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IN THEIR OWN WORDS:
TEACHERS MAKE MEANING OF PARTICIPATION
IN A COMMUNITY OF PRACTICE

A DISSERTATION

Submitted to the Faculty of
Montclair State University in partial fulfillment
of the requirements
for the degree of Doctor of Philosophy

by

LAURA LEE RIPLEY

Montclair State University

Upper Montclair, NJ

2017

Dissertation Chair: Emily Klein, Ph.D.

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MONTCLAIR STATE UNIVERSITY
THE GRADUATE SCHOOL
DISSERTATION APPROVAL

We hereby approve the Dissertation

IN THEIR OWN WORDS:

TEACHERS MAKE MEANING OF PARTICIPATION IN A COMMUNITY OF
PRACTICE

of

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Doctor of Philosophy

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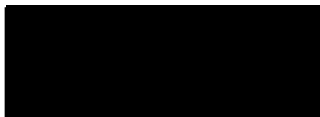
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ABSTRACT

IN THEIR OWN WORDS: TEACHERS MAKE MEANING OF PARTICIPATION IN A COMMUNITY OF PRACTICE

by Laura Lee Ripley

Recent studies on effective professional development in schools have paid attention to the concept of learning done in professional communities, but ignore teacher recommendations and voices. This case study focused on the meaning teachers made from participation in a community of practice in a school implementing reforms.

Founded in Wenger and Lave's concept of the community of practice, defined as groups of people who come together routinely and who learn to do things better as a result, this study follows a community of practice in the face of a significant school reform where very little other professional development had been done to prepare teachers for the change. Using focus group sessions and one-on-one interviews, I gathered information from the teachers themselves in order to discover what meaning they made from the experience, what changes in practice the group precipitated, and what qualities of the community of practice helped foster those changes.

Findings from this study include:

1. Teachers appreciated the safe space afforded by the community, as well as the collegiality and congeniality the group fostered.
2. Teachers found motivation for professional growth fostered by the community.
3. Teachers valued the relevance to practice and immediate applicability of the learning that the meetings centered on.

4. Teachers welcomed the freedom that the open-agenda approach gave them in designing their own learning experiences.

Implications include the need for administrators and policy makers to end the mandates requiring teachers to join learning communities, and instead to foster the conditions and learning environments in schools that encourage teachers to create these unique experiences for themselves.

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DEDICATION

To those who have my heart:

Nick, Liam, and Trav

“...but most of all, thank you for each other.”

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In Their Own Words: Teachers Make Meaning of Participation in a Community of
Practice

Chapter One: Introduction

The Evolution of Professional Development and the Focus on Teaching

With the publication of *A Nation at Risk* (1983), which called for improving America's educational system under threat of economic peril, new initiatives and reforms began to appear more regularly than ever before – many calling for stricter standards and systems of measurement for both students and teachers (Lieberman & Miller, 2004). Two landmark studies, a 1996 report by the National Commission on Teaching and America's Future and a 1999 meta-study on teacher quality and student achievement, focused not on curriculum, but on teachers – and high-quality teaching. In 1996, the National Commission on Teaching and America's Future published *What Matters Most: Teaching and America's Future*, labeling their report “the single most important strategy for achieving America's educational goals: A blueprint for recruiting, preparing, and supporting excellent teachers in all of America's schools” (p. 3). The ultimate goal of the commission was to create the strategy to provide “every student in America with what should be his or her educational birthright: access to competent, caring, qualified teaching in schools organized for success” (p. 10). According to the commission, the sobering finding was that teachers in the workforce today were prepared in programs that “did not envision the kinds of challenges schools now confront and did not have access to the knowledge about teaching and learning available today” (p. 5). In short, the world changed faster than their professional development did, and in not knowing how to reach

students or develop in them the most critical skills needed in this new world, the education system was suffering. If something were not done meet these challenges, the commission warned, America's schools could only be guaranteed greater failure (p. 5). As a result, the committee named as one of the essential six turning points in education that "all teachers...have access to high-quality professional development and regular time for collegial work and planning" (p. 63). Thus, 20 years ago, the need for collaborative work among teachers and "high-quality" professional development was put at the forefront of our educational agenda.

Three years after *What Matters Most* was published, the 1999 meta-study, *Teacher Quality and Student Achievement: A Review of State Policy Evidence*, found that teacher quality variables were more strongly related to student achievement than many other factors, including class size, spending, and student demographic characteristics (Darling-Hammond, 1999, p. 38). Further, it echoed the importance of professional development as key to overall improvement in education, for according to the report, "several recent studies found that higher levels of student achievement are associated with mathematics teachers' opportunities to participate in sustained professional development grounded in content-specific pedagogy linked to the new curriculum they are learning to teach" (p. 6). Citing numerous states' data reports regarding the difference that strong professional development programs made as part of their plans to systemically improve their educational systems, the commission made it clear that professional development matters, both in duration and kind. Like the 1996 report, