really effective for people. If I came up with it, I would feel like it was too simple, you know what I mean?" This kind of well-researched sharing of classroom routines helped Rory and Angela, the only participants who had experienced some RA training outside the 3CSN context, acquire some useful new skills to utilize with students—skill acquisition Wenger, Trayner, & de Laat would classify as knowledge capital in the form of personal assets (p. 20).

But even Rory, the most experienced of the key informants, did not feel she had "the key to everything" until RA was nested within a community of practice through 3CSN's Reading Apprenticeship Project:

> I didn't even know about community of practice until I was working [with RAP]…I had a sense of what I wanted to do, in terms of kind of an extended apprenticeship…[but] I didn't have that language or that background. That was the community of practice, and that's how you describe that supportiveness but also the reiterative nature of it and the longevity of it.

All seven expressed value in the knowledge capital given to them simply through learning the RA Framework and its accompanying routines like the personal reading history, think alouds, talking to the text, etc.; however, they also stressed the importance of gaining this knowledge within the networked community. The RAP infrastructure, in their minds, guaranteed support over time and gave them focused, inquiry-based, and valued work to do together. This gave them access to those other kinds of capital as important as the personal assets gleaned through learning the routines themselves; these were assets

acquired through relationships and connections and through the resources developed and shared amongst the community (Wenger, Trayner, & de Laat, 2011, p. 20). According to Rory, the two, the RA Framework and RAP's networked community of practice infrastructure, existed in tandem; the framework provided a "tested" and "sturdy" base while the CoP moved the work forward with definition and consistency, giving every one a role to play.

The group described how the value of the time spent in the CoP most rested in the capacity building they were doing through knowledge exchange, feedback, and collaboration around solving the puzzles, i.e. problems of practice, associated with their integration of RA's four dimensions in their classrooms, in the ETS modules, and across their institutions. This meant that the group had the ability to share tangible information, documents, tools and procedures beginning in their smaller faculty inquiry group, and then moving out to the larger RAP, and then the extended 3CSN networks; there were multiple ways for the inter- and intra- distribution of knowledge capital. Liana spoke to this when describing how she could see a role for all of the different personality types in the group, how certain members of the group were often more gregarious but that her own quieter approach was also valued. She described how the knowledge exchanges happening between her and the other key informants were helping her transfer skills to other contexts, something described conceptually by Wenger, Trayner, & de Laat (2011) as acquiring learning capital. Catherine added that the knowledge acquired did not even have to be acted upon to be valuable; she stressed that even "if you don't every utilize that resource, just knowing that it's there can be a tremendous asset." And again this resonates with the concept that it is meaningful that the community has built up enough reputational

capital for the participants to believe in the possibilities surrounding the learning taking place in the group regardless of whether or not ever put to use (Wenger, Trayner, & de Laat, 2011).

The extended opportunities for shared knowledge provided not only by the immediate community but also by the extended network were cited more than any other reason as to how specific insights had been gained through RAP. An example of this was illustrated by the scholarships given to RAP members to attend an online RA course through WestEd's Strategic Literacy Initiative. This was a course for which Rory trained the facilitators to take a more communities of practice approach based on her experience with leading 3CSN's RAP. The majority of the study participants had taken the course, and Angela and Rory had facilitated it. During the course faculty not only learned RA routines but would have opportunities to share in detail what happened as they tried to apply these routines in class. Laura felt taking this online course gave her exponentially greater opportunities to gain insights about embedding RA because it connected her with so many others who shared examples of what they were doing: "So, for me, I was having that difficulty on how to do that, and when we did that online, it was like, this is what you need to do." And one of her online classmates went so far as to come in person to observe one of Laura's classes, "So having her there to give me feedback was even more powerful." Kendall explained that these extended opportunities to engage in the smaller circle of the ETS-related sub-group as well as through the larger RAP CoP and then through the entire 3CSN network was a guaranteed opportunity to connect with someone who's just "nailed" that problem of practice that's been an ongoing frustration.

Most specifically for these seven, a shared insight into the very nature of learning had been gained through their participation in RAP. Rory categorized it as cultivating a "tolerance for our own learning" – which also equated to developing a tolerance for and even a disposition towards risking failure and an increased capacity for problem solving. This tolerance had been built into the very network and community infrastructure of 3CSN's professional development model. In recounting their experiences with the CoP, these seven described a built in community of like-minded individuals who help each other problem-solve even horrible failures. Vivienne said this was what she remembered from the start of being involved in 3CSN. That's why when she brought an idea for creating a counseling faculty inquiry group to her dean a couple of years ago that "just sort of fell flat" it did not diminish her enthusiasm. What she held onto was "being inspired and excited about what we're doing as counselors and why, and what are some of the best practices," leading her to continue trying to integrate the RA framework into counseling activities. Angela tied the willingness to take risks with a resiliency and an opportunity for growth. For her, the way 3CSN values being transparent about both successes and failures resulted in more opportunities to transform and innovate. This was "so different from what happens on our campuses where the conflict becomes everything, and you just sit in that conflict in inertia, and nothing could ever move forward, you know?" For Angela, as for the others, the networked community of practice model helped sustain a supportive environment in which the potential for overcoming obstacles and conflicts always exists because there are so many kinds of assets, personal and social, tangible and intangible, held within the community and throughout the network.

Finding #3: The members perceive that they are better able to transfer what they are learning to other contexts, including discipline specific ones, and attribute this enhanced learning potential to Reading Apprenticeship Project.

Creating Environments to Support Discipline Specific Learning.

Each of the study participants described the ways in which they've connected what they've learned in RAP to greater insights into how learning works in their disciplines. For Laura, this involved moving from some skepticism about the worth of focusing on reading practice in her content-heavy psychology courses to a growing sense of "connection when we started talking about metacognition and schemas and that's the psychological aspect." She further explained, "In psychology, we learn about schema, schema-building, that sort of thing. It's reinforced that idea that we need to scaffold and that scaffolding is the key." In her view, concepts around schema are fundamental to the study of psychology, making the RA Framework's emphasis on knowledge-building through surfacing students' schema resonate powerfully. She added that the unpacking of the impact of different life experiences and circumstances was key to understanding the discipline itself. This led her to the idea that making time in her classes for teaching students how to read graphs, for example, would be essential to not just their understanding of a particular graph used in the write-up of an experiment but to scaffolding students' ability to gain the knowledge and skills necessary to genuinely learn the discipline. Similarly for Angela, the experience with RAP "gave her permission to go back to some of those best practices" she had learned as an English composition/literature major. Through Reading Apprenticeship, Angela felt she reconnected with those original concepts she had learned in school, that you should "spend most of your class on reading and writing" because of its importance to student

development: "You can teach all that grammar, but if they don't have anything to say or any fluency in reading and writing, then how are they going to implement it?" As with Laura's experience with RAP, Angela experienced what Wenger, Trayner, & de Laat characterize as a "transformed ability to learn," an ability to take what they were learning in the community and meaningfully apply it not just as a routine in the class but as a way to fundamentally approach the subject matter on an ongoing basis.

The transformed understanding of how to approach subject matter is very challenging for STEM instructors. Catherine and Liana noted that a lot of STEM instruction emphasizes the covering of content, particularly the teaching of processes for solving equations, conducting experiments, or creating formulas, and that they both felt RA helped because its strategies guide students to focus more on the conceptual ideas behind the processes. They noted that if more of their fellow faculty in the sciences could come to understand how the knowledge-building aspect of the RA Framework helps teachers understand how to uncover disciplinary "habits of mind" (Schoenbach, Greenleaf, & Murray, 2012, p. 40) then they would understand how implementing RA techniques would be timesavers in the classroom. Both of them described using strategies like think alouds so they can hear where students are struggling with concepts that they are reading. Liana also discussed using a variation of "talking to the text" which she calls "talking to the problem." In her adaptation of this routine, students are instructed to make notes on the problems, listing their questions, reactions, ideas, even drawing pictures. They agreed that it wasn't just that they acquired valuable resources connected to teaching students how to identify and explore the habits of mind specific to their disciplines, it was also that the social capital

they acquired through RAP helped them support one another in the face of departmental colleagues who did not believe there was room in the curriculum for RA.

The larger point materialized that the value of acquiring new perspectives for the practitioner was that it provided recognition of one's disciplinary expertise and built what Wenger, Trayner, & de Laat (2011) would term his "reputational capital" (p. 20). As understood by the study participants, the knowledge capital they were acquiring through RAP took on many forms and provided them with the learning necessary to not only address individual challenges but also increased possibilities that they could seed change more broadly and collectively.

Overcoming Expert Blind Spots and Growing Professionally and Personally.

Beyond insights gained about using RA in discipline-specific contexts, the participants reported greater knowledge about pedagogy and about themselves as teachers. Catherine, Laura, Vivienne, and Liana all spoke about the ways their experiences in RAP were leading them to rethink assumptions about how students learn and what more they could be doing as teachers to foster learning. A normed value recognized by the members of the CoP centered around moving from a place of blaming students for failing to learn to one of how can we help uncover how to learn in ways that our students can understand. As Angela described it, RA helped her figure out ways to create a safe space for students in the classroom by surfacing what she felt students carry around like "baggage"—those thoughts or ideas they are afraid of sharing "in case they're judged as being the wrong ones." This aligns with the RA Framework which details explicit routines for uncovering student confusion, for letting students know how important it is to the learning process to know what we don't know (Schoenback, Greenleaf, & Murray, 2012).

The group referred to teachers having "expert blind spots" that prevented them from really making visible to students how to read or think academically. But with RA, Rory pointed out, "something was being demystified that I had felt was off limits," namely very specific ideas backed by research regarding adult learning acquisition. And they all felt very committed to continually working with each other on not falling back into what they've always done in the classroom but instead to finding ways to integrate their knowledge into their practice on a regular basis. Furthermore, they expressed commitment to a collective identity as ongoing learners themselves, or as Kendall said, "I mean, I have my blind spots, too, so. I think one of the takeaways is that we're all on a learning curve here, just like our students."

There were also indications of the limitations of the knowledge-building experienced in RAP. As will be seen in the next section, Vivienne exhibited the least comfort with or enthusiasm for implementing the RA Framework. She expressed both during her individual interview and a group interview that she was not going to continue teaching. She did not necessarily feel that her students fully enacted the RA routines she assigned, and, while she agreed with the other key informants that students were erroneously assigned blame for failing to learn, she also talked about her class's "high school mentality" and their inability to take responsibility. At the same time, Vivienne pointed to gains her students had made through RA and remarked on the ways in which RA had helped grow her thinking and her practice.

Also addressing the limitations of her knowledge-building within RAP, Kendall felt she had not done enough apprenticeship within the CoP itself so had room to grow by not only doing more resource-exchange with other members but also by visiting their

classrooms and observing their RA implementation firsthand. During the final interview with the group, Kendall was impressed with the rubrics and other forms of assessments the other participants had used and took copies of them with her. Kendall definitely expressed gaps in knowledge, but she was not hesitant to suggest ways to fill them. In this sense, she exhibited another aspect of the learning capital group members, on a personal level, thought RA gave them as community college teachers. Rory explained this by talking about how community college instruction focused on more broad teaching tasks, meaning that most would never really teach what they specialized in for their graduate degrees. "I specialize in Toni Morrison—I'm never going to teach a Toni Morrison course," she said, "So I can get really far away from that passion and end up feeling like it's just drudgery." But, the ways in which RAP helped teachers learn how to apprentice students to do very high level intellectual work was transformative for "it returns us to the discipline that we fell in love with" as Rory phrased it. Certainly, Liana, Laura, Angela, Catherine, and even Vivienne also talked about this kind of passion at some point during the interviews and related it to something valuable they had gained through working with each other. This points to some indications that the study participants had experienced what Wenger, Trayner, & de Laat (2011) term a reawakening of one's "sense of calling and professional identity" (p. 20) as part of building their collective knowledge capital in the CoP.

Section Three: Perceived Changes in Practice

- In what ways, if at all, are participants implementing the Reading Apprenticeship framework? (Value Creation Cycles 1 & 3)
- To what extent, if any, has 3CSN's RAP transformed participants' instructional practice? (Value Creation Cycles 3 & 4)

The utilization of knowledge capital to make concrete changes in practice and apply them in a specific context is categorized in cycle three by Wenger, Trayner, & de Laat's (2011) as "applied value;" these changes may include revising lesson plans or materials, exploiting synergy between departments or disciplines, and changing a procedure or policy (p. 20). The study participants reported specific application of RA in classroom, staff development, and organizational settings. These changes in practice or applied value described by the seven relate most specifically to routines and concepts associated with the "Cognitive Dimension" in the RA Framework; the cognitive dimension focuses on teaching and modeling strategies in order to build a repertoire of "mental tools" that will aid in puzzling through texts, making visible reading and critical thinking processes, and achieving increased comprehension (Schoenbach, Greenleaf, & Murphy, 2012, p. 33). While the routines themselves parallel the building of the cognitive dimension of the Framework, the ways in which the routines are utilized within the context of instruction should take into account the other dimensions as well. For example, the routine of explicitly teaching students how to enact student-to-student academic conversations does help students make their critical thinking processes visible to one another, i.e. builds cognition, but the strategy also helps cultivate the social, relationship-building dimension of the Framework as well (Schoenbach, Greenleaf, & Murphy, 2012, p. 63). In addition to the reporting of changes in instructional and organizational practice during individual and group interviews, study participants were observed enacting RA strategies during class visits and professional development activities. In the context of the Wenger, Trayner, & de Laat (2011) framework, all of the RA strategies implemented by the key informants are indicators of changes in practice; however, the extent to which the strategies appear to reflect concepts inherent in

the RA Framework will also be taken into consideration when discussing applied value in this section of the chapter.

Overview of strategies implemented.[4]

Through reporting in interviews, direct observation, or by sharing of student documents, all seven of the CoP members demonstrated that they have implemented Evidence Interpretation Logs (sometimes referred to as Double Entry Journals or DEJs), Think, (Write), Pair, Share, and Talking to the Text. Six of the seven also used Think Alouds, Jigsaw, and Gallery Walks. Five of the seven gave evidence of using Reading Response Journals, a protocol based on RA that Rory and Angela developed. Four of the seven demonstrated using Curriculum Embedded Reading Assessments (CERAs). Two of the seven referenced using Class Norms while one more shared a picture of a recent list from her class's norming activity; a similar number referenced and showed documentation of utilizing the Reading Strategies List on an ongoing basis. Two discussed assigning the Personal Reading History. Three described using Golden Lines. Singular references were made to using the RA strategies of Metacognitive Bookmark, Activating the Schema, and Final Word. One strategy mentioned by Kendall, the Muddiest Point, is not named as such in the Reading for Understanding book, and it is unclear whether this strategy is specific to RA in general or more specific to the CoP.

The majority utilized one or more of the RA strategies on a daily basis although not in every course. In Laura's case, she had a new prep for her Social Psychology course so designed it from the ground up to incorporate daily usage of RA; her other introductory courses had weekly utilization of RA strategies. Kendall talked about not having recently

[4] See Appendix _ for a glossary describing each of the RA strategies mentioned in this chapter.

taught classes prior to being trained in RA, so she said she designed her curriculum with daily RA routines built in. Rory, Angela, and Liana described using RA every class period as well as in nearly every meeting or training they facilitated. Both Catherine and Vivienne reported extensive use of RA in the college success courses they teach, defining this as minimally once a week. For her math courses, Catherine used RA strategies every two weeks. Vivienne mentioned that she had not used RA approaches in individual counseling sessions but was considering it.

Finding #4: The study participants consistently implement RA routines although not always from the conceptual standpoint of integrating the RA Framework; regardless, they believe RA has transformed their instructional practice.

Implementation of RA in the Classroom.

Routine Embracing of the Routines.

Two of the study participants reported using RA routines or activities on a regular basis in their courses, yet somehow seemed more formulaic and less surefooted than others in their descriptions of integrating the framework. For example, Catherine described many of the RA techniques as ones that had been built into the curriculum with fellow colleagues, both as part of a new quantitative literacy course designed by her with other math faculty as well as with the College Success Course. Catherine had a clear grasp of how RA helped in teaching text-heavy math such as that found in word problems, but she did not demonstrate the kind of internalization of the RA Framework that would lead her to apply RA to math instruction involving other kinds of texts such as graphs, charts, and even equations themselves. As will be seen later in the section, this more literal translation of RA's utility is in contrast to Liana, the other study participant from the hard sciences.

Catherine displayed a definite emphasis on a planned out and collaborative RA approach with her fellow math faculty; together, they created lesson plans for their quantitative literacy class that included an emphasis on metacognitive conversation. They had students watch videos about metacognition and then would "have a discussion about what they thought metacognition was, how they could use it in a math class, and how it relates to them." It was clear that she was committed to not only using RA routines in her own instructional practice because she felt they made a valuable difference, but she was also determined that more colleagues benefit as well, becoming one of the leading proponents in her department and across campus of RA.

In observing Catherine teaching the think aloud in one of the quantitative literacy classes, she described to students the reason for doing a think aloud in terms of it being a way that would help them monitor their learning by slowing it down—certainly an explanation aligned with the cognitive dimension of the RA Framework. Nonetheless, even though Catherine modeled think aloud and provided encouraging iterations of the technique along the way, the students struggled to embrace the task and largely read verbatim from their books versus genuinely describing what was going on in their heads. It should be noted this class took place very early in the semester; therefore, it could not be observed whether or not the students became more proficient with the routine over time, and in the follow-up group interview the key informants singled out think aloud as a routine that takes students time to learn. But certainly in the context of the class observed, the routine did not seem to help students understand their reading in a markedly visible way. And the routine did not appear to help students build new knowledge on their own. And while some of the students engaged in the activity, at least a third of the class did not.

Using RA to Immediately Engage Students and Develop Their Disciplinary Habits of Mind.

Other key informants, such as Laura and Liana, described integrating RA on multiple levels, including jumping right in the first day and using routines in order to build class cohesion, collaboration, and camaraderie (addressing the social dimension) as well as to build on prior knowledge students bring with them from the start (addressing the cognitive dimension). This was observed first hand through a visit to Laura's Social Psychology class during its first class meeting. The students were broken into groups and given different excerpts from the first chapter of their textbook; these excerpts covered all the main tenets of Social Psychology they would be learning in the class. The groups summarized the concepts in their own words on a poster and then walked around viewing all the other posters and writing comments, reactions, questions, on post-it notes that they stuck to the other posters. During a class debrief facilitated by Laura, the students were able to describe concepts that they were learning and also demonstrated ways to apply these concepts to routine social interactions. Not only was social engagement in evidence and strong activation of schema in order to increase thinking about the material, but there was also a strong knowledge-building component as during the debrief activity, it was evident from several student comments that they had gained understanding of many of the tenets of social psychology they had encountered during the gallery walk.

Liana's descriptions of integrating RA in her practice were even more closely linked to her discipline. She talked about how it made sense that the RA Framework's emphasis on developing students' social dimensions is equally crucial for scientific work because in science practitioners always work in teams. Unlike Catherine who described using RA with

students to read expository portions of the textbook or for word problems, Liana described using RA the most with students to help them read equations and scientific charts and graphs. She talked about having a set time during every class session where she would talk to the text or do a think aloud for equations on the board; during lectures, she routinely stops and gives them a problem to pair share and "think aloud to each other." She explained how she continued this approach outside the classroom as well by demonstrating on Facebook how to talk to the problem and not giving them the answers to the problems. She said that students look at her model of talking to the problem and then can "actually" go on to solve it themselves.

Laura and Liana both detailed intricate scaffolding of RA to help students more readily access the kinds of thinking they would need to learn the content of the course. They described using different approaches or more or less of certain routines based on the level of the classes they taught. Liana found she had to use Activating the Schema much more often in her astronomy class because students' prior knowledge and awareness of the topic needed to be sorted through. Laura found that she could assign peer reviewed journal articles in her introductory courses for the first time because RA had ensured students had a stronger cognitive base from which to engage texts. Both reported relying less on lecture yet feeling more confident that content would be covered because the students understood the concepts better and contributed more effectively to class discussions. Moreover, in being able to actually hear where everyone got stuck through activities like Think Aloud and Think, Pair, Share as well as through their Evidence Interpretation logs, they could understand when they might have to slow down or bring in additional material or otherwise revise lessons or readings during the course of the semester.

Reading Apprenticeship Not for the Faint of Heart.

Because she is the full-time Reading Apprenticeship Project Coordinator, Rory not only had the most experience teaching the RA Framework but she also had the most to say conceptually about the significance of its implementation. In the beginning she felt she could not get students to seriously perform RA because they felt it was "baby stuff" they didn't need. She said she began to compare the metacognitive routines to the debriefing surgeons do in order to really understand their practice, telling students that they would be doing challenging, highly intellectual work that they would not immediately be proficient at, but that they would do it together. This analogy to the work of surgeons was returned to again and again during her group and individual interview as well as during an observation of a professional learning session. Its emphasis was linked to what she had concluded was the most important value arising from the integration of RA: she believes RA helps practitioners address the persistent equity gap in community college classrooms. She asserted that the extensive reading accompanied by metacognitive conversation, which RA conceptualized as foundational to their Framework, ensured that community college students, most of whom had not had privileged educational experiences, gained significant opportunities to flex their reading muscles for the first time. But she did note that it was a constant balancing act trying to move students towards this intellectual independence; it involved figuring out how not to throw them in the deep end to drown while at the same time making sure they got to tread enough water to tire, "get disgusted, and then have the moment of triumph when they have learned something, when they have done something." To her this extensive critical reading, a transformative instructional practice made possible

through RA, significantly built intellectual muscle, and was the key to increasing academic success.

Besides using it as a strong framework to teach the intellectual work of critical reading and thinking, Rory said she used RA to actually get students *to read*. This was also a concept emphasized by the other study participants. Not only did she say that RA has helped her understand that people are highly distracted while reading, she also said that her incorporation of RA into her practice has helped her know how to address the fact that students come to her classes without having had the experience of genuinely reading with comprehension. Even though she had been teaching English for years at both the community college and university level, Rory said before RA she had not known how to help students increase their cognitive skills enough to authentically read and bring ideas to the table for discussion.

The Framework Fully Realized.

Angela was also a study participant who felt that RA implementation had allowed her to truly increase students' cognitive capacities. In terms of describing transformations to her practice that this difference in her students' performance, Angela not only gave the most detailed descriptions RA integration but also was observed helming a class session demonstrating this integration in the most fully realized way. She believed RA helped avoid a big pitfall in education, that of relegating when students really have to think to homework assignments, thus making it virtually impossible to help students when it matters the most. Therefore, the most significant innovation RA brought to her practice was the shift to doing a lot of reading together with students during class time. Angela most valued this transformative shift as she felt it really allowed her to develop into a much more present,

focused, and less controlling presence in the classroom thereby creating space for the students themselves to practice and internalize cognitive routines.

Angela's understanding of the social and personal dimensions of the RA Framework pre-dated her exposure to RA: "I designed a little classroom 15 years ago for my ESL class that has five round tables, so my students have these little mini-communities in the class." But the integration of RA into ESL enabled her to change her practice in fundamental ways. An important change came about for her with the use of Evidence Interpretation Logs (or what she terms double-entry journals or DEJs) which helped her realize she could more effectively teach students by assigning primary texts and eliminate the dry, uninvolving textbook typically required. She could do this because the DEJs and Talking to the Text scaffolded the learning, helping students break down the reading, locate places where vocabulary or grammar were interfering with comprehension, and tackle other reading challenges more effectively. Plus, in her estimation, the reading became more interesting and engaging for the students. She assigned Personal Reading Histories during week one and had them write them out in their own language as well as in English to boost their confidence by helping them see how the strategies they have as fluent readers in their home language could be applied to tackle their second language reading challenges. A strengths-based approach was also integrated through creating an ongoing Reading Strategies List which they also kept in both languages: "So, even if they're not necessarily applying the strategies in English, they have them in their native language and a lot of it is just flipping the light bulb switch so they realize they do it." Besides speaking powerfully to building the personal dimension of the RA Framework, this type of leveraging of synergies

is one of the prominent indicators cited in cycle three of Wenger, Trayner, & de Laat (2011).

Angela also stressed that RA worked for her because it emphasized the use of rubrics to help both teachers and students norm their metacognitive practice. Rubrics were also important to the majority of the other key informants, but Angela had the idea to load them on the course management system making it easier for students to know how to improve their reading responses as well as allowing for easier and less time-consuming feedback and grade giving. Attesting to the success of her change in practice, her online rubric system was adopted by the other AHC study participants. Angela concluded that the front-loading and regular use of metacognitive routines were essential to increasing her students' reading fluency. "I know that if they're fluent readers, that's going to improve all of their skills, right? They'll get the vocabulary, they'll get their writing fluency." Plus, she believed these routines were regularized to the extent that they formed the basis for the day-to-day running of the class. She asserted that her students automatically knew when to share and discuss DEJs or Reading Response Journals (RRJs) and that she was thus able to embrace more fully a helpful facilitator role and move through the groups, listening for key themes and interesting topics and then using this rich, student-generated material for more meaningful and relevant whole group discussion.

Indeed, Angela's description from her interview of a classroom in which there was an extensive integration of RA was confirmed during a subsequent observation. The students moved seamlessly through several RA routines including Think Aloud, Talking to the Text, Golden Lines, and keeping a strategy list. Angela moved amongst the round tables where the students were clustered within their mini-communities; she listened, recorded

parking lot items for further discussion, asked, and answered questions. The students read directly from their journals versus paraphrasing what they had written. They prompted one another to share where they had problems with English vocabulary or grammar. The list on the board prompted just in time review of English rules around intransitive verbs and prepositions. During a small group activity with the DEJs, every student was observed taking a turn reading the passages or "golden lines" they had selected and then reading their accompanying responses or interpretations of the passages. Students pointed back to each other's chosen golden lines or to related passages and asked further questions, challenged each other's interpretations, and added new interpretations or made predictions about the next chapter. In short, the integration and internalization of the RA Framework was apparent throughout the class period. The social and personal dimensions were evident through the self-regulated time on task spent by the groups, and the knowledge-building and cognitive aspects of the Framework were illustrated by the ways in which they grappled specifically with the texts.

Implementation of RA in Professional Development and Other Organizational Contexts

All seven of the study participants have led professional development activities that incorporate elements of RA at their own colleges and at other colleges (with sponsorship from 3CSN's Reading Apprenticeship Project). Rory has additionally led RA-informed workshops for faculty in other states and at national conferences with the support of both 3CSN and WestEd's Strategic Literacy Initiative. Both Laura and Angela credited their participation in the Leadership Community of Practice (LCoP), the facilitator training 3CSN sponsored them to attend, with providing an empowering space for them to practice

facilitating RA and to more fully understand the very nature of the Framework. As Angela put it, "You apprentice," with Laura agreeing, "Yeah, absolutely. There's apprenticeship on every level." Rory was instrumental in designing the LCoP to provide differentiating support to aspiring RA facilitators so that those who were almost immediately ready to facilitate on their own would be supported while others who needed more time, like she said she had, would also benefit. The experience of facilitation led study participants to acquire new expertise and to make further changes in their classroom practice as well as to leverage their expertise in other organizational contexts—all strong indicators of applied value.

Experience in Facilitation Leading to Cultural Change.

At the campus level, Catherine and Angela had examples of incorporating RA strategies during departmental meetings and other college activities. As the leader of a large working group charged with development curriculum for two new math courses, Catherine infused a significant portion of their weekly meetings with RA approaches. Angela designed a new instructors seminar around RA to facilitate bonding in the cohort and focus the professional learning on cognitively apprenticing students in discipline specific ways. For example, she partnered the instructors with someone from another discipline who would look at their textbooks as "an outsider who is still a very educated and competent reader." She described an English teacher not knowing what something meant in a Photography textbook and how eye-opening and humbling that experience was for him: "He's read Proust and he can't understand that paragraph." Both Angela and Catherine felt all of this exposure to RA on their campus was helping cultivate greater

empathy for students' struggles with academic literacy and greater understanding of how to better meet students' needs through just-in-time support.

During an observed session of a faculty workshop, Liana's facilitation demonstrated how RA surfaces disciplinary schema useful to helping students learn. Liana told the faculty that because she is a scientist she often could just look at a chart or graph or a formula and immediately ascertain the main emphases on a page without actually reading it. After Liana demonstrated how to Talk to the Text and then guided the workshop participants through an activity where they applied the routine, a physical sciences teacher raised her hand and asserted that this routine had helped her genuinely understand that we "all read so differently." The faculty member added that she had somehow never really noticed or registered this difference until practicing this metacognitive routine with individuals from other disciplines. As these and other examples shared by the group showed, it was clear that, very much in keeping with the personal dimension of the RA Framework as well as the applied value of leveraging knowledge capital described in Wenger, Trayner, & de Laat (2011), the study participants derived a renewed sense of their own confidence and range through the learning they were able to instill in colleagues.

The study participants found other ways to use RA to support practice outside the classroom. Three of the seven embedded RA in the tutor training they facilitate. Vivienne reported using RA strategies during a college planning retreat. She found that this allowed faculty and staff participants to dig "deeper into the meaning and discussing" of the retreat reading materials. Plus, she said, "It also made them read it." Catherine spoke to the fact that she had plans first thing in the next semester to use norming as a way to help the curriculum committee, which she chairs, develop more personal and social bonds and

thereby "help change the culture" of the group. Kendall reported actively using RA in the student success shared governance committee she chairs to tackle debriefing reports as well as to investigate more thoroughly significant issues related to pedagogy and student success. She described frequent feedback from committee members claiming that "it is the most productive, positive, interesting meeting that they go to on campus" because the routines help the group participate more interactively.

The key informants' experiences with facilitating RA could not be detached from their personal sense of obligation to pay forward the rewards they felt RA had given to their classroom practice. Their enlistment of others in pursuing the further implementation of RA across classrooms and other institutional spaces is another indicator of changed practice/applied value as described in cycle three of Wenger, Trayner, & de Laat (2011).

Section Four: Perceived Changes in Performance

- To what extent, if any, has 3CSN's RAP transformed participants' instructional practice? (Value Creation Cycles 3 & 4)
- In what ways, if at all, do participants perceive that their implementation of the RA framework helps to increase student engagement in their classrooms? Helps to increase student achievement? (Value Creation Cycle 4)

In cycle four of their conceptual framework, *Promoting and Assessing Value Creation in Communities and Networks*, Wenger, Trayner, & de Laat (2011) outline indicators of performance improvement, terming these evidence of "realized value;" these indicators center on perceived changes in performance related to a participant's personal or professional growth (p. 30). Reading Apprenticeship's framework and accompanying routines are designed to effect the improved ability of disciplinary faculty to equitably

teach students "to approach challenging academic texts more strategically, confidently, and successfully" (Schoenbach, Greenleaf, & Murphy, 2012, p. 3); the resulting improvements in student academic literacy can correspondingly lead to higher student engagement[5], motivation, and performance (as argued by Schoenbach, Greenleaf, & Murphy, 2012, p. 14).

In looking for evidence of realized value, certain questions provide guidance, such as, *What aspects of the participant's or student performance has the participation in community/network affected?*, *Was time saved or something new achieved?*, or *Did any of this affect some metrics that are used to evaluate student performance?* (adapted from Wenger, Trayner, & de Laat, 2011, p. 23) However, Wenger, Trayner, and de Laat (2011) caution that the incorporation of strategies and concepts gained through participation in a CoP or network setting does not guarantee increased performance. They argue instead for a much more complex understanding of the impact of changes in practice, one that isn't solely focused on performance but one that also examines the "effects the application of knowledge capital is having on the achievement of what matters to stakeholders, including members who apply a new practice" (Wenger, Trayner, & de Laat, p. 21). In examining the difference RA has reportedly made in terms of the study participants' abilities to achieve value as perceived by both themselves and relevant stakeholders, this section of the chapter will examine evidence cast in both qualitative and quantitative terms by the CoP.

Finding #5: The study participants perceived increases in student participation and engagement as well as increases in student achievement as a result of implementing RA.

[5] Schoenbach, Greenleaf, & Murphy (2012) define engagement as "active mental involvement in reading and learning" (p. 100).

Cultivating a More Active and Challenging Classroom through Reading Apprenticeship.

All seven ascribed upticks in student participation in class conversations and activities to Reading Apprenticeship. They believed that through Talking to the Text and Think Alouds, two routines that require students to point to specific parts of the text and to talk through reactions, ideas, questions, and associations in response to these passages, the students became much more thoroughly knowledgeable about the reading, spurring them to feel better equipped to contribute more to class discussions as well as to group activities. This links well with the RA Framework's emphasis on building on the strengths of students, on being able to increase motivation in the classroom because the students feel that their intelligence is being honored, that what they have to say matters to the learning taking place in the classroom (Schoenbach, Greenleaf, & Murphy, 2012).

Other routines contributed to differences in both the quantity and quality of student participation according to members in the CoP. For example, Angela reported that daily sharing of DEJs or RRJs in assigned groups of five resulted in increased speaking up on the part of all students, most strikingly in male students who she had struggled to get to complete readings in the past. According to Angela, daily RA routines shifted the classroom dynamic as "the accountability isn't to me or themselves; the accountability becomes to the group," resulting in "almost perfect" attendance. Equally dramatic to Catherine was the fact that by using Think Alouds during a lesson on Mayan numerals she actually saved time in class, a valued result she talked about during both an individual and group interview: "within ten minutes of them doing the action, they were lecturing to me as I was writing on the board what they were telling me they had learned and then we were having a dialogue."

This lesson went from an hour and a half lecture to thirty minutes of interactive learning through RA. Moreover, she reported that the students all successfully completed the homework related to the lesson, giving her students a greater sense of efficacy and ownership over the material so that as they moved to related topics she could more easily activate their schema or prior knowledge of Mayan numerals to understand new material (Schoenbach, Greenleaf, & Murphy, 2012). For the key informants, there was inherent value in the kind of engagement that the RA routines elicited from the students, enough value that regardless of performance improvement on a test or individual assignment, the increased engagement in class work and homework assignments as well as improved attendance were material evidence of Wenger, Trayner, & de Laat's (2011) "realized value" (p. 21). This is the kind of value that indicates achieving something meaningful to community stakeholders, and the key informants certainly valued the increased sense of fun, increased willingness to talk, and increased accountability towards each other they saw happening in students as a result of using RA in the classroom.

As perceived by the study participants, increased student engagement through RA also went hand in hand with increased student understanding of reading as well as increased student ownership over their own learning process. As reported by the CoP members, these increases were somewhat tempered but not overcome by resistance on the part of both the students and practitioners. To begin, the group understood how different their classes were from others. They knew they were asking students to do more reading and writing than most had ever encountered before. But for all of them, this push-pull resulted in the end with students reporting they had learned more than they expected or thought they could, again a perceived performance gain universally valued by the group.

The seven illustrated their observations about increased student learning through changes in the quality of the reading logs they assigned during the term. They noted students struggle at the beginning to describe their reading process in the RRJs or in distinguishing evidence from interpretation in the DEJs. And they all pointed to a pattern of higher levels of self-regulating learning behaviors corresponding to increased comprehension of course material by students. Angela shared an example of an entry by a student who she characterized as "one of my lower students;" she found that while his comments typically trended towards mere summarization, by the end of the term he was able to point to places in the text where he had questions he wanted to explore further as well as places where he made connections between passages and was drawing tentative conclusions. "It's like yeah, he's not passing, but he's starting to gauge with a book, to read a book, and that is going to eventually change how he reads and writes." Laura believed her students developed greater fluency in reading by actually scoring the DEJs she assigned according to an analytic guide based on a rubric developed by Strategic Literacy Initiative, WestED (Appendix D). While she noted how interesting it was to her that the students tended to score each other lower than she ever would, the result was that she thought her students increasingly regulated their own learning through this activity. Liana also believed that students who routinely completed metacognitive reading logs in her physics courses had greater comprehension and mastery of the material (as will be noted later in the chapter, she even plotted a linear correlation between the number of completed reading logs and the final grades in the class).

Some exhibited some reservations about the reading logs' efficacy. Catherine and Vivienne both talked about a "high school mentality" that sometimes led students to just

complete the logs without real depth or with made up reactions. They also both talked about certain segments of the class never quite being able to capture their reading process. But they also each presented evidence that their students benefited in some fashion from the routine. In sharing the early in the semester and late in the semester examples of RRJs from someone she classified as her best student, Vivienne noted how he consistently articulated his reading process and its connection to his understanding of the text more capably than she could. She compared this to an international student in her College Success Course who started at a much lower level and by the end of the semester was doubling and tripling what he had to say; even if she thought he still wasn't addressing all of the assignment, it was nevertheless characterized by her as a performance gain achieved through the RA routines. Catherine concluded that even if her College Success students sometimes resisted, the fact that the reading logs made them "cognizant" that such a thing as a reading process even exists was "a huge step in their metacognitive ability." Again, this reflects the idea that the improvements stakeholders want realized are often those that might not necessarily be reflected in a standard performance metric but were nonetheless important in principle (Wenger, Trayner, & de Laat, 2011, p. 21).

Increasing Metacognition and Improving Learner Flexibility.

Several of the student comments in the reading logs shared by the study participants also spoke to the impact of the metacognitive logs on students' thinking about reading and learning. For example, one student said, "I hated these RRJs when you first assigned them. The first one took me four hours to complete and now I'm going to miss them when this class ends because I love to talk about what I think." Another student noted how by the end of the semester she was able to fully understand all the chapters she was

assigned. She added that she never thought her reading would improve so much: "I'm pretty sure it all goes back to this 'reading process.'"

Kendall admitted that any evidence she had for RA's impact on student learning was "largely anecdotal," but she always made sure that her students were taught the strategies in much the same way as she had learned them in training; this was not something taught by the others as they felt the RA terminology might distract students. "The reason I do that is that I try and get the students to facilitate them, towards the end of the semester," she said. Even though I had observed a class session of Kendall's early in the semester, she reported that the next week a student had already volunteered and led the class through one of the RA routines, providing evidence that demonstrates the internalization of student self-regulating behavior she most prizes in her teaching.

Angela was the sole participant who overtly ascribed aspects of student progress to the RA Framework itself rather than just the routines. Because she had spent so much time at the beginning cultivating the RA Framework's social and personal dimensions in her class, including organizing the room itself as a collaborative space, she felt that her ESL students had more quickly become comfortable with "unveiling their confusion" and by week five were already able to "have a text-based discussion and have an interpretation of it rather than just restating it." This does not mean there wasn't evidence of other ways in which the dimensions of the RA framework influenced the participants' views about student learning. Another approach all seven had in common was to assign students Think Alouds or Talking to the Text activities for texts or videos related to theories about growth

vs. fixed mindset (Dweck, 2006; Dweck, 2008.)[6]. The participants spent time both in their individual and group interviews discussing the concept of teaching growth mindset as a shared goal. While not specific to RA per se, the knowledge-building that the CoP had cultivated around the theory of growth mindset as well as the social and personal dimensions of giving shared assignments such as a jigsaw activity for a short mindset article by Dweck (2008) called "Brainology: Transforming Students' Motivation to Learn" (an activity originally performed at a 3CSN workshop) indicated that their CoP had internalized aspects of the RA Framework with one another. Catherine added that she had shared knowledge she had gleaned from the CoP about growth mindset with others in her department and that they too were having success incorporating the concept. "Their students have come back to them, semesters later, and said, 'I remember that mindset article and it's really helped me get through'" classes other than math. For the study participants, the growth mindset activities they had grown together provided another way to help students self-actualize as independent learners, a realized value of great significance to them as a group.

At a broader level, the study participants expressed ways in which they saw RA helping students in other learning contexts, such as acquiring greater writing fluency. At the time of her individual interview, Catherine had just completed grading her finals and said that for the first time not a single student left a word problem blank—even the ones failing the class had tried. Liana, Angela, and Rory also pointed to the importance of challenging students with difficult texts—a principle universally championed by RA. The four AHC study participants added that their College Success course had improved student

[6] Growth mindset refers to the belief that intelligence can be developed; it stands in contrast to "fixed mindset," which posits that intelligence is static.

persistence; “our numbers in terms of students who stick with the first year of college and go to the second year are pretty astonishingly great,” said Rory. They attributed this persistence to the extensive use of RA to help students acquire the critical reading and thinking skills necessary to move forward in other classes—with the two required and challenging books at the center of the shared College Success curriculum instrumental to students’ success. In short, in multiple ways and in multiple contexts, the study participants were convinced that their implementation of RA increased student engagement in their classrooms; they also each attributed some level of increased student achievement to their incorporation of RA.

Measuring RA-related Increases in Student Achievement.

The seven study participants reported assigning points or other types of grades to student assignments based on RA strategies, as well as having the students collect their assignments in an electronic portfolio. Certainly these points provided incentives for students to actually perform the routines, but the participants also reported the benefits of routinely reviewing the students’ RA-based work. For example, Liana regularly illustrated for students in their class Facebook group how to perform RA routines in a science context, including Talking to the Problem for her physics course; students who performed this routine on tests were given partial credit points. Liana said the motivation for developing her own discipline-specific RA protocol for students was her interest in the potential of the Talking to the Problem routine to add to her own understanding of how learning happens—a realized value indicator classified in Wenger, Trayner, & de Laat (2011) as “knowledge products as performance” (p. 30). For some it was important to have completed mini-studies of student impact as a check in for the students themselves, to help

them begin to monitor their own learning; this is what Wenger, Trayner, & de Laat (2011) would classify as checking for personal performance indicators of realized value. For example, the AHC study participants utilized rubrics developed for RRJs (by Angela and Catherine) and DEJs (by Angela) to provide ongoing feedback to students and to help students monitor each other's learning (Appendix D).

Six of the seven had moved beyond assigning points to students for performing RA routines to trying to sort out performance gains achieved as a result of the integration of the strategies; they were looking for indications of what Wenger, Trayner, & de Laat (2011) would classify as organizational performance and/or organizational reputation improvements—i.e. realized value that would demonstrate the worth of the intervention more globally and would potentially attract others to the domain. Liana used data from her students' assignments to perform a correlational study assessing the impact of RA on student performance in one of her physics classes. And while she also attributed the motivation for this small study to her interest in looking, as a scientist, at the learning happening in her class, she also was aware of the potential value in reporting her results to the larger RAP group for use in evaluating the impact of the CoP. Laura performed a comparative descriptive study examining the sustained improvement rates of students who failed the first exam in two different sections of her introductory psychology classes; in one section, the students utilized RA and in the other they did not. She wanted to be able to show results to her department. Vivienne, Rory, Angela, and Catherine, the CoP participants from AHC, administered a pre- and post- formative assessment to their College Success students utilizing Reading Apprenticeship's CERA (Curriculum-Embedded Reading Assessment) tool (See Glossary entry in Appendix C) and an analytic guide to assessing

college-level reading development (Appendix D) to score the results. After consulting with their IR office, the AHC key informants performed a quasi-experimental study assessing the impact on student performance and reported it to their campus. Kendall was the only study participant who didn't have quantitative results to share from her RA-infused classes.

The Results from the Key Informants' Self-Directed RA Studies.

Liana produced the scatterplot graph shown in Figure 1 and described her data as demonstrating how students who routinely completed reading assignments had achieved greater course outcomes. As these were RA Evidence-Interpretation (DEJ) assignments, Liana more specifically attributed greater practice in metacognition to the greater proficiency in physics.

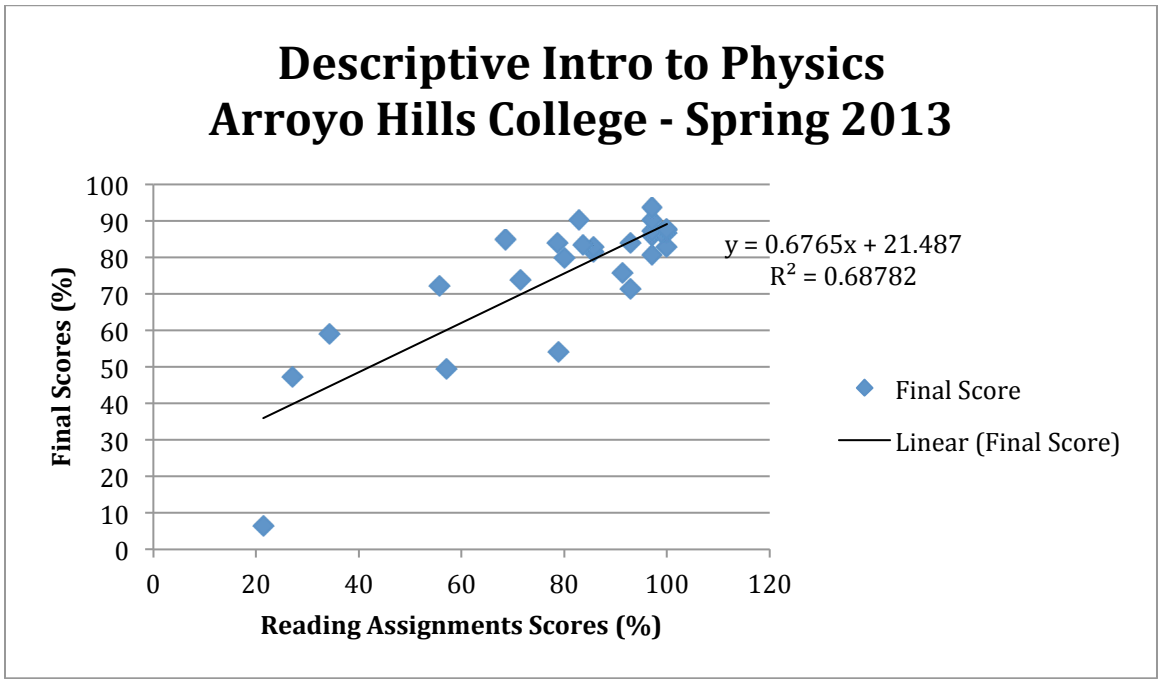


Figure 1. Liana's scatterplot graph. This figure depicts the linear correlation between the number of reading assignments completed and the final grade the student received in the class.

In Liana's small study, she looked at student achievement in an introductory physics course she taught at AHC in the spring semester of 2013. In this course, she said she began

with 32 students in the section and ended with 29. In an aside, she talked about how she had been urged to take all the students on the waiting list due to the course's historically high attrition rate and additionally claimed that her incorporation of RA contributed to the 95% retention rate for this and subsequent physics classes taught at AHC. Specifically, the graph x-axis in Figure 1 depicts the percentage completed of Evidence and Interpretation logs assigned to students over the term, and the y-axis shows the final grade given to the student, in percentages, at the end of the semester. Liana noted that she had no set rubric to grade the reading logs but basically rated them as complete/not complete.

While Liana attributed her desire to collect data about the use of RA in her courses to her own to her natural curiosity as a scientist, Laura's impulse to do her own research came from wanting to get more of her fellow faculty on board with RA. She had decided they wouldn't even try it "without any kind of solid evidence of some sort, so I wanted to look at the numbers." Initially, she said she found that the success rates for her students in courses where she used RA vs. in courses where she had not did improve but not universally. According to her description of a comparative study she performed, what emerged upon deeper analysis was that a statistically significant and sustained increase in student achievement over the course of the semester occurred for those students who had failed the first exam and were in a class that used RA strategies. She compared two different sets of two classes held in the spring of 2013:

> My Monday/Wednesday class, they had a 55% sustained and my Reading Apprenticeship had a 66% sustained. The Monday/Wednesday, here was the RA, and it was 44% sustained, with 28% sustained, non-RA.

By sustained, Laura meant that the students continuously improved from exam one, which they had failed, to the final exam. In her view, this uptick in performance for students who had been failing had greater significance than just a general upswing; she felt that if RA could help the students who struggle the most it held even greater promise as an intervention. She said her small RA study gave her increased inspiration to try harder to disseminate its strategies, including lobbying to be given reassigned time at her college to conduct RA faculty trainings.

The four AHC study participants who all taught the College Success course worked together to conduct a pre- and post- quasi-experimental study of students in their own and in the College Success classes of a couple of other people they believed "really use RA." They used RA's CERA instrument for the pre- and post- as well as an analytic rubric (Appendix D) to score the samples. The mini-study was conducted in spring of 2013. For both the pre- and post- CERAs, as Rory explained, the students were given a "segment of an article" and told to "read it how they normally would, to mark it off or whatever, and to answer some questions." For the pre-test analysis, 57 CERAs were randomly selected from the sections of the participating faculty. For the post-test analysis, n=48, signifying the number of students from the pre-CERA 57 who were present to take the post-CERAs. The results are depicted in Tables 2 and 3 below.

Table 2. *Pre-test CERA Results Spring 2013*

1. Course Embedded Reading Assessment

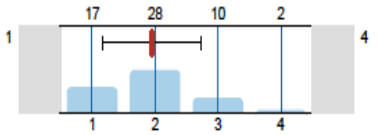
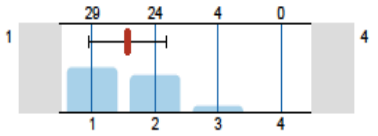
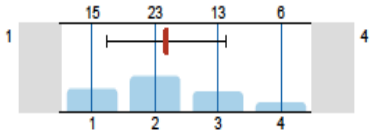
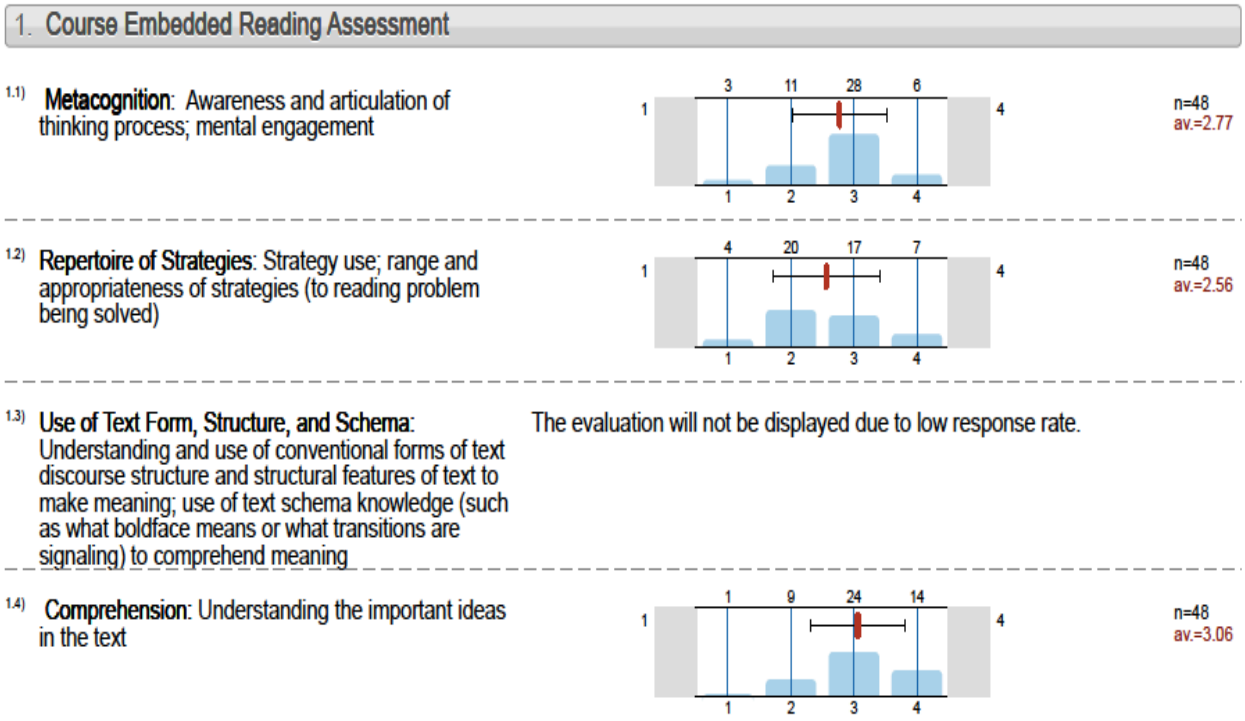
1.1) **Metacognition**: Awareness and articulation of thinking process; mental engagement		n=57 av.=1.95
1.2) **Repertoire of Strategies**: Strategy use; range and appropriateness of strategies (to reading problem being solved)		n=57 av.=1.56
1.3) **Use of Text Form, Structure, and Schema**: Understanding and use of conventional forms of text discourse structure and structural features of text to make meaning; use of text schema knowledge (such as what boldface means or what transitions are signaling) to comprehend meaning	The evaluation will not be displayed due to low response rate.	
1.4) **Comprehension**: Understanding the important ideas in the text		n=57 av.=2.18

Table 3. Post-test CERA Results Spring 2013



For each of the categories on the rubric, student responses could be rated at one of four levels, beginning, basic, developing, and internalizing; for the purposes of analysis, these categories were given by the AHC study participants a corresponding numerical value, from 1=beginning to 4=internalizing. Angela explained that they talked to their research office to confirm the sample size large enough to be representative for the study, and she noted that they made sure the samples "were on the same colored paper" so they couldn't "tell which one's pre- and which one's post." As made clear in the tables, one of the categories in the rubric, Use of Text, Form, Structure, and Schema, was not included in the overall evaluation as not enough students in the sample had utilized these strategies in their responses. For the remaining categories, all students scored higher in the post-CERA. All four of the AHC had perceived that these leaps had taken place on their own by looking at their students' RRJs and DEJs over the course of the semester; however, they felt the

quantifying of the progress through the pre- and post- had greater meaning. Rory was particularly struck by what she termed "huge growth in comprehension and also metacognitive awareness." She thought these categories important in and of themselves but also significant in that metacognition and comprehension mapped "really easily" to the college's institutional learning outcomes. Vivienne resonated with this view as well and had talked with the chair of the committee coordinating the college's learning outcomes about how the CERA results could be used to assist with general education assessments. All four felt their initial pre- and post- study showed enough promise that they were spearheading its expansion and participating in the second year iteration which was set to sample from the 1,500 enrolled in all 40 sections of the most recent College Success course cohort.

Finding #6: The study participants believed their membership in 3CSN's Reading Apprenticeship Project had resulted in their improvement as practitioners and as members of a larger professional community.

All seven of these exemplars believed that their participation in the Reading Apprenticeship Project transformed the way that they thought of themselves as teachers, leading them to make permanent changes in their classrooms and also to take an active role in helping fellow colleagues transform their practice. They described the increased engagement and achievement in students in tandem with their own ongoing engagement and development as professionals within the networked communities of practice sponsored by 3CSN. And in several instances, they credited their participation in 3CSN as being integral to helping them attain these increased levels of professional and disciplinary expertise.

The Value of Building Learning through Collaborative and Metacognitive Approaches.

Giving students the space to tackle course content interactively and independently was the most cited and valued change to their instructional practice. They believed the RA routines were vehicles to powerful learning because they require students to make their thinking visible to one another. They additionally spoke to the important side benefit of students bringing knowledge and insights to the table that they as teachers never could have come with on their own. They felt good that they didn't have to bear the sole responsibility for coming up with answers or guiding the learning. Catherine summarized the shift RA helps teachers achieve as moving from the teacher owning the learning to one of the class building learning outcomes together. She added that RA has "made me a better teacher because I'm teaching less, but I'm enabling and facilitating their learning more."

The key informants also described changes in their instructional beliefs and behaviors in terms linked to the RA Framework. When Angela described how, since fully integrating RA, she didn't "even have to be in the room" for the class to tackle course work, she attributed her increasing belief in the value of student independence to her increasing ability to embed the social and personal dimensions of the RA Framework into her practice. Liana ascribed growth in her teaching to her internalization of how metacognition works and how to unearth learning strategies with students through metacognitive conversation. She remarked that metacognitive routines actually help "students to bring out all their ability to question the way a scientist would question." Furthermore, RA's emphasis on metacognition parallels the scientific method where, as Liana stressed, "You have to have mistakes to get answers to the questions and get more observations." Ultimately, Liana felt that the very nature of metacognitive-based instruction was helping her demonstrate the scientific method more thoroughly and organically for students.

The respondents believed the Framework's model for apprenticeship through developing the personal, social, knowledge and cognitive dimensions in students transitioned them into more valuable coach-like roles and at the same time made them feel more powerful as instructors. Laura talked about how she felt she was really making progress apprenticing students into disciplinary ways of thinking and although she hadn't gotten "everybody in the circle" through RA, she said she felt more powerful as a teacher: "I'm the Wizard of Oz, how did this happen?" Whereas Catherine had often felt dread in the past at the idea of word problems, now she said she embraced them because word problems help students understand that just as in "real life" there's not always going to be a pat equation given to you to solve. Catherine had not had the ability to ride out the fear and confusion that word problems often triggered in students, but through RA's emphasis on metacognition she now felt confident she could facilitate their ability to "logically work through a process and get to an answer." In short, the more they moved away from being the 'sage on the stage' the more they felt they had the power to increase student competency and achievement—in effect, they then perceived themselves more genuinely expert and more able to not only help students read highly challenging material but to transfer valuable learning to students in a real-world applicable way. Liana phrased it this way: "As an expert, I feel my responsibility is to model for them complex ways of thinking so that they can build similar habits of mind as professionals in physics and astronomy." In other words, Liana felt her main obligation as a teacher was in fact to apprentice students.

The study participants described how the increased expertise they found through being in the CoP fed their desire to facilitate RA with other colleagues as well as with tutors. Rory gave the example of not having had any education courses and how building

facilitation agendas really helped her understand how to build an effective course lesson plan and thus become a much more skilled practitioner. Interestingly as well, they all talked about how implementation in their classroom led to them wanting to bring RA techniques to other professional contexts and improve discussions and decision-making in other contexts. Angela claimed the increased use of RA to facilitate shared governance meetings promoted collegiality and improved AHC campus climate. Many of the study participants discussed recruiting particularly resistant colleagues and having those individuals incorporate RA into their practice as well as spread the word to others about its effectiveness as an intervention. Personal professional advancements were also attributed to being part of Reading Apprenticeship Project. For example, Laura became a network coordinator for 3CSN and led many professional development activities across the state based on her RA expertise, Liana was creating the RA STEM rubric for the Strategic Literacy Initiative, and Rory had facilitated RA for system-wide trainings across the state of Michigan.

The Value of Social Learning in Networked Communities.

Most fundamentally, the key informants attributed the ongoing transformation of their instructional and professional practice to engaging with 3CSN and its professional learning communities and to individuals located throughout the extended network. Aside from the multiple resources and technical assistance available through the linked networks and communities of 3CSN, they felt that the consistent opportunities for connection, for genuine conversation and knowledge exchange between practitioners, ensured that transformations would happen. As Liana put it, "in 3CSN that you have all of these personal

connections, they talk to each other, and then you meet that same person in a different location three times—it's enough to stick."

Kendall and Rory both described 3CSN's essential value in meeting practitioners where they are at in their stages of professional development, providing them with just in time support. Kendall talked about how she had built "ongoing relationships" with people in the network to call upon when she really needed assistance in the moment—"that's when the deep learning happens." Rory gave an example of someone in the RAP community who was supported by 3CSN to attend the RA LCoP even though she was probably never going to become a certified facilitator. But Rory saw the worth of this individual's continued participation in the various activities of RAP and 3CSN. She talked about how it's been years of hard work for this practitioner from a small, rural community college. Rory described how this practitioner was slowly but surely growing, and now ran a tiny faculty inquiry group: "It's not the kind of results a funder would like to see and is not fast, but we're talking about, when you change a teacher, how many students do you impact?" All of the study participants emphasized the importance of the network and its CoPs' sheer existence, just being there when practitioners needed to connect. And Rory concluded that, in terms of sustaining a practitioner in the day to day struggles of improving teaching and learning, 3CSN and its CoPs functioned in much the same way as AA: "Some people don't even need to go to meetings. Some people need to go every day for the rest of their lives and it's an uphill battle." In Wenger, Trayner, & de Laat's (2011) conceptualization, "new practices or tools are not enough, even when applied" (p. 21); the realized value does not lie in the guarantee of performance improvement but in the

ongoing conversation and reflection around the shared domain—and the ability of practitioners to move in and out of that conversation as desired.

Section Five: Perceived Reframing of Success as a Result of Participating in 3CSN's Reading Apprenticeship Project

- What role has a coordinated Professional Development initiative, 3CSN's RAP, played in helping practitioners solve issues surrounding student completion? (Value Creation Cycle 5)

In Cycle 5 in their framework for assessing communities and networks, Wenger, Trayner, & de Laat (2011) describe indicators pointing to changes in individual, collective, and institutional understanding of what counts as success. They propose that this reframing or redefining "is achieved when social learning causes a reconsideration of the learning imperatives and the criteria by which success is defined" (p. 21). Evidence that reframing has taken place includes the enactment of new learning agendas, metrics, or assessment processes; different conversations amongst stakeholders, involvement of new stakeholders, and new sets of expectations; adoption of new strategic directions, and newly emerging or created systems or frameworks (Wenger, Trayner, & de Laat, 2011). Similarly, the Reading Apprenticeship model argues that by building practice around the four dimensions in the Framework faculty and students will transform "subject area classes into collaborative, inquiry-oriented learning environments that intellectually engage, challenge, and support students (Schoenback, Greenleaf, & Murphy, 2012, p.15). The value of transformed definitions or frameworks experienced by the key informants has been analyzed for their potential applicability in both student and professional learning contexts as well as for indications that their social learning has helped them seek new ways to seed

the kind of inquiry-based cultures both the RA Framework and the 3CSN networked communities promote as vital to the academic enterprise.

Finding #7: As a result of participating in 3CSN's RAP and its other coordinated networks and communities, the study participants have reframed their ideas about professional development and how it can help them transform approaches to student success.

Critical Reading and Thinking as a Shared Imperative.

For the study participants, 3CSN's Reading Apprenticeship Project taught them a theoretical and practical structure with which they could refine and direct student learning, and, in their view, unlike other professional development experiences, RAP intellectually engaged them and challenged them to rethink how to consciously make critical reading and thinking the center of the classroom experience. Through their CoP's social learning, they worked together to form a new learning agenda around RA, an indication of what Wenger, Trayner, & de Laat (2011) would term building "community aspirations" (p. 31). As previously reported, Kendall, Rory, Liana, Angela, and Laura all redesigned courses embedding RA into their daily curriculum. Even someone like Catherine, who initially thought that not that much reading took place in math, came to understand that the RA framework could be utilized in the context of helping students "read" problems and solve them. Angela came to the conclusion that think-alouds and talking to the text were so valuable as to make them an everyday staple of her class because these routines gave her students the critical thinking capacity necessary to "improving their actual real-life reading skills, which is of course what we want from all of our students." Additionally, Liana, Kendall, and Laura have worked hard to help tutors reframe their thinking and make

uncovering the reading and thinking processes that go into addressing an assignment the centerpiece of their tutoring sessions. The study participants felt that a lot of lip service was paid on their campuses regarding the central importance of reading to academic success but that the iterative attention to reading practice, the internalization of reading as a habit, was nevertheless not taking place. The key informants' course redesigns illustrated their commitment to making their conceptual shift to the centrality of apprenticing students to reading within the context of their disciplines a reality.

Conceptually placing the reading of texts, including the reading of math problems or scientific graphs and charts, at the center of the academic enterprise led to new thinking on the part of the participants about what students were capable of and how the institution could design better ways for students to achieve their educational goals. Thus, they were actively seeking institutional strategies reflecting the community's social learning, another indicator of reframing success (Wenger, Trayner, & de Laat, 2011, p. 31). Laura gave the example of how she was leading the conversation in her department debating the necessity of an English composition advisory placed on the introductory psychology course. She was beginning to bring in data showing how students who had ignored the English advisory were doing better in her RA-infused classes than students in other non-RA sections who also ignored the advisory. She believed she needed more data, but that the preliminary results were promising and would demonstrate how her department could eliminate the advisory by incorporating RA into their curriculum. The AHC participants pointed to the persistence rate of their College Success students[7] in demonstrating how once they moved

[7] Arroyo Hills College has leveraged Reading Apprenticeship as a central piece of their First Year Experience (FYE) program, resulting in Fall to Fall persistence rates increasing to 93.2% from 77% percent and elimination of the achievement gap for FYE students.

from a deficit model of thinking that students were unprepared to tackle college-level reading to a strengths-based point of view they could make a dent in first year student achievement. Rory explained this shift both in terms of what this meant for students and what this meant for the faculty who were trained to teach the course. She said that the leads for the College Success course worked to choose books that were challenging, meaty, and real because there are lots of "ways in" for students, especially with the support of RA in the classroom. Talking about *The Immortal Life of Henrietta Lacks*, she noted, "People would say that our students are not at the 'reading level' to read that book; well, they read it and did great with it." And once she, Angela, Catherine, and Vivienne saw the impact on student persistence, Rory said this "really galvanized us to say that Reading Apprenticeship was not just a little add-on or a small support to this work; this has got to be the center of" the faculty learning in the professional development for the college success course.

Creating New Frameworks and Spaces for Professional Learning.

The group also perceived that their experiences with RAP were helping them redefine the efficacy and importance of professional development for others. They reflected about how they felt so many of their colleagues wanted to improve their practice but that, like students, they had fears about trying new approaches. All the participants linked awareness of the personal and social dimensions in RA with transformations in their ideas about what constitutes effective professional learning.

As part of her evolving notions about faculty development, Vivienne had begun to advocate for increased time and institutional support to create safe spaces for ongoing professional learning. She described adhering to a professional learning framework in which practitioners can apprentice new approaches with one another and even "fail and

nobody will judge you or think you're incompetent, but understand that you're learning." Laura added that faculty needed to get back in touch with what it's like to struggle and grapple with new learning—just like their students. Angela believed using the personal and social dimensions of Reading Apprenticeship to build ongoing communities of practice succeeded in helping colleagues who "had gotten into this horrible spiral just thinking the students aren't ready and aren't good enough; now they're part of this exciting group that's reading together and talking about the struggles we all face." Rory also spoke to the idea that effective professional development, like any high impact learning, needed to move away from once and done, cherry-picking, and passive modalities to socially interactive, personally and intellectually challenging, recursive experiences. She did not differentiate between the "push-ups and sit-ups" the RA routines require of students to build their personal and social dimensions and cognitive stamina in the classroom with the RA-informed professional development she was leading at her campus and throughout the other networks and communities supported by 3CSN. The other study participants also appropriated this exercise metaphor to frame their ideas about how successful learning, whether in a professional development or classroom context, should occur. Rory stressed that while someone cannot be forced to participate—i.e. he or she might lie on the mat motionless during that expensive pilates class—an instructor or a student "can't ethically tell me that I don't need that or I don't have to do that if I want to make progress." She added, "I don't care if they don't like it. I'm offering them a chance to be able to do this thing." As related to Wenger, Trayner, & de Laat (2011), the study participants felt their social learning in RA helped support them in the development of new sets of expectations for stakeholders, especially when encountering resistance to change.

In doing "this thing" of infusing RA into professional learning at their colleges, the study participants sought or created synergy with other institutional efforts. On the part of the AHC study participants, they worked together to implement RA in several areas where the college was doing re-designs aimed at increasing student success and persistence. RA routines were included in new faculty orientation, faculty training in the first year experience program, as part of the curriculum re-design to form non-STEM pathways, in their group counseling orientation, and in STEM and CTE faculty trainings. Angela and Catherine gave examples of RA being written into the new curriculum and textbooks their English and math redesign teams were creating as well as the corresponding professional learning seminars. Angela shared CERAs with 40 faculty members in the first year experience program training to demonstrate the difference in student learning outcomes in classrooms where a lot of time was spent on RA vs. not, illustrating what she felt was the transformational power of sticking to the routines with students.

At Metropolis Northeast College, the Center for Academic Success incorporated RA into all its trainings for faculty and tutors helping students complete basic skills. Laura reported that more department chairs were communicating to their faculty that "it's not just about reading, it really is not just about reading," and this understanding of RA as a multi-dimensional framework helping students acquire the metacognitive skills necessary for college success was leading to greater participation in RA workshops across disciplines. Kendall tempered Laura's descriptions slightly by suggesting that the openness to RA-infused professional training at Northeast was hampered by the very name Reading Apprenticeship. She said she used different terms to talk about the intervention, calling it "cognitive apprenticeship" or just categorizing it as effective practices. And Liana, perhaps

reflecting the fact she has a split assignment as both classified and faculty staff member at her college, mostly felt like a lone wolf at Metropolis Northwest, noting that while she had been asked to help with the RA training at AHC and at Metropolis Northeast her own campus had little interest in her helping them implement RA in a systematic manner.

Redefining Professional Identity.

Finally, the study participants expressed a collective belief in the power of the 3CSN networked communities of practice model, attributing their abilities to spread new frameworks and metrics for improving practice to the web of support 3CSN had provided. No matter their entry point into the network, whether it was through the Faculty Teaching and Learning Academy or the BSILI Leadership Institute, the key informants noted that they appreciated the structure, based on communities of practice theory, as well as the mutual accountability, emanating from genuine relationships built over time.

For Catherine, through engaging with 3CSN, her ideas about professional development had "moved from something that I do outside of school and that I have to look to other professional organizations to something that can happen within the campus and that I can learn from others." She added that she had believed it was possible to genuinely spread best practices with others, but starting with FTLA and then with participating in BSILI and finally RAP, she learned how to internalize ways to "find the bright spots on campus and to use those to teach others, and to develop people on campus." Through this redefined sense of professional learning, Catherine was able to conduct different conversations with colleagues, leading to new opportunities for reframing curriculum such as the non-stem math sequence development she led on her campus. Vivienne believed that cultivating and sustaining deep learning in communities of practice as well as spreading

new ideas and connecting a variety of people through networks, as she understood the 3CSN model of professional development, should be standardized. She thought she was learning how to be a better practitioner, one who could design and implement a well-thought out and pedagogically sound lesson plan. Even so, and as noted earlier, Vivienne paradoxically remained hesitant about continuing on with teaching in the classroom while remaining committed to facilitating RA training with colleagues.

Kendall expanded on 3CSN's importance in not just providing opportunities for practitioners to share but by holding them accountable for others: "Because you're accountable to other people in your community, you're going to do things that are outside of your comfort zone." Kendall thought the space provided for risk-taking also was the reason "so many leaders come out of 3CSN." She gave as an example a librarian who came to BSILI never imagining she'd end up leading workshops across the state on growth mindset and becoming a BSILI facilitator herself. Angela described how fellow colleagues replicated BSILI at AHC and credited this with starting an "institutional revolution" and creating a leadership community of practice to support their "change initiatives," including their award-winning first year pathways program.

Laura characterized 3CSN's importance as giving her "hope" which she equated with the promise of transformation. Both she and Rory talked about the nay-sayers who will often jump on enthusiastic colleagues who try to promote and integrate teaching and learning innovations at campuses. Laura and Rory agreed that 3CSN's emphasis on learning how to lead conversations with colleagues, on how to facilitate professional learning, but also just on allowing people to come back again and again worked. Rory explained further that the CoP framework worked "because it soothes the discomfort of

learning." In her circumstance, she perceived that Reading Apprenticeship had initially sparked "tremendous professional growth," but then "attaching that to 3CSN" had exponentially grown her expertise to the point that she could transfer learning about Reading Apprenticeship so effectively to others through RAP and at a level not previously seen in community colleges. She added that, in her opinion, it was the layers of intra- and inter- college networks supported by 3CSN and the cross-pollination between the various communities of practice that allowed the diffusion of innovation to move much more rapidly in California: "It's not easy to describe, but when I try to explain to people in other states, I realize the extraordinariness of what we've got." She concluded that the porous nature of the network was also essential as it allows a mix "between the solid tradition and then outsiders coming in, bringing new ideas, and that makes a healthy community of practice." These indicators of reframing and transformation speak to the ideals the study participants had formed about how their participation in RAP was powerfully linked to a shared sense of the importance of professional development in cultivating a more actualized professional identity.

Summary.

Because system-supported California Community Colleges' Success Network (3CSN) has structured its professional development delivery around social learning modalities, the conceptual framework proposed by Wenger, Trayner, & de Laat (2011) was used to analyze the value, according to study participants, of interventions supported by the network and taught through one of its communities of practice, the Reading Apprenticeship Project. Data collected through individual and group interviews, practitioner observations, and a survey were systematically described and analyzed using the five categories or

"cycles" of the conceptual framework. Additionally, the data, where applicable, were examined within the context of the Reading Apprenticeship Framework itself to determine the extent to which correspondences between the cycles of value and the social, personal, knowledge-building, and cognitive dimensions shed light on understanding how a coordinated professional development intervention helped participants solve problems of practice. Evidence pointing to perceived value was discovered across all cycles, patterns connecting the cycles of community and network learning to the RA dimensions were described, and seven findings corresponding to the research questions were outlined.

CHAPTER FIVE

Introduction

More than 500 faculty from over half of California's 112 community colleges have participated in various Reading Apprenticeship Project (RAP) activities since 3CSN launched RAP in 2012. Several of these activities have been formal training sessions endorsed by WestEd's Strategic Literacy Institute (SLI), the organization which designed the Reading Apprenticeship Framework and its accompanying routines, trained K-12 and college faculty across the United States, and has studied and disseminated RA results for nearly twenty years. In late January 2014, a survey was sent to all known California community college faculty who had been formally trained in RA, whether exclusively under the auspices of SLI or 3CSN—or a combination thereof. All seven of the RAP exemplars participated in the survey, along with 119 other faculty who had completed RA training over the last nine years. This chapter presents the methodology, procedures, and results of the survey in order to paint a picture of the key informants relative to the overall landscape of RA trainees in the state and to understand, generally speaking, what RA implementation looks like in California community colleges.

Method

A survey instrument was developed with 40 items focused on five domains of Reading Apprenticeship. The primary interest was to develop some understanding of how widely RA was being applied in the classroom and if those applying it were seeing results in their students. Therefore, the main domains of study for the survey were of application and evidence of realized outcomes. It was posited that the application of RA in the classroom would most likely be related to how much knowledge teachers had of RA and

how supportive their environment was on campus for RA. Finally, it was also expected that those who had experienced more training and engagement with the RA research would be more likely to apply RA and see more outcomes.

The training component of the survey focused on the types of training a participant had attended. A number of training opportunities were listed and participants were asked to select which they had attended. They were also offered the opportunity to list other trainings and workshops they had attended. During the data analysis stage it was decided that the trainings were sufficiently diverse that just combining them into a ranking by count would not represent their training with any validity. For instance, one might attend 4 or 5 workshops for RA but still not be as well trained as someone who attended one 3-day Institute. For the 126 survey participants, 38 different combinations of training attendance were recorded. This was obviously more nuanced and needed interpretation with more attention than a simple index created from the numbers of training opportunities attended. The information collected from the survey was combined and presented to a key informant close to RA who was asked to rank the combination of trainings from highest to lowest "trained." This ranking was then applied to each participant as the variable "Ranked Training."

One of the many contextual variables that are expected to moderate someone's application of RA is that of their campus environment. While it might be easy enough for a teacher to put RA to work in her classroom, if a campus is not very supportive of RA then it will be an uphill battle to do much more than that. Therefore, the survey included four items that focused on the supportive campus environment, campus professional development around RA, and the exchange of information and interaction with other

teachers on campus involved in RA. These were combined to create a campus support average score for each participant.

The application of RA should also depend upon how well teachers understand the RA principles. Questions were developed to address each of the routines and the framework. Participants were asked about their familiarity and their confidence in implementing the Think Alouds, Talking to the Text, Metacognitive Log (Double-Entry Journal), and Think Pair Write Share routines and the Social, Cognitive, Personal, and Knowledge-Building dimensions of the framework.

Questions about applying RA in the classroom were organized around broad applications of RA principles such as equity and setting literacy goals, the specific routines (e.g., how often do you use Think Alouds?) and applications of the framework's domains. Each domain (i.e., social, cognitive, personal, knowledge-building) was divided into its dimensions and one to three questions asked about each dimension on a 5-point scale of Never=0, Rarely=1, Occasionally=2, Often=3, and All the Time=4.

The final domain is that of the realized outcomes in their students. Because the potential interpretation of outcomes is a very broad topic, this was limited to a single item asking "How much change in the quality of learning have you seen as a result of your application of RA?. Response options were categorized along a 6-item ordinal scale of No Change, Slight Change, Some Change, A Lot of Change, Significant Change, and Beyond Expectation. An option was offered here for those who "have not used RA" in their classroom. Those who selected the last option were removed from any analyses concerning outcomes.

Population and Sample

A list of people (n=408) was obtained from the RAP Coordinator that included their name, email address, school, and the known RA training they had attended. These individuals were all known California community college professionals who had attended RA training 2005-present. This list was cleaned in collaboration with the RAP Coordinator to remove attendees who were not teachers and in one case a person was removed from the list because he had unexpectedly passed away since attending training. The final list of potential participants (n=400) was entered into Survey Monkey. When the first emails went out on January 27th, 2014 from Survey Monkey, 2 additional participants were excluded because they had previously opted out of a Survey Monkey survey (Survey Monkey retains those preferences and applies them to all future Survey Monkey surveys), 2 opted out at the first email, and 4 emails bounced, bringing the total potential participants to 392. 126 participants provided complete data on the survey for a 126/392=32.1% response rate.

Data Collection Procedures

The survey was loaded onto Survey Monkey and each potential participant was sent an introductory email from the Reading Apprenticeship Project (RAP) Coordinator as a way of priming their participation. One week later an email was sent from within Survey Monkey that included an introduction to the study, a brief informed consent, and a link to the survey. Two reminders were sent (2/10 & 2/17) before the survey was closed on February 20, 2014.

Results

The table below provides a breakdown of the trainings selected by participants and those the full sample of potential participants had attended (invitees). The most often

selected training attended by participants was that of the online course (44.7%), followed by 3-day seminar (26.1%) and LCoP (18.6%). In most ways, the participants are similar to the invitees. The striking difference is that of LCoP (Leadership Community of Practice) participants. The participant group is over-represented by LCoP members by more than 2x. This could be the result of having the study emanating from the 3CSN RAP leadership, which is also who sponsored and designed the LCoP. Also, fewer participants participated in the Community College Professional Development than the invitees.

Table 4. *RA trainings attended by participants and invitees*

Training	Participants		Invitees	
	N	%	N	%
Online Course	84	44.7%	310	50.9%
3-day Seminar	49	26.1%	178	29.2%
Leadership Community of Practice	**35**	**18.6%**	**54**	**8.9%**
CC STEM Institute	8	4.3%	31	5.1%
Community College Research Group	6	3.2%	16	2.6%
CC PD	**1**	**0.5%**	**10**	**1.6%**
Community College Hewlett Regional Leaders 2009-2010	4	2.1%	8	1.3%
Campus Coach for Community College, Winter 2013	1	0.5%	2	0.3%
Total	188	100%	609	100.0%

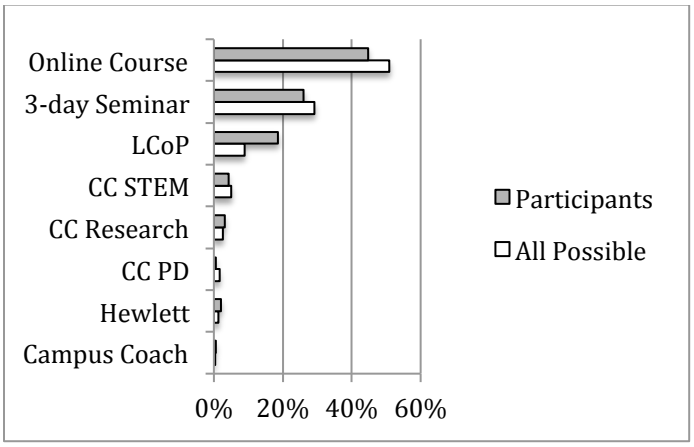


Figure 2. Amount of training experienced by survey participants. This figure depicts the extent to which survey participants attended RA trainings out of all trainings possible.

Given the issue of LCoP participant over-representation in the sample, the question developed as to whether participants had come to RA through their connection with 3CSN

or some other connection. Here again the RAP Coordinator was asked to look at the entire list of potential participants and note whether or not they came to RA through 3CSN or some other way. Note from the table below that 3CSN-recruited participants represent almost three quarters of survey participants while they are only just over half of the total invitees. The single "Not Sure" participant was coded as "No" for all analyses.

Table 5. *Participants and Invitees Recruited through 3CSN or Other*

	Participants		Invitees	
Recruited through 3CSN	N	%	N	%
Yes	93	73.8	218	54.5
No	32	25.4	178	44.5
Not sure	1	0.8	4	1.0
Grand Total	126	100%	400	100%

Key informants used elsewhere in this research are labeled as such in this chapter and compared to other non-key informants.

Training Domain

Most participants (61%) had attended their most recent RA training within the past year and most reported having attended Online RA 101 (36.5%).

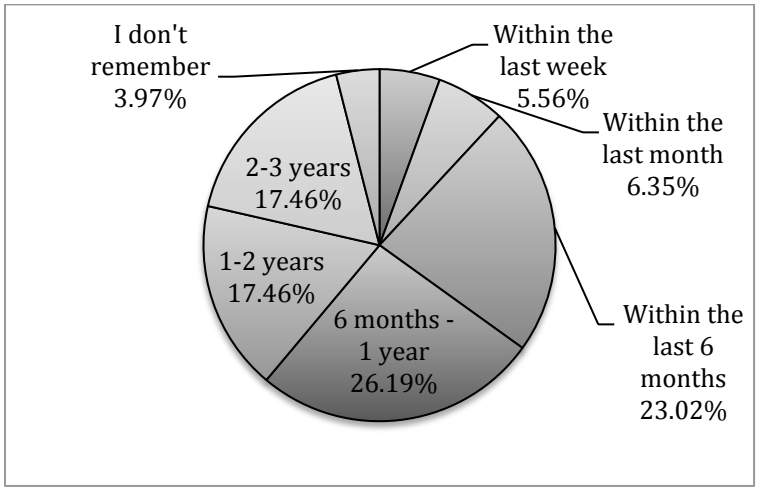


Figure 3. Most recent training. This figure represents how the survey respondents answered the question, 'How long ago was your most recent RA training?'.

Table 6. *Most recent training attended by participants*

Training	N	%
Online RA 101	46	36.51%
3-day	27	21.43%
Leadership Community of Practice (LCoP)	17	13.49%
Winter Institute	16	12.70%
STEM Seminar	7	5.56%
Online Campus Coach	5	3.97%
I don't remember	8	6.35%
Total	126	100%

More than half (59.5%) had attended additional RA-related workshops and about half of those attended 3 or fewer (50.7%) workshops. Having attended more than 10 workshops on RA, a few participants (n=6) seem to be avid workshop attendees.

Table 7. *Number of workshops attended by participants*

Workshops	N	%	Cum %
1	11	14.7%	14.7%
2	16	21.3%	36.0%
3	11	14.7%	50.7%
4	9	12.0%	62.7%
5	8	10.7%	73.3%
6	7	9.3%	82.7%
7	2	2.7%	85.3%
8	2	2.7%	88.0%
10	3	4.0%	92.0%
>10	6	8.0%	100.0%
Total	75	100.0%	

There was a broad combination of training attendance by these participants and it was important to classify them on some spectrum that allowed comparing more trained or engaged teachers with those who may have had more limited exposure to RA training. There were 38 combinations of training selections and each was given a rank based on its importance for training and RA readiness it provides (lower number = higher ranking). Not surprisingly, where more trainings were selected, a higher ranking was attached.

These rankings were then applied to each participant and analyses incorporating a training element used this ranking.

Table 8. *Combinations of trainings and rankings*

	N	RANK
Online RA 101, 3-Day, Leadership Community of Practice (LCoP), Winter Institute, LIRA, Consultant for SLI?	1	1
3-Day, Leadership Community of Practice (LCoP), Winter Institute, STEM Seminar, Consultant for SLI?	1	2
Online RA 101, 3-Day, Leadership Community of Practice (LCoP), Winter Institute, Consultant for SLI?	2	2
Online RA 101, 3-Day, Leadership Community of Practice (LCoP), Winter Institute, College 1, Participant Observer SLI	1	3
3-Day, LIRA, Former Consultant	1	4
LIRA, STEM Seminar, Former Consultant	1	4
Online RA 101, 3-Day, Leadership Community of Practice (LCoP), Winter Institute	5	4
Online RA 101, Leadership Community of Practice (LCoP), Online Campus Coach, College 1	1	4
Online RA 101, Leadership Community of Practice (LCoP), Winter Institute, Online Campus Coach	1	4
Winter Institute, LIRA, Former Consultant	1	4
3-Day, Leadership Community of Practice (LCoP), Winter Institute, Online Campus Coach	1	5
3-Day, Leadership Community of Practice (LCoP), Winter Institute, STEM Seminar	1	5
Leadership Community of Practice (LCoP), LIRA	1	5
Online RA 101, 3-Day, Leadership Community of Practice (LCoP)	2	5
Online RA 101, 3-Day, Winter Institute, STEM Seminar	1	5
Online RA 101, Leadership Community of Practice (LCoP), Online Campus Coach	1	5
3-Day, Leadership Community of Practice (LCoP)	4	6
Leadership Community of Practice (LCoP)	4	6
Leadership Community of Practice (LCoP), Winter Institute	1	6
Online RA 101, Leadership Community of Practice (LCoP)	6	6
Online RA 101, Leadership Community of Practice (LCoP), Winter Institute	5	6
3-Day, LIRA	1	7
LIRA	1	7
Online RA 101, 3-Day	5	7
Online RA 101, 3-Day, Online Campus Coach	1	7
Online RA 101, 3-Day, STEM Seminar	1	7
Winter Institute, LIRA	5	7
3-Day, STEM Seminar	1	8
Online RA 101, College 1	2	8
Online RA 101, FTLA	1	8
Online RA 101, LIRA	1	8
Online Campus Coach	1	9
Online RA 101, Online Campus Coach	1	9
Online RA 101, Winter Institute	2	9
3-Day	18	10
Online RA 101	40	10
STEM Seminar	2	10
Winter Institute	1	11

Because the ranking variable does not normally distribute, group comparisons should not assume equal variance. Therefore, a Welch t-test was used to investigate any differences in ranking. The key informants for the project were ranked significantly higher (t=3.0494, df=6.382, p=0.021) in training than the rest of the participants. Those who were recruited through 3CSN did not rank higher (t=0.5067, df=64.904, p=0.61) than those not recruited through 3CSN. LCoP participants were ranked significantly more trained than those who did not report participating in the LCoP (t=15.2691, df=80.047, p< 0.001).

Supportive Environment Domain

The supportive environment domain is addressed through four items that ask generally and then more specifically how supportive it is to engage in RA on their campus. Most all participants reported either neutral or agree that their campus environment is supportive of RA.

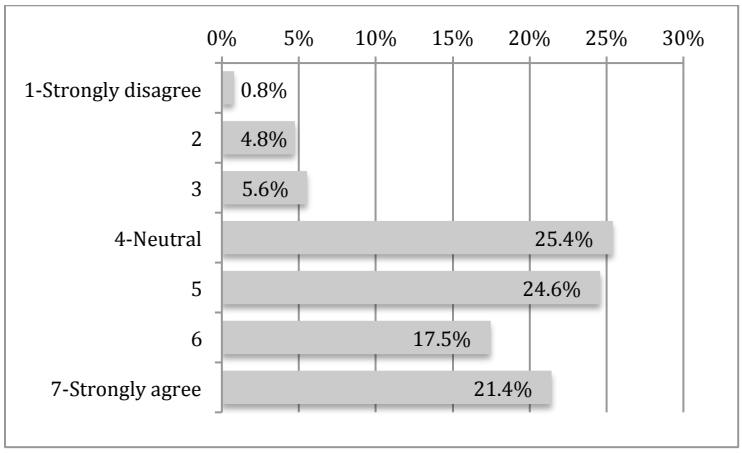


Figure 4. Campus supportive environment. This figure describes the extent to which survey respondents agreed their campus was supportive of RA.

Also asked was about professional development opportunities at their campus and whether or not other faculty interact on campus about RA. Most reported occasional or often experiences on their campus.

Table 9. *Campus RA events and interactions*

Question	Never-0	Rarely-1	Occasionally-2	Often-3	All The Time-4	Total N	Average
There are RA-related PD opportunities at my campus	7.14%	22.2%	**50%**	16.7%	3.9%	126	2.88
I interact with other teachers at my school who are involved with RA	6.4%	6.4%	**44%**	31.2%	12%	125	3.36
Teachers involved in RA exchange expereinces of how we implement RA	.9%	14.4%	**47.5%**	30.5%	6.8%	118	3.28

These four items were combined into a "Supportive Environment" index by taking the mean score of the four for each person. This environment score distributed normally and seems to provide an adequate measure of a participants' environment (Figure 5 below).

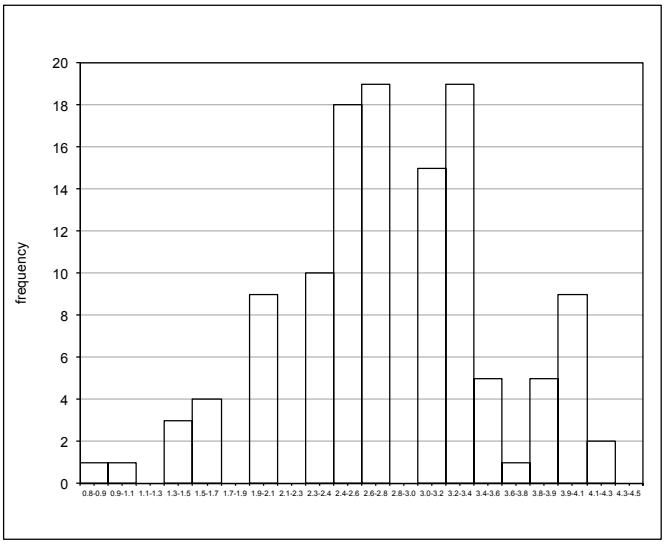


Figure 5. Supportive Environment Index Histogram. This figure depicts a combined score of four survey items concerning respondents' characterization of the campus environments support of RA.

There is no significant difference on how supportive their environment is between key informants and others, those recruited through 3CSN and those not, or LCoP participants and non-participants.

Knowledge Domain

The knowledge domain consisted of questions asking participants' confidence and familiarity with the RA Routines and the RA Framework. There was generally strong confidence and familiarity with both the routines and the framework, with selections generally falling in the high end of the scale.

Table 10. *RA Routines Familiarity Responses*

	0-Not at all familiar	1	2	3	4	5	6-Very familiar	N	Avg.
Talking to the text	0%	0%	1.6%	5.6%	10.3%	14.3%	68.3%	126	5.42
Think Alouds	0%	0%	3.2%	4.0%	9.5%	16.7%	66.7%	126	5.40
Metacognitive Log	1.6%	1.6%	2.4%	4.8%	13.5%	11.9%	64.3%	126	5.20
Think Pair Write Share	1.6%	3.2%	0.8%	6.4%	11.9%	18.4%	57.9%	126	5.10

Table 11. *RA Routines Confidence Responses*

	0-Not at all confident	1	2	3	4	5	6-Very confident	N	Avg.
Talking to the text	0.8%	1.6%	2.4%	5.6%	8.7%	17.5%	63.5%	126	5.26
Think Alouds	0.8%	2.4%	3.2%	4.8%	5.6%	19.8%	63.5%	126	5.25
Metacognitive Log	2.4%	2.4%	4.0%	6.4%	7.2%	16.8%	60.8%	125	5.07
Think Pair Write Share	4.0%	2.4%	1.6%	10.3%	7.1%	19.1%	55.6%	126	4.94

Table 12. *Familiarity with the RA Framework*

	0-Not at all familiar	1	2	3	4	5	6-Very familiar	N	Avg.
RA Framework	0%	0.8%	2.4%	9.8%	16.3%	26.0%	44.7%	123	4.98

Table 13. *RA Framework Confidence Responses*

	0-Not at all confident	1	2	3	4	5	6-Very confident	N	Avg.
Social	0%	1.6%	3.9%	9.5%	18.3%	19.8%	46.8%	126	4.91
Personal	0%	1.6%	4.0%	10.3%	15.9%	24.6%	43.7%	126	4.89
Cognitive	0%	2.4%	3.2%	10.3%	14.3%	27.8%	42.1%	126	4.88

Knowledge-Building	0%	2.4%	4.0%	8.7%	15.1%	29.4%	40.5%	126	4.87

Each of these items was coded with the numbers shown in the tables above and averaged to produce routines and framework knowledge mean scores for each person as well as an omnibus knowledge score. As is visible from the tables, the knowledge mean scores are negatively skewed and do not normally distribute across the possible scores (Figure 6 below).

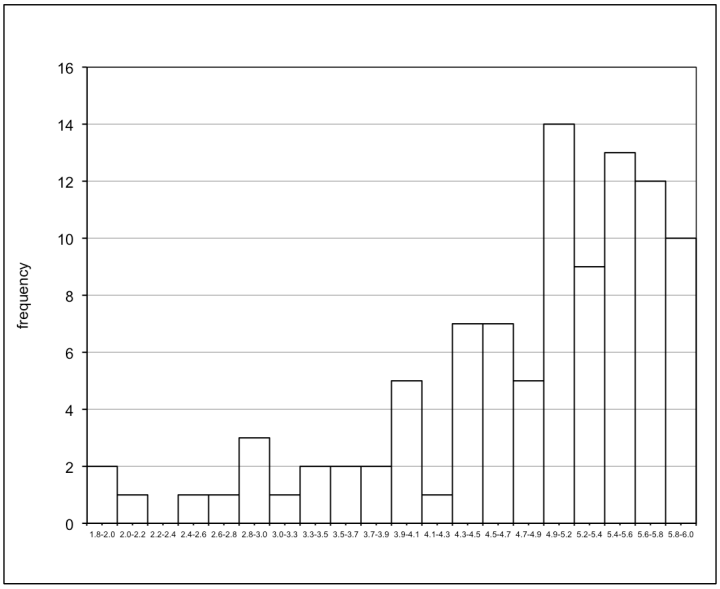


Figure 6. Histogram of Knowledge Means. This figure depicts the distribution of the survey respondents' knowledge mean scores.

A paired samples t-test of the framework and routine knowledge means shows that there is greater confidence and familiarity with the routines than the framework (t=3.80, df=125, p<.001). In 2-sample Welch t-tests (equal variances not assumed because of the abnormal distribution), there was no significant difference between key informants and others on the framework knowledge, or the routines knowledge. There was also no significant difference between those recruited by 3CSN and the others on the routines or framework knowledge.

There is a significant difference on the framework knowledge between the LCOP and non-LCOP participants (t=3.254, df=124, p=0.0015), but no significant difference on routines knowledge (p=0.183). That is, LCOP participants were significantly more knowledgeable about the RA framework than those who were not in the LCOP. Within the non-LCOP participants, there were also are no significant differences on knowledge about the framework (p=0.847) or routines (p=0.370). This lack of difference holds for the subgroups of non-LCOP participants recruited through 3CSN and those not recruited through 3CSN and key informants vs. non-key informants.

Table 14. *LCoP framework and routines knowledge*

	Routines		Framework	
	Mean	SD	Mean	SD
LCoP	5.378	0.868	5.383	0.778
Non-LCoP	5.123	1.062	4.675	1.283

Therefore, it can be concluded that the low knowledge of the framework by those who did not participate in the LCoP can account for the significant difference between routines knowledge and framework knowledge noted above.

Application Domain

To address the application domain, the survey included questions that focus on how much reading apprenticeship has changed their teaching and how often they use specific routines and framework dimensions in their classrooms. Each question is provided in tables and where more than a single question is provided, tables are sorted from most endorsed question to lowest endorsed.

Change in teaching could be considered a short-term outcome of RA training and here it is used as a leveraging mechanism (Chen & Rossi, 1987) in the theory of change of application in the classroom. Reading apprenticeship has changed almost all of the survey

participants (96.7%) and more than a quarter (26.9%) reported significant change from their experience with RA.

Table 15. *How much has your reading apprenticeship experience changed your teaching?*

0-Did not change	1	2	3	4	5	6-Significantly changed	N	Avg.
3.3%	3.3%	4.1%	11.4%	28.5%	22.8%	26.9%	123	4.34

More participants are using Talking to the Text than the other routines, but there is still a small percentage (4.8-10.6%) who have never used any routines.

Table 16. *Using routines in the classroom*

	0-Never	1-Rarely	2-Occasionally	3-Often	4-All the time	N	Avg.
Talking to the text	4.8%	7.3%	28.2%	34.7%	25%	124	2.68
Think Pair Write Share	10.6%	8.9%	20.3%	32.5%	27.6%	123	2.58
Metacognitive Log	8.9%	11.4%	23.6%	30.9%	25.2%	123	2.52
Think Alouds	6.5%	9.7%	30.7%	37.1%	16.1%	124	2.47

Table 17. *Confidence in differentiating instruction*

0-Not at all confident	1	2	3	4	5	6-Very confident	N	Avg.
4.2%	5.8%	6.7%	18.3%	17.5%	23.3%	24.2%	120	4.06

Table 18. *How often are RA dimensions applied in your classroom?*

How often do you…	0-Never	1-Rarely	2-Occasionally	3-Often	4-All the time	N	Avg.
Attach your course content to application in the real world?	1.7%	0.0%	9.2%	50.0%	39.2%	120	3.25
Talk in your classroom about what is confusing in texts?	1.6%	2.44%	13.8%	38.2%	43.9%	123	3.20
Encourage students to use problem-solving strategies when comprehension stalls?	0.8%	6.5%	14.5%	46.0%	32.3%	124	3.02
Encourage students to break down a text into easily comprehensible chunks?	1.6%	5.6%	19.2%	37.6%	36.0%	125	3.01
Have whole- and small-group problem-solving discussions to make sense of difficult texts?	3.3%	7.4%	15.6%	33.6%	40.2%	122	3.00
Encourage students to monitor their own comprehension?	3.3%	4.9%	22.8%	38.2%	30.9%	123	2.89
Talk in your classroom about how teachers and students deal with comprehension	3.3%	6.6%	18.0%	42.6%	29.5%	122	2.89

How often do you…	0-Never	1-Rarely	2-Occasionally	3-Often	4-All the time	N	Avg.
problems?							
Encourage students to see their reading from the larger perspective?	3.2%	6.4%	21.6%	41.6%	27.2%	125	2.83
Spend time developing student metacognition?	3.3%	5.8%	21.7%	43.3%	25.8%	120	2.83
Encourage students to identify the purposes of their reading and adjust how they read in response?	2.4%	9.8%	22.0%	43.9%	22.0%	123	2.73
Help students understand a text before reading it?	4.9%	10.6%	21.1%	39.0%	24.4%	123	2.67
Clarify how your discipline uses language and how it might differ from other uses of language?	4.8%	8.1%	29.8%	37.1%	20.2%	124	2.60
Set literacy goals for your students?	9.0%	13.1%	18.0%	32.8%	27.1%	122	2.56
Teach language by using your discipline's writings?	10.6%	13.0%	18.7%	33.3%	24.4%	123	2.48
Discuss students' reading experiences in your classroom?	4.1%	13.1%	24.6%	46.7%	11.5%	122	2.48
Provide opportunities in your classroom to identify and help students try out others' ways of reading?	6.7%	15.8%	22.5%	36.7%	18.3%	120	2.44
Spend time developing reader confidence and range?	8.9%	14.6%	25.2%	36.6%	14.6%	123	2.33
Focus on discussing schemas and how they can be triggered by a text?	10.7%	16.4%	23.0%	36.1%	13.9%	122	2.26
Spend time developing reader fluency and stamina?	8.9%	19.5%	26.0%	35.0%	10.6%	123	2.19

Table 19. *Equity is an important part of pedagogical choices*

-3-Strongly disagree	-2	-1	0-Neutral	1	2	3-Strongly agree	N	Avg.
0%	0.8%	1.6%	9.8%	13.9%	20.5%	52.3%	122	6.11

Table 20. *Providing text sets*

	%	N
Yes (1)	55.5%	66
No (0)	44.5%	53

Table 21. *Effort put into RA dimensions in the classroom*

How much effort do you put into…	0-No effort	1	2	3	4	5	6-A lot of effort	N	Avg.
Creating safety for students to explore reading?	2.4%	4.0%	4.8%	9.7%	16.1%	22.6%	40.3%	124	4.62
Sharing your reading experiences and thoughts about reading?	1.6%	5.6%	4.0%	13.6%	13.6%	24.8%	36.8%	125	4.54
Investigating the relationship between literacy and power?	10.6%	6.5%	7.3%	8.9%	22.0%	18.7%	26.0%	123	3.85

Each of the application domain questions was coded with the numbers provided in the tables above and average application scores were computed for the participants. The items were developed to address four dimensions of the framework and an overarching question about changes in teaching. These groupings can be seen in Appendix E and their mean scores are below in Table 22. Using the social dimension as reference, all the other dimensions are applied in the classroom significantly less than the social dimension.

Table 22. *Mean, Median, Mode and Standard Deviations for the application dimensions*

	Mean	Median	Mode	SD	Diff.	*t*	*df*	*p*
Social	3.52	3.86	4.42	1.070				
Changes in teaching	2.93	2.88	3.38	0.882	-.592	-7.503	124	<.001
Cognitive	2.89	3.00	3.00	0.797	-.623	-8.751	124	<.001
Personal	2.45	2.71	3.00	0.926	-1.070	-12.867	123	<.001
Knowledge building	2.31	2.40	2.50	0.720	-1.203	-18.596	123	<.001

The reliability of this set of items as a whole is strong (alpha = .957) and the distribution is skewed (figure 7 below).

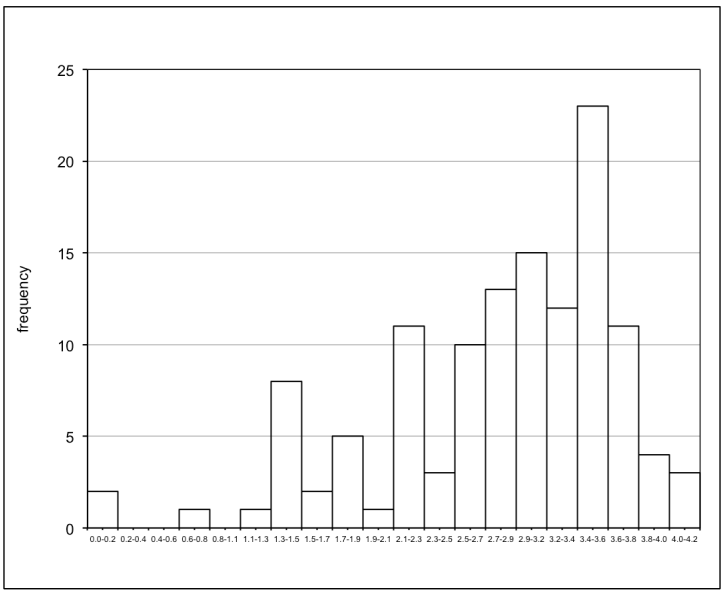


Figure 7. Histogram for the application domain mean scores. This figure depicts a combined score for survey items concerning respondents' characterization of their application of RA.

While there are no differences for key informants, those recruited by 3CSN, and the LCoP group on the broad application score, there are differences on the application of the individual dimensions. LCoP participants applied more of the cognitive dimension of the RA framework (t=2.057, *df*=73.378, *p*=0.047) and saw more changes in their teaching (t=2.356, *df*=77.454, *p*=0.021).

Results Question

In attempting to learn if participants were seeing any results from their application of RA in the classroom, the survey used one "results" question: "How much change in the quality of learning have you seen as a result of your application of RA?". Most participants reported some change (31%) or a lot of change (25.4%). Those who had not applied RA or left this question blank were removed from analyses involving results.

Table 23. *Change in learning as a result of applying RA*

Response	N	%
No Change (0)	3	2.4%

Slight Change (1)	16	12.7%
Some Change (2)	**39**	**31.0%**
A lot of Change (3)	32	25.4%
Significant Change (4)	16	12.7%
Beyond Expectation (5)	12	9.5%
I have not used RA in my classroom	5	4.0%
Blank	3	2.4%
Total	126	100.0%

Using this single item as an outcome indicator and coded as noted in parenthesis in the table above, analyses were conducted to test for differences between the subgroups (i.e., key informants, 3CSN recruited, and LCoP) on this outcome item. All three groupings reported significant differences from their counterparts. Key informants, 3CSN recruited, and LCoP participants reported seeing significantly more changes in the quality of learning in their students as a result of applying RA principles in their classrooms (see Table 24 below).

Table 24. *Outcome comparisons for each participant subgroup*

Grouping	Member	Mean	SD	*t*	*df*	*p*
Key Informants	Yes	3.571	1.397	23.156	117	<.0001
	No	2.603	1.216			
3CSN Recruited	Yes	2.739	1.255	16.363	117	<.0001
	No	2.433	1.194			
LCoP	Yes	3.026	1.386	20.518	117	<.0001
	No	2.481	1.130			

Domain Comparisons

The correlation matrix in Table 25 below shows that most knowledge, application, outcomes, and supportive environment means are positively correlated. The one exception is that supportive environment is not at all correlated with application of RA. This is a counterintuitive result because one might expect that a supportive environment would be positively correlated with one's application in the classroom. It could be interpreted that the classroom application is the domain of the individual teacher and one's support around

campus (i.e., other teachers doing RA and providing opportunities for discussing its application) are not necessarily important to these participants.

The other correlations are as expected. One would expect that knowledge of the RA content would positively correlate with application and application would positively correlate with positive results.

Table 25. *Pearson Correlation matrix with supportive environment, knowledge, and application scales, and outcome item*

	Supportive Environment	*Knowledge*	*Application*
Knowledge	***r*=.183**		
	***p*=.047**		
Application	*r*=.055	***r*=.639**	
	p=.555	***p*<.0001**	
Realized	***r*=.198**	***r*=.492**	***r*=.665**
	***p*=.032**	***p*<.0001**	***p*<.0001**

In a multiple regression model where all the potential predictor items (i.e., training, knowledge dimensions, application dimensions, supportive environment, recruited by 3CSN, LCoP attendees, key informants) were added at once and the single "Realized" outcome item was added as the variable to be explained, Application – Changes in Teaching accounted for the most amount of variance in the observed outcomes. That means that of all the possible explanations of the outcome variable, the application of RA to general changes in teaching explained much of the variance in outcomes.

Table 26. *Multiple regression with realized as outcome variable*

	Coefficient	Std. Error	t	Sig.
Intercept	-0.309	0.968	-0.319	0.750
Training	-0.059	0.070	-0.892	0.374
Supportive Environment	0.188	0.115	1.637	0.105
Application: Changes in Teaching	**0.613**	**0.166**	**3.699**	**<.001**
Application: Cognitive Dimension	0.025	0.199	0.125	0.901
Application: Knowledge building	0.125	0.208	0.601	0.549
Application: Personal	0.182	0.202	0.898	0.372
Application: Social	0.107	0.158	0.676	0.500
Knowledge: Framework	0.040	0.109	0.367	0.715
Knowledge: Routines	-0.074	0.132	-0.558	0.578
LCoP	-0.115	0.312	-0.369	0.713

Key Informant	0.460	0.402	1.144	0.255
3CSN Recruited	0.124	0.201	0.616	0.540

The *realized outcomes* item and the *changes in teaching* scale were pulled out and analyzed separately. Spearman's *rho* correlation analyses resulted in significant positive correlation (*rho*=.679, *p*<.001, n=115, 2-tailed). This means that the more participants changed their teaching as a result of their participation in RA, they also saw more outcomes in their students. The previous analysis shows that this correlation is a primary explanation of these outcome observations.

Findings

While survey participants are over-represented by LCoP members by more than 2x, there are more than twice as many participants who did not attend the LCoP, providing sufficient responses to compare these groups. As might have been expected, the study's key informants and the LCoP participants were significantly more trained than their counterparts. This training might inform the fact that non-LCoP participants were less informed about the RA framework.

For the participants in general, the social dimension dominated the application of RA in the classroom. But, LCoP participants applied more cognitive dimension and saw more changes in their teaching.

Key informants, 3CSN recruited, and LCoP participants all reported seeing significantly more changes in the quality of learning in their students as a result of applying RA principles in their classrooms. Of all the possible explanations of observed changes in student learning, the application of RA to general changes in teaching explained most of the variance in outcomes and is positively correlated with these outcome observations.

Limitations

There are two limitations regarding the survey and its results that should be considered. Though teachers reviewed this instrument, it was not pilot-tested to develop data to test the analyses and assumptions. Additionally, single item outcome measure does not allow much room for variance in any model predicting outcomes.

CHAPTER SIX

Introduction

The subject of this study, the Reading Apprenticeship Project (RAP), is a community of practice initiative of the system-supported professional learning organization California Community Colleges' Success Network (3CSN). In examining the qualitative data gathered from a set of RAP exemplars, this study utilized a tool for detecting patterns of value and usefulness the participants attributed to RAP in order to answer questions about the intervention's implementation, its relationship to disciplinary beliefs and behaviors, and its impact on performance. This inquiry tool, the Wenger, Trayner, & de Laat (2011) conceptual framework, helped the researcher understand the cascading impact of the professional learning taking place. Through the application of the conceptual frame, for example, indicators pointing to experiences where genuine knowledge acquisition took place in the community could be traced and then the story of this learning could be made visible enough to understand not just the value of the knowledge itself but the instructional changes necessary to enact the intervention. The framework made it possible to link specific activities and experiences to desired outcomes and understand more fully the complex interactions taking place within the professional learning process.

In forming the findings, the researcher relied primarily on the perceptions of a set of faculty practitioners who, as indicated by the survey results reported in chapter five, are representative of RA participants across the state. The fact that they are all women aligns with the survey sample as does the fact that they have taken part in multiple RA trainings from beginning to advanced levels. Of equal importance, they are not representative of

average community college faculty members in that they routinely participate in and facilitate professional development that is content and pedagogically specific, active and collaborative, and structured and ongoing. While a certain amount of professional development hours are required at the majority of California's community colleges, these hours have been designed around what is called the "flexible calendar." Faculty may and indeed do fulfill these hours in multiple ways, including attending conferences, participating in community and cultural events, and even by claiming time spent in contractually required committee meetings. The diffused approach to participating in professional development is compounded by the minimum requirements for teaching in community colleges. Unlike K-12 systems which require certification demonstrating pedagogical expertise, community colleges consider the possession of an advanced degree the one requirement to teach. Not only does this equate content expertise with teaching ability, it also reinforces the primacy given to individual autonomy in community college teaching (Levin, Kater, & Wagoner, 2006). In multiple ways, then, the key informants proved exceptional and were largely chosen to be studied on that basis. In this regard, they may be viewed as exemplars , who may motivate others to opt in to similar kinds of social learning-based professional development. For, if promising interventions such as RA are to be implemented at scale, a much larger and more typical group of faculty will need to be convinced that professional development of the ongoing, community-based, and intellectually rigorous kind described in this study is worth their time and effort. As a starting point to achieve this end, the study's findings will be discussed as a means for outlining the core principles necessary for the development of professional learning that makes a transformative difference in classrooms and across institutions.

Discussion

Study Participants' RAP Professional Development Experience Consistent with Literature

By and large the many studies on professional development emphasize the effectiveness of many of the same qualities or features; these include situated learning contexts (often referred to as authentic experiences), focus on content and how students learn the content, time intensive and ongoing vs. once and done, central emphasis on reflection/metacognition, and high amounts of collaboration (Ball & Cohen, 1999; Borko, 2004; Garet et al., 2001; Desimone et al., 2002; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Wayne et al., 2008; Desimone, 2009; Guskey & Yoon, 2009). As was demonstrated in the findings chapter, the study participants described their experiences in terms that mirror the literature on high impact professional development. They gave examples of valuable and authentic learning situated amongst themselves as well as in their classrooms. They demonstrated a commitment to focusing on disciplinary content and apprenticing students into learning the content through surfacing disciplinary thinking. They bore witness to how time intensive professional development through RAP equipped them to not only make changes in their own classrooms but to spearhead innovations both within and between colleges. They showed how a central emphasis on reflection and metacognition was not only important to enacting the RA Framework but inherent to their experience of networked community where most of their time was spent engaged in thinking deeply about their practice. And they illustrated repeatedly how much their multi-dimensional collaborations with each other led them to increased opportunities for

extending their professional identities and growing new student success initiatives as well as developing training to support those initiatives.

In using both the conceptual frameworks of value creation in learning and networks (Wenger, Trayner, & de Laat, 2011) and of key dimensions in classroom life (Schoenbach, Greenleaf, & Murphy, 2012) to examine the extent to which the study participants felt a professional development intervention had impacted their teaching and learning and in what ways, this study presented its findings through lenses that were developed to look with deliberate consistency at not just what exists but what could be. In other words, the many indicators of applied value gleaned from interviews with and observations of the study participants spoke not just to familiarity with Evidence and Interpretation Logs or Think Alouds but also to the aspirations of someone like Liana who wants to figure out a way to include giving credit to students for surfacing their modes of thinking and solving problems on all assignments and exams, not just in her science courses but everyone's. The multiple, successful ways in which Angela has attended to the personal and social dimensions of implementing the RA Framework in her ESL classroom, down to the physical layout of the class and the day-to-day routines, has given her the inspiration to attempt to replicate this kind of pedagogy across more than forty sections of college success courses serving more than 1,500 students. This resonates with the central reason the original proponents of community of practice theory, Lave and Wenger, gave for authoring their seminal work *Situated Learning: Legitimate Peripheral Participation* (1991): that they wanted to rescue apprenticeship from its vague use and to more clearly define it by tying apprenticeship to a specific framework called legitimate peripheral participation. In legitimate peripheral participation, beginning learners in a community of practice start at

outer, less engaged levels of participation, but in working in community with more experienced practitioners, as Liana and Angela have in RAP, they move towards increasing engagement, bringing their whole self, situated in a social and cultural context, to the enterprise. In this respect, the goals of a professional community of practice such as RAP are no different from the goals for students in the classroom as conceived through the RA Framework: giving the newcomer the knowledge and skills to move from the periphery to being more at the center and involved in the core processes and practices of either the professional learning or the classroom learning.

The findings associated with this study of a networked social learning initiative point to four core principles as being central to achieving high value in professional development contexts. Quality professional learning should:

- Mirror quality student learning
- Engender practitioner beliefs and behaviors centered on continuous improvement
- Maintain the networked capacity and reach to provide practitioners with just in time support
- Attend to the personal and social dimensions of practitioners

Quality Professional Learning Should Mirror Quality Student Learning

Most significantly, I think that multiple findings in the study suggest a core principle for developing high impact professional learning must be rooted in a mirroring between student learning and practitioner learning. By this, I am speaking to the fact that the important emotional and pedagogical support the study participants felt RAP gave them (finding one) would be equally important support to give students in the classroom. The

same goes for learning conducted in collaborative settings (finding two) and learning that enhances the ability to transfer knowledge to other contexts (finding three). To wit, *practitioners should be given authentic learning experiences in the same way as students, through ongoing, situated and contextualized experiences.* Without cultivating legitimate peripheral participation in professional learning, it is difficult to achieve the large-scale development of cognitively engaged and engaging classrooms that will provide students with the conceptual and foundational learning necessary to increase completion.

The study participants spoke consistently about how RAP was the first professional learning experience that actually expanded their teaching repertoire, giving them practical routines they could use to help students really read and think about texts with rigor and engagement. Equally compelling were their descriptions of how they did not think they would have been able to implement the routines without their experience of practicing with each other first. To use their terminology, RAP emphasized "making it real," by giving them the space and time to walk through the steps of facilitating the strategies, to give each other feedback, and to problem-solve stumbling blocks together. Furthermore, they appreciated the challenge and expectation of implementing the Framework to its fullest extent—often comparing it with other kinds of intricate work like surgery. And like surgeons, they saw reviewing each other's case histories as a routine part of improving practice. The study participants confirmed that the collective enterprise of the community of practice significantly increased their use of the instructional strategies (Desimone, et al., 2002; Garet et al., 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007)— mainly because it helped cultivate in them a tolerance for the iterative nature of learning, or as Kendall put it, a tolerance and resiliency in the wake of the "failure" that often accompanies new

learning. In this respect, the legitimate peripheral participation that is one of the hallmarks of communities of practice had in fact strengthened the group's willingness to develop collective responsibility for each other's growth and learning and gave them greater ownership over their own learning (Borko, 2004). Thus, I would argue that the learning experienced by the RAP exemplars matches the kind of learning we most want our students to acquire. And it would be exceedingly difficult for teachers to understand how to enact this kind of high impact situated learning and authentic engagement in the classroom without having experienced it firsthand. The study participants correlated the proportional growth in their confidence as practitioners with the amount of spent time in RAP, testifying to Wenger's (1998) conclusion that as the time and intensity of their participation in the community rises practitioners' conceptualization about who they are and what they feel capable of also transforms.

Quality Professional Learning Should Engender Practitioner Beliefs and Behaviors Centered on Continuous Improvement

As perhaps most famously noted by Grubb, et al. (1999), community college faculty often feel isolated and "invisible" in their practice, with departments viewed as little more than places to pick up mail and collegiality a term heard but rarely taking the form of actual professional exchange and engagement. In a more recent study, Grubb, et al. (2011) finds that community college faculty most typically experience professional learning as an individual activity so when they run into problems incorporating the intervention they are more likely to stop using it; this was true of the RA trained faculty Grubb's 2011 study chronicled as well, with all colleges abandoning their implementation of RA save one, the

exception being a college which provided ongoing institutional resources and support for a faculty RA inquiry group.

To address practitioner isolation and to move from a culture of siloed classrooms to collective community in support of continuous learning improvement, *practitioners should be schooled in habits of mind that encourage persistence, flexibility, reciprocity, and transparency*. The study's participants exemplified collectively calibrated teaching and learning dispositions, which helped them move forward in implementing RA in the face of obstacles; these dispositions were connected to both their understanding of the RA Framework and 3CSN's networked CoP model. As evidenced through findings four and five, the key informants felt that RAP had transformed their instructional practice mostly due to their mutually developed belief in the power of metacognitive conversation to cultivate and support a growth mindset in their classrooms and in their community. RA metacognitive routines such as Activating the Schema and Think Alouds helped them surface confusions and contradictions in their students' thinking processes and were also used by the practitioners themselves to demonstrate the disciplinary habits of mind they brought to the learning enterprise. At the same time, because they were opening up and creating safe spaces for students to surface their thinking collaboratively versus relying on lecturing, the key informants were also able to infuse their classroom with opportunities to problem-solve and discover new approaches to the material. By utilizing these routines in professional learning contexts and even during organizational meetings, the study participants found ways to encourage the same kinds of self-reflective, flexible, proactive, and open to change sensibilities they were engendering in students—the same kinds of qualities found to be prevalent in "enacting" change-agent organizations (Daft & Weick,

1984; Brown & Duguid, 1991). Both for students and educational institutions to succeed in persisting with and attaining their learning goals, good strategies coupled with tenacity, what Carnegie's Statway project terms "productive persistence" (Bryk, Gomez, & Grunow, 2010), must be cultivated and supported, and, as reported by the key informants, 3CSN's RAP gave them significant tools for acquiring and promoting this kind of growth mindset.

Quality Professional Learning Should Maintain the Networked Capacity and Reach to Provide Practitioners with Just in Time Support

For the most part, research studies that summarize features essential to effective professional development end up proscribing elements common to community of practice theory, but the experiences related by the study participants also pointed to the efficacy of a network framework. For them, the power of the extended network rested in its capacity to connect practitioners with resources and assistance to meet needs in a timely fashion and in ways that most suited the situation. This was best illustrated by Rory's example of the faculty member from the small rural college who was never going to become an RAP expert facilitator but through years of intermittent contact facilitated through her regional network was in fact growing and experiencing just in time deep learning. The network infrastructure allowed her and others to move in and out of conversations about any of the teaching and learning domains sponsored by 3CSN as desired or needed. The study participants also interestingly noted that even though the literature often emphasized the collective participation in CoPs at the local level (Desimone, et al., 2002; Garet et al., 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007), they found that the intra college membership supported through the state network infrastructure was actually more meaningful to their work. They repeatedly referred to the difficulty of "being a prophet in

your own land" and asserted that the network members from outside of their college were often who they needed to bring to their colleges to give legitimacy to their initiatives.

Wenger, Trayner, & de Laat (2011) in fact created their conceptual framework to account for the interdependency of networks and communities in creating value through professional development. They wanted to give practitioners a concrete means with which they could process the interplay between communities and networks and how these aspects of interactivity "braid" and mutually support individual and collective learning (p. 13). By positing community and network as dimensions of a social structure in which powerful learning can take place and by providing a tool with which to look at social learning indicators on multiple levels within multiple cycles, their conceptual framework captures the complexities of the professional development enterprise. Similarly, data from this study points to how 3CSN's *networked community of practice infrastructure helps practitioners understand and account for the cascading impact of professional learning*. It helps them make room for the duration and recursiveness of it—for even the most enthusiastic participants, just like students, want their learning to move faster than is often possible. With the mutual support of the communities of practice and regional networks all nested underneath 3CSN's umbrella statewide network, the study participants felt confident in locating extended opportunities to connect with and learn from other practitioners who had enacted high impact strategies that were indeed making a difference in student and institutional outcomes. And they also testified to the accumulating power of the learning as it took place over extended periods of time and in the multi-dimensionality of the community and network settings.

Quality Professional Learning Should Wholeheartedly Attend to the Social and Personal Dimensions of Practitioners

As evidenced in finding number seven which spoke to how much professional development in community helped reframe their curricular and institutional practices, the study participants ascribed transformations in their professional identities to their participation in RAP and the extended 3CSN learning networks. They used words like trust, empathy, love, sustaining, meaningful, competence, and passion to describe aspects of their experience. This was in remarkable keeping with how Wenger (1998) diagrams his social theory of learning, i.e. how social learning works. In the ways they spoke to how RAP returned them to the passionate love of their discipline, in how they felt the group gave each other space to try and even fail, in how they felt an accountability to each other and their larger professional community to make sure others were brought into the circle, they demonstrated a mutual and reciprocal attentiveness to nurturing and looking out for the well-being of the collective community, all aspects in line with Wenger's triad of learning, meaning, and identity (1998). In so many ways, too, the study participants' descriptions of transformations taking place around professional identity bear striking resemblance to Dewey's (1938) notion of "Wholeheartedness," something he says must be present in the very soul of an effective, reflective educator. It is a type of total professional engagement, and through it he believes educators focus the learning enterprise on the creation of meaning out of experience—something he equates with the very essence of what it is to be human.

Another feature cited in the literature as a hallmark of high impact professional development revolves around coherence, the idea that not only does the learning have to

cohere with other professional development experiences, but it even more importantly has to cohere with participants' knowledge and beliefs about school and learning (Ball & Cohen, 1999; Borko, 2004; Garet et al., 2001; Desimone et al., 2002; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Desimone, 2009; Guskey & Yoon, 2009). What this study shows is that the key informants have a strong belief in the personal and social dimensions of learning—not just because these are part of the RA Framework, but because these dimensions are powerfully and viscerally linked to what they see as the primary, humanistic promise and purpose of education. They believe their disciplinary subjects and their approach to teaching their subjects as well as the educational enterprise itself helps citizens make the world a more meaningful and meaning-driven place as well as a more equitable place. Through their integration of RA they believed they created environments where students feel it's safe to learn, safe to grapple with difficult texts, and they believed they created a space in which students feel their strengths and possibilities are recognized. Through this attentiveness to the personal and social contexts for learning, the study participants perceived they were transforming their practice in ways that increased student resiliency, persistence, and success. And they felt they had learned how to create these powerful learning environments by replicating the same trust, nurturance, belief, and safety RAP and 3CSN had built into their ongoing professional learning activities. Furthermore, they felt highly committed to extending this experience with their colleagues by infusing elements appealing to the personal and social dimensions into organizational meetings and professional trainings. This engaged reciprocity resonates with Wenger's social theory of learning in communities of practice (1998), RA's Framework, and Dewey's wholeheartedness, but it also very much resonates with what we know about the role

belonging plays in contributing to student persistence and success (Maslow, 1954; Maslow, 1968; Tinto, 1997; Tinto, 1998; Osterman, 2000). In the end, this study suggests, in the same way it has with aspects of situated learning, habits of mind, and just in time learning, that *cultivating belonging and trust should be central to the development of professional communities and networks because it mirrors much of what we understand about high impact learning in the first place*.

Recommendations for Advancing Practice and Policy

Based on the promise shown by the study's findings, 3CSN should consider developing their own toolkits to aid the creation of college level social learning experiences based on the 3CSN approach. The toolkits should detail the 3CSN networked community of practice model and demonstrate how the core principles that support effective, ongoing professional development are operationalized, making sure to give examples from value creation stories they've already collected across their initiatives. Additionally there should be a roadmap for colleges showing how they can link to the existing resources and activities of domain-specific, relevant communities of practice 3CSN sponsors as well as how to leverage their work through accessing technical assistance from across the extended network.

3CSN should prepare briefings for systems office and legislative staff to show how Reading Apprenticeship Project can assist in providing technical assistance and professional development to colleges as they respond to the new system-sponsored legislation associated with California Community Colleges' Student Success Initiative. For example, these briefings could detail how colleges could write into their new Student Equity Plans RA-based curriculum to provide the contextualized cognitive strategies

necessary to address achievement gaps across the disciplines. Or they could illustrate how making the RA Framework central to a college success course, which is what Angela, Catherine, Rory, and Vivienne did at Arroyo Hills College, can be used to meet new requirements for the matriculation program across California which bases its funding formula on how successful colleges are in supporting student persistence through the first year.

Limitations of the Study

There are several limitations to this study worth contemplating. First, the study centered on seven key informants who had been hand picked as Reading Apprenticeship exemplars to conduct an inquiry group project piloting, evaluating, and revising cognitive assessments developed by ETS, a prominent national testing organization. The selection process could be seen as a limitation due to any biases involved, including biases stemming from the fact that the RAP Coordinator selected the participants and was a participant in the inquiry group herself. While their demonstrated knowledge of RA and experience in RAP as well as their well-established relationships with each other and with RAP's sponsoring organization 3CSN were criteria not only taken into consideration while selecting the participants for both the ETS-related inquiry project and for this study, these same selection criteria may also have resulted in a group with a tendency to be less questioning of the value of their experience in the community of practice. And generally speaking, the study participants did have positive things to say about RAP, 3CSN, and about their experiences implementing RA strategies in their classroom.

In addition to the limitations of the questionnaire results already discussed in chapter five, the survey's results were also limited by the fact that a disproportionate

number of the respondents were very similar in the their level of training to the key informants, limiting the range of responses that might have been found if the sample were more diverse in terms of training experience. Certainly it must be taken into consideration that the survey cannot, despite its fairly typical response rate of 32%, claim to represent the complete range of attitudes about RA amongst faculty trained in California's community colleges in the past few years. The overrepresentation of extensively trained responders may have resulted in a more positive overall view of RA application in the classroom. Including additional RA participants across the state as well as a higher response rate on the survey could have yielded more divergent perceptions about the impact of RA and the participants' view of their professional development experience.

Although I constantly monitored for reactivity, my role as the Executive Director of 3CSN may be considered a limitation of the study. It is possible that participants told me what they thought I wanted to hear. The vetted observation protocol by Schoenbach, Greenleaf, & Murphy (2012) and the Wenger, Trayner, & de Laat (2011) value creation conceptual framework allowed for observations to be guided a set of criteria external to me and thus increased the likelihood reduced levels of participant reactivity would take place. The trust and familiarity the key informants had with me did seem to make them more comfortable, and from the start they answered questions at length and with no apparent self-consciousness.

Opportunities for Future Study

There are limited, if any, studies of RA implementation in community colleges that focus on students and their perceptions of the impact of the routines and instruction. A further examination of the correspondences between the processes of faculty professional

learning and the research associated with high impact approaches to student learning and a measuring of learning happening not just in students as a result of taking part in the intervention but in practitioners enacting the RA Framework would potentially lead to empirical evidence supporting the large-scale adoption of the RA Framework across California's community colleges. RA even has a thoughtfully worked out and vetted pre- and post- instrument called the Curriculum Embedded Reading Assessment or CERA which measures cognitive understanding as well as awareness of one's reading process. The CERA instrument could be used to systematically study changes in both faculty and student learning happening as a result of implementing RA. As a norm, RAP participants practice the routines with each other in training; to perform the intervention in the classroom, faculty members also collaboratively participate with the students. Thus, RA is uniquely positioned to test whether measurable increases in faculty learning result in advances in student learning.

The study's survey points to a relationship between knowledge of the framework and a practitioner's level of training as well as a relationship between changes to practice made as a result of RA and student improvement. A comparison study such as an RCT or a well designed quasi-experimental study would help determine whether or not there's a difference between practitioners who are part of RAP and have taken RA training versus those who have the training but are not members of the networked community of practice.

Reflection

It can and should be persuasively argued that genuine transformations in student outcomes, ones realized at scale, cannot be achieved as long as the siloed, individualistic teaching model seen in community colleges remains in primacy because this "effectively

precludes any possibility of improvement of instruction at scale…and makes it impossible to treat human skill and knowledge as the main instrument of improvement (Elmore, 2008, p. 50). We know from decades of research in K-12 that faculty who participate in highly supported and recursive professional communities of practice not only exhibit greater pedagogical expertise and commitment to innovative teaching, they hold themselves and their students to higher expectations resulting in increased student outcomes and enhanced job satisfaction (Talbert & McLaughlin, 2002). While we have not built permanent system-supported and system-connected spaces where this kind of professional learning would routinely occur, as this study has indicated, the statewide 3CSN professional learning project has made a start. 3CSN with its communities of practice, provides the support and structure for a robust intervention like Reading Apprenticeship to take hold, but 3CSN also provides the flexibility through its extended network to seed new approaches and innovations—as for every intervention leading to student success in one context there will be challenges in another.

In describing the balancing act of integrating RA into the classroom, Rory cautioned, "You can't just jump into the icy pool of metacognition." This vividly funny analogy captured, for me, the dilemmas involved not just in getting students to think about their thinking and learning with rigor and insight but also in getting faculty, staff, and administrators to think equally hard about how learning happens, why it happens, and how best to support its ongoing acquisition. Several findings in this study point to the important transformations that can take place if a teacher's practice is inherently changed through a coherent, ongoing, social-learning based professional development initiative. The most striking result in the survey, for example, showed how all of the respondents trained

through 3CSN's CoP-based approach, whether they were the study's key informants or LCoP participants, reported seeing significantly more changes in the quality of learning in their students as a result of applying RA principles in their classrooms. Similarly, when one looks at the qualitative findings for the key informants, one sees that there are data pointing to changes taking place in instructional practice, in programs and departments, and across and between institutions. Thus, even though it relies to a large extent on self-reporting, this study documents how a professional development intervention has brought improvements at multiple levels and echoes Elmore's (2006) conclusion that to improve student learning at community colleges we have to manage and encourage improvements, including significant changes in pedagogical practices, at individual, organizational, and system levels.

We need to be self-reflexive and question, search, reflect, and challenge our assumptions about how we learn, what we learn and to what purpose. And this is exactly what I think is at stake for professional learning initiatives in California's community colleges. Until we regard professional learning as genuine learning—as part of our ongoing learning enterprise—we will not see a scaling up of classrooms designed around those qualities that theory and research demonstrate have the most impact on learning outcomes.

APPENDIX A: Group and Individual Interview Protocols

Group Interview #1 Interview Protocol

- Please tell me about this inquiry group: How would you describe the group's purpose?

- How would you describe your experience working with this group? (sub-questions as needed).
    - What specific needs has this inquiry group been organized to meet? To what extent have these needs been met up to this point?
    - How would you describe your participation in this inquiry group? In what ways are you involved outside of the regular meetings?
    - What expectations do group members have of each other? What are "rules" for participating? What are some stories that make this group unique?
    - What are the most important things you've learned from working with this group?
    - How has your participation in the group changed your understanding of RA?
    - How has your participation in the group changed your understanding of teaching and learning?

- How would you describe your experiences with professional development, generally speaking? (sub-questions as needed).
    - What professional learning activities have you typically participated in? How often? Why?
    - How would you describe your learning experience?

- What have been your experiences with 3CSN? (sub-questions as needed).
    - Which specific 3CSN trainings and events have you participated in?
    - How would you describe your overall experience in 3CSN?
    - How do you think 3CSN is similar or different from previous professional development that you've participated in?
    - To what extent do 3CSN members work together? If conflicts exist, what are they and how are they managed?

- Describe your experience with Reading Apprenticeship and with 3CSN's Reading Apprenticeship Project? (sub-questions as needed)
    - Why did you decide to pursue professional learning in Reading Apprenticeship? How long have you been a member of RAP?
    - To what extent do you think RAP members share similar goals and values around teaching and learning? How would you describe these shared goals and values? How do they influence RAP activities?
    - To what extent do RAP members work together? If conflicts exist, what are they and how are they managed?

    - Can you describe a project you've seen RAP members take on together? How did it start and end?

- How does your participation in RAP compare with participation in other group settings? (sub-questions as needed).
    - In what ways has RAP has changed who you are as a …?
    - How does the experience within this smaller inquiry group, this subgroup of RAP, compare to your experiences with the larger group?
    - What other peer-to-peer exchanges have you participated in through RAP? To what extent have you found these exchanges valuable? What have you shared about your teaching during these RAP exchanges?
    - How have you shared elements of your practice with non-RAP colleagues since incorporating the RA framework into your teaching? What responses have you received from these colleagues?

- RA has existed for almost 20 years now. What would you say sustains it?

- What other groups do you belong to, including groups of coworkers, professional associations, or even church or community groups? How are you "different" depending on which group you're with?

Group Interview #2 Interview Protocol

- Present highlights of notes from the classroom observations for comparisons between what the interviewees said in the pre-observation interviews about the integration of RA into their practice and what the interviewer observed.
- Discuss the extent to which the routines and norms of RA have been integrated into the classroom and internalized by students.
- Present highlights of the documents/artifacts individuals shared with the interviewer. Ask the group to discuss ideas and feedback in regards to the artifact's content, design, efficacy, utilization, etc.
- What do you believe are the most important take-aways about the learning happening in each others classrooms based on hearing about the interviewer's classroom observations and looking at your colleague's documents/artifacts?
    - To what extent can these take-aways help solve issues surrounding student completion in basic skills sequences? In general education coursework?
- What kinds of support can this group give to you to sustain your integration of RA in an ongoing, meaningful way?
- What other kinds of support do you need and from who (at the college, regional, or state level) to sustain your integration of RA in an ongoing, meaningful way?
    - How much support do you feel you currently have for your RA integration and from whom do you receive this support?

- What plans do you have to continue to participate in professional development activities, including knowledge-exchanges, involving RAP? How or will you involve others? Who specifically?
- What of your teaching behaviors, attitudes, and skills do you believe have been most improved as a result of RAP participation? What still needs work?
- What of your behaviors, attitudes, and skills as a community college professional do you believe have been most improved as a result of RAP participation? What still needs work?

Individual Interview Protocol

- Please state your name, college(s) where you teach, discipline, typical course load (including number and name of courses typically teach), number of years spent teaching.
- How do you use Reading Apprenticeship (RA) in the classroom?
- How often do you use it?
- How do you use RA outside of the classroom?
- Describe the ways in which meta-cognitive conversations take place in your courses—include examples from class sessions as well as through out-of-class assignments and activities.
- What, if anything, has RA improved in your practice? What still needs work?
- What, if anything, have you learned about teaching your discipline by using the RA Framework?
- Describe any changes in the attitudes and behaviors students exhibit during class time since you've incorporated RA. What has improved? What still needs work?
- To what extent do you believe students are performing better or worse as a result of your integration of the RA Framework in your classes? How do you know?
- Have the interviewee introduce the documents/artifacts she has brought and describe why she chose these in particular to share; note how relationships between RA and the artifact's content, design, efficacy, utilization, etc., are described.
- Present highlights of notes from the group observation and interview. Ask for any clarifications or further observations about the meaning and impact of participating in a community of practice context.

APPENDIX B: Observation Protocols

Group Observation Protocol

Site:
Date of Observation:
Time of Observation:
Date of Write-Up:
Observer/Recorder:

Abstract:

Chronology of Events:

Impressions:

Links to the three primary indicators of a community of practice: (1) joint enterprise, (2) mutual engagement, and (3) product/capacity/shared repertoire[8]:

Classroom Observation Protocol
Based on SLI (Strategic Literacy Initiative) Reading for Understanding Observation and Analytic Protocol

Instructor:	Course Days/Times:
Course:	College:
Observation Date:	Start Time: _____ End Time:_____
Number of Students in Class:	Males: _____ Females: _____
Race/Ethnic Composition of Class:	

Note:
- Be sure to collect all instructional material used or referenced in this lesson, including copies of all texts, handouts, task directions, etc.
- Arrange to review (during follow-up interview with the instructor) a sample of student work produced during the lesson

[8] Mostly from Wenger, *Communities of Practice*, pages 125-126.

I. The Physical Environment

On a separate document, draw and describe the physical environment of this classroom. Include details of seating, what is on the walls, and location of classroom resources such as white boards, computers, books, etc.

II. Narrative Description of Lesson

1. Field Notes

Take field notes describing all activities and interactions with as much detail as possible to capture the teaching and learning in this lesson. Your notes should indicate who is speaking (e.g., instructor, student, etc.). Try to use numbers to differentiate students, e.g., S1, S2, etc. Be sure to:

- Insert time codes about every two minutes or more often if there is something worth noting.
- Insert time codes whenever there is a shift in activity, roles or responsibilities, or grouping structure. This is often signaled by teacher instructions.
- Indicate when there is good dialogue happening that would be important to transcribe and note why.

2. Quick Impressions

Below, describe what stood out for you about this lesson from the standpoint of evidence-based argumentation, disciplinary learning, use of texts, student engagement or the like.

III. Moving from Description to Initial Interpretation

The **initial** interpretation should identify and index observations that might potentially inform the design of SLIs evidence-based argumentation instruction modules (E-B AIMs) in each discipline. The E-B AIMs deal with three key aspects of a teaching/learning situation: the texts, the classroom activities, and the classroom culture. What we mean by text, classroom activities, and classroom culture is discussed in the following sections. Disciplinary practices and content should be described under the relevant text, activities, or culture category. Teacher-student interactions, including classroom dialogue and participation structures, are of great interest but there is no separate category for these because they should be considered in the context of text, classroom activities, and classroom culture. For each key aspect there are a set of guiding questions. These are not meant to be answered one at a time but to guide your thinking and initial interpretation. Note that any one lesson may provide evidence for only a subset of aspects of the design of the E-B AIMs.

In your initial interpretations you should refer to portions of the lesson and field notes (using time codes) to support your interpretation. Indicate when you are drawing on

information from the interview or examination of the materials instead of from observation. You might have conjectures, hypotheses, or questions about things you observed. Use italics for indicating this kind of information.

I. Texts

The focus here is on the types of texts within the discipline, their function, and the supports provided by the instructor. The term "text" is used broadly and refers to both traditional, as well as electronic texts, visual or verbal modes, oral or printed. Texts include cartoons, scripts, videos, and orally presented material.

Guiding Questions:

- What types of texts were in evidence? Were other texts mentioned/discussed that students previously read or knew about? What were these texts and how were they brought into the lesson?
- Did the teacher provide modeling and support for student talk and collaborative meaning-making for texts read during the lesson? If so, how?
- Were students supported to read and understand single and/or different genres within the discipline? If so, how?
- Were multiple texts in evidence during the lesson? Is so, how were the texts introduced to students, and used? What was the sequence of texts? Did the type and sequence of texts appear to support student engagement and learning in discipline-specific ways? If so, how and why; if not why not?
- Did students draw on multiple text sources to engage in disciplinary argumentation practices? Did the instructor model or provide support for engagement in these practices? If so, how? Did the instructor provide support and opportunities for student talk and collaborative meaning-making with texts? If so, how?

Remember to index your initial interpretations to the field notes using time codes.

II. Classroom Activities

The focus here is on the nature, quality, and purpose of the activities within the discipline along with the types of supports provided by the teacher.

Guiding Questions:

- What was the task, what was its function or purpose, how and when was it introduced? Was there more than one task? If so, what were the features of each task? How were the different tasks related to one another, if at all?

- Did the task support development of evidence-based argumentation or some aspect of it in the discipline? If so, how? Did the task support disciplinary vocabulary, concepts and principles? If so, how?
- What kinds of thinking and analytic practices of the discipline did the task call forth? Did the teacher provide task support and/or problem-solving strategies specific to the discipline? If so, how?
- Did the task engage students in oral and written communication practices of the discipline? If so, how?

Remember to index your initial interpretations to the field notes using time codes.

III. Classroom Culture

The focus here is on the nature and purpose of the participation structures and routines within the discipline as well as the general classroom climate and norms.

Guiding Questions:

- What were the participation structures?
- How, if at all, did the participation structures and discourse routines
  - contribute to high levels of disciplinary competency through student engagement, risk-taking, and effort? If so, how?
  - help students to access and build on both general and discipline-specific prior knowledge and skills? If so, how?
  - help students learn the ways in which evidence based argumentation is created, communicated, and evaluated within that discipline? If so, how?
  - help students engage in the academic discourse of the discipline, in both oral and written modes? If so, how?
  - promote student initiative, participation and engagement?

Remember to index your initial interpretations to the field notes using time codes.

APPENDIX C: Reading Apprenticeship Glossary

Note: entries derived from Schoenbach, Greenleaf, & Murphy (2012)

Activating the Schema

Schema is prior knowledge, based on a lifetime of reading and experience, related to specific disciplines. Schemas can be drawn upon, added to daily, and revised as learning occurs. To activate the schema is to pull up previous knowledge a student already has from other readings, discussions, and experiences about a subject.

Curriculum Embedded Reading Assessments (CERAs)

This curriculum-embedded reading assessment is designed as a beginning and end of the year assessment of students' subject area reading. The 20-minute assessment is built around an everyday classroom reading experience and provides a rich picture of students' ability to make sense of text and their awareness of their reading processes. Students read a short text and respond in writing to a series of prompts about the piece and about their reading processes.

Class Norms

This is a strategy designed for the beginning of a semester for creating a safe, collaborative environment for learning. As a group, students list a set of agreements so that everyone can invest in learning. Students list expectations that they have for the classroom. That list is recorded in a collaborative document and shared with the whole group. These expectations or norms can be added to or revised over the course of the semester.

Evidence Interpretation Logs (sometimes referred to as Double Entry Journals or DEJs)

Metacognitive logs provide a place for students to think and write about their own reading process with extended assignments, such as textbook chapters, whole books, the

texts for a course project, or for other media such as videos, math problems, observations in a science lab. The Evidence/Interpretation Notetaker is one kind of Metacognitive log. Students split a page of notes down the middle. On one side of the page, students log relevant quotes from the text. On the other side of the page, students log thoughts, interpretations, feelings, and questions that are related to that quote.

Final Word

This is a discussion format in which each person in the group is given an opportunity to have his or her ideas, understandings, and perspectives enhanced by hearing from others. A group explores an article, clarifies thinking, and has assumptions and beliefs questioned in order to gain a deeper understanding of the issue. Participants select one “most significant” idea from the text. They then sit in a circle and takes turns describing this idea for three minutes. After each participant shares, each other participant takes one minute to respond to that quote.

Gallery Walks

This is a classroom activity where individual students or groups of students rotate around the room looking and commenting on pieces of student work. It is called a "gallery walk" because of the similarity between this activity and walking around an art gallery and evaluating pieces of art.

Jigsaw

Teaching strategy where a large chunk of content is divided into smaller sections for student groups to learn. Each group masters their own section and prepares a lesson to teach to the whole group. The "jigsaw" is assembled when each small group comes together to teach the whole group their segment.

Talking to the Text

This routine is similar to a "Think Aloud" because it is a reading process analysis, and it is done while reading a text. Most importantly, Talking to the Text (TttT) is first completed individually or as a private reading experience. Readers are asked to mark their texts so that they have a means of revisiting their thinking. Also readers have time to process their text, reread for comprehension, make detailed annotations on the text, question the material, and draw inferences and conclusions, which take time to derive.

Think Alouds

Think-Alouds ask readers to verbalize their thinking as they read. Readers interrupt their reading to talk or think out loud about the text, visualize the text, make connections, sort through puzzlements, make predictions, and ask questions about the text.

Think, (Write), Pair, Share

In this routine, participants begin by silently reflecting on a concept or reading passage. They then pair up discuss the concept with a partner, listening and further reflecting on the text. They then share thoughts on the text as a whole group. This routine supports metacognitive conversation as readers learn about the reading processes of others.

Metacognitive Bookmark

A method for keeping track of the common kinds of thinking processes the teacher will be demonstrating. When teachers first model metacognitive conversation with a Think Aloud, many give students a bookmark for keeping track of the common kinds of thinking processes the teacher will be demonstrating. Students can use this same bookmark as a scaffold for their own metacognitive conversations when practicing with a partner. As a

scaffold, its use should fade as students become more comfortable with metacognitive conversation routines.

Personal Reading History

This is a routine that provides an opportunity to explore one's own reading processes and experiences. Participants are prompted to think about their evolution as readers. They are asked to think about not just in their earliest days, but through high school, college, post-college, and the present. They are then prompted to reflect on what supported them in their literacy development, what barriers they faced during various stages as a reader, and the times they felt like an "insider" and an "outsider" when reading. Once participants have these repeated opportunities to look more closely at their reading processes and the influences on their own varied relationships with reading and to share these with others, they find they have many more resources at their disposal.

Reading Strategies List

A Reading Strategies List is a group-generated compilation of strategies that readers identify as part of their process in working through comprehending a text. Prompts that help readers identify their strategies can be open-ended, such as, "What did you do to make sense of this text," "Where did you encounter challenges," and "What did you do to help with these challenges?" As participants offer their responses to these open-ended questions, skillful teachers can probe further with follow-up questions that help deepen understanding of the diverse kinds of thinking/reading processes. Samples of effective probing questions on participants' reading processes include, "Where in the text did you use that strategy?" and "How did it help you?" Through these probing questions, Reading Strategies Lists can reflect more nuanced kinds of reading processes.

This list helps provide a common classroom language for discussing how to approach various texts as it captures the reading processes of a classroom. These lists should be posted in the classroom; students will refer to these strategy lists when their texts demand more academic and varied reading skills. Rather than a static list of recommended strategies, a Reading Strategies List is a living document coming out of specific reading experiences that all members of a class community can add to over time.

APPENDIX D: Rubrics

Note: as utilized by study participants and based on concepts from Reading Apprenticeship

A GUIDE for Assessing a College Student's Reading Development

Student: _____*Class*: _____ *Date*: _____

	Beginning	Basic	Developing	Internalizing
Metacognition: Awareness and articulation of thinking process; mental engagement	No or very few comments or marks on the text Not yet able to articulate an awareness of own thinking process beyond responses indicating lack of engagement with the task, such as "My mind is wandering" or "I'm sleepy May not be aware of confusion or may express general confusion and frustration	Few comments or marks on the text, or "Giving up" comments such as "This is too hard"; questions that could apply to any text Awareness of thinking process is very surface, as though student is repeating things he or she has heard others report Expresses general confusion but reads on	Comments or marks on the text indicate engagement, that the students is trying to "figure it out" Able to describe own thinking/problem solving process Aware of points at which confusion occurs	Substantial, thoughtful comments or marks on the text Able to monitor own thinking/problem solving process Aware of where confusion occurs and persists in attempting to solve the problem Makes personal connections to build schema and make links with the text world
Repertoire of Strategies: Strategy use; range and appropriateness of strategies (to reading problem being solved)	Little or no evidence of interacting with the text beyond identifying "hard" vocabulary Not yet able to identify strategies that could aid in comprehension No strategy use or use is limited to a single strategy that may not be the most useful in the context	Repertoire of strategies that could aid comprehension is limited, or Some strategy use but student appears to be trying strategies that he or she has heard about, whether or not they are useful in the context; may indicate only that she or he rereads Interaction with the text is formulaic—i.e.,	Evidence of interacting with the text, but not always with a clear sense of purpose or ownership Some strategy use, though the student may be relying on common strategies such as rereading or reading aloud to focus May name comprehension strategies but not always aware of how and when to use them	Interaction with the text guided by internalized sense of reading purpose Flexible and purposeful use of a range of strategies (visualizing, predicting, questioning, clarifying, paraphrasing, connecting, offering counter-examples, inferring, etc.) to support comprehension Strategic use of strategies to solve

		annotations could apply to any text	strategically to build comprehension; still developing strategies that are a good match for the reading difficulties encountered or for supporting comprehension	reading problems
Use of Text Form, Structure, and Schema: Understanding and use of conventional forms of text discourse structure and structural features of text to make meaning; use of text schema knowledge (such as what boldface means or what transitions are signaling) to comprehend meaning	Little or no recognition of conventional forms of discourse beyond narrative; may call articles, essays, etc., "stories." Little or no evidence of awareness of structural features of text (for example, may not realize how paragraphs are organized) Little or no evidence student knows or notices various text features, such as apostrophe for possession, quotation marks for titles of shorter works, etc. Miscues hinder comprehension	Names some general forms of discourse; can distinguish, for example, between narrative and exposition Limited use of structural features to build comprehension Evidence that student recognizes some text features but still very basically and not to the level needed to fully support comprehension	Notices general forms of discourse, such as narrative, exposition, and argument, and is able to develop reading expectations for various forms of discourse Some understanding of need for schema and prior knowledge Some awareness of structural features and forms of discourse, such as typical locations of thesis and topic sentences in arguments; may still be using these features superficially to build comprehension Evidence student recognizes text features; may still	Aware of refined and elaborated categories of discourse/forms of text (e.g., memoir, argument, editorial, op ed, academic) Uses knowledge of text structure and discourse to anticipate content and build schema Uses text form and/or structure to guide the reading process Uses knowledge of discourse and/or structure of text to build an interpretation Recognizes text features and is able to notice miscues and apply fix-ups

			be thrown off by miscues	
Comprehension: Understanding the important ideas in the text	Little or no evidence of comprehension of important ideas in the text May focus on details that are not central to the meaning of the whole	Looks for the main ideas of the text, though doesn't always successfully find them Demonstrates a literal understanding of some sections of the text May notice some key passages or phrases but may not yet see how they connect to the whole	Makes an effort to restate the main ideas in own words Demonstrates a literal understanding of the text Able to make some inferences Able to make some connections between ideas in the text Able to identify key passages and phrases and use them to build an interpretation	Distills meaning (with gist statements, paraphrases, summaries) Identifies significant passages or phrases that contribute to the key ideas Builds an interpretation based on textual evidence Synthesizes ideas into some larger meaning

Rubric for Double Entry Journal

	Accomplished	Proficient	Novice	Points
Range of Quotes	The quotes selected in the left column represent the full range of ideas in the chapter. 5 pts	The quotes selected in the left column represent at least 2 ideas in the chapter. 3 pts	The quotes selected in the left column represent 1 idea in the chapter. 1 pts	
Response to Reading	The right column contains responses for each quotation that clearly show thoughtful reading and reflection. 5 pts	The right column contains responses for some quotations that show thoughtful reading and reflection. 3 pts	The right column contains undeveloped responses. 1 pts	

Rubric for Reading Response Journals

Summary	Includes all major events, characters, and important information about setting (place and time). 4 pts	Includes most major events, characters, and important information about setting (place and time). 3 pts	Includes some major events, characters, and important information about setting (place and time). 2 pts	Includes few of the major events, characters, and important information about setting (place and time). 1 pts	No Marks 0 pts	4 pts
Your Response	Includes a thoughtful, well-developed response to the reading, including opinions and reactions. A full paragraph in length. 4 pts	Includes a developed response to the reading, including opinions and reactions. A full paragraph in length. 3 pts	Includes a response to the reading, including opinions and reactions. Less than a full paragraph in length. 2 pts	Includes a very limited response to the reading. Significantly less than a full paragraph in length. 1 pts	No Marks 0 pts	4 pts
Discussion Questions	Includes 2 open-ended questions that could lead to an interesting conversation about the reading. 4 pts	Includes 1 open-ended questions that could lead to an interesting conversation about the reading. 3 pts	Includes 2 questions about the reading. 2 pts	Includes 1 question about the reading. 1 pts	No Marks 0 pts	4 pts
Reading Process	Includes an in-depth, detailed explanation of your reading process, including connections to other parts of the book, points of confusion or challenge, use of strategies and connections for understanding meaning and vocabulary, and strategies for managing distractions and motivation. 4 pts	Includes an explanation of your reading process, including connections to other parts of the book, points of confusion or challenge, use of strategies and connections for understanding meaning and vocabulary, and strategies for managing distractions and motivation. 3 pts	Includes an explanation of your reading process, including some of the following: connections to other parts of the book, points of confusion or challenge, use of strategies and connections for understanding meaning and vocabulary, and strategies for managing distractions and motivation. 2 pts	Includes a very limited explanation of your reading process, including one of the following: connections to other parts of the book, points of confusion or challenge, use of strategies and connections for understanding meaning and vocabulary, and strategies for managing distractions and motivation. 1 pts	No Marks 0 pts	4 pts
Good Words	Includes at least 3 words with a definition and a thoughtful explanation why each word was chosen. 4 pts	Includes at least 3 words with a definition and an explanation why each word was chosen. 3 pts	Includes at least 3 words with a definition. 2 pts	Includes fewer than 3 words OR is missing definitions. 1 pts	No Marks 0 pts	4 pts
Total Points: 20						

APPENDIX E: Survey Protocol

READING APPRENTICESHIP (RA) FACULTY SURVEY

Training

1. In the last 2 years, what SLI trainings have you attended? (check all that apply)
    a. 3-day
    b. Online RA 101
    c. Online Campus Coach
    d. Winter Institute
    e. Leadership Community of Practice (LCoP)
    f. STEM Seminar

2. What was the last RA training you attended?
    a. 3-day
    b. Online RA 101
    c. Online Campus Coach
    d. Winter Institute
    e. Leadership Community of Practice (LCoP)
    f. STEM Seminar

3. How long ago was that training?
    a. Within the last week
    b. Within the last month
    c. Within the last 6 months
    d. 6 months – 1 year
    e. 1-2 years
    f. 2-3 years

4. Have you attended any other RA-related workshops? If Y, how many?

Campus Support for RA

5. My campus environment is supportive RA.

1-Strongly Disagree	2	3	(4) Neutral	5	6	7-Strongly Agree

6. There are RA-related professional development opportunities at my campus.

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

7. I interact with other teachers at my school who are involved in RA.

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

8. If yes- We exchange experiences of how we implement RA in the classroom.

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

Knowledge Of RA

9. How familiar are you with these routines?

	1-Not at all familiar	2	3	4	5	6	7-Very familiar
Think Alouds							
Talking to the Text							
Metacognitive Log (Double-Entry Journal)							
Think Pair Write Share							

10. How confident are you that you could implement these routines:

	1-Not at all confident	2	3	4	5	6	7-Very confident
Think Alouds							
Talking to the Text							
Metacognitive Log (Double-Entry Journal)							
Think Pair Write Share							

11. How familiar are you with the Reading Apprenticeship Framework?

1-Not at all familiar	2	3	4	5	6	7-Very familiar

12. How confident are you in your understanding of these domains?

	1-Not at all confident	2	3	4	5	6	7-Very confident
Social							
Cognitive							
Personal							
Knowledge-Building							

Application in classroom

13. How much has your reading apprenticeship experience changed your teaching?

1-Did not change	2	3	4	5	6	7-Significantly changed

14. How often do you use these routines in your classroom:

	Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)
Think Alouds					
Talking to the Text					
Metacognitive Log (Double-Entry Journal)					
Think Pair Write Share					

15. How confident do you feel in differentiating instruction?

1-Not at all confident	2	3	4	5	6	7-Very confident

16. How often do you set literacy goals for your students (in addition to content goals)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

17. Equity is an important part of my pedagogical choices?

1-Strongly Disagree	2	3	(4) Neutral	5	6	7-Strongly Agree

18. How much effort do you put into creating safety for students to explore reading in your classroom (e.g., discussing what makes it safe or unsafe for students to ask questions or show their confusion)?

1-No effort	2	3	4	5	6	7-A lot of effort

19. How much effort do you put into investigating the relationship between literacy and power (e.g., talking about people in our society who read and who do not read and how it affects their lives)?

1-No effort	2	3	4	5	6	7-A lot of effort

20. How much effort do you put into sharing your reading experiences and thoughts about reading?

1-No effort	2	3	4	5	6	7-A lot of effort

21. How often do you talk in your classroom about what is confusing in texts?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

22. How often do you talk in your classroom about how teachers and students deal with comprehension problems?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

23. How often do you have whole- and small-group problem-solving discussions to make sense of difficult texts in your classroom?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

24. How often do you provide opportunities in your classroom to identify and help students try out others' ways of reading?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

25. How often do you discuss students' reading experiences in your classroom (e.g., habits, likes, dislikes, reasons for reading, goals for reading)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

26. How often do you spend time developing student metacognition in your classroom (e.g., noticing what is happening in their mind, identifying thinking processes)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

27. How often do you spend time developing reader fluency and stamina in your classroom (e.g., noticing and celebrating progress for developing readers)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

28. How often do you spend time developing reader confidence and range in your classroom (e.g., noting success in other types of texts and applying them to your discipline's reading)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

i.

29. How often do you encourage students to see their reading from the larger perspective (e.g., skimming and scanning, read through confusion or read ahead to clear up confusion)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

30. How often do you encourage students to break a text down into easily comprehensible chunks?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

31. How often do you encourage students to monitor their own comprehension?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

32. How often do you encourage students to use problem-solving strategies when comprehension stalls (e.g., "talk" to the text through marginal annotations, visualize what is described, make meaningful connections between the text and one's own knowledge)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

33. How often do you encourage students to identify the purposes of their reading and adjust how they read in response?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

34. Do you provide your students with text sets?

ii. Yes

iii. No

35. How often do you focus on discussing schemas and how they can be triggered by a text?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

36. How often do you attach your course content to application in the real world?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

37. How often do you help students understand a text before reading it (e.g., discuss its structure, build a schema for it, identify patterns across texts)?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

38. How often do you teach language by using your discipline's writings?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

39. How often do you clarify how your discipline uses language and how it might differ from other uses of language?

Never (0)	Rarely (1)	Occasionally (2)	Often (3)	All the time (4)

Realized

40. How much change in the quality of learning have you seen as a result of your application of RA?
    i. No Change
    ii. Slight Change (e.g., small gains in deeper learning)
    iii. Some Change (e.g., moderate gains in deeper learning)
    iv. A lot of Change (e.g., students are consistently learning at a deeper level)
    v. Significant Change (e.g., students' learning is as deep as I would want)
    vi. Beyond Expectation
    vii. I have not used RA in my classroom to affect change

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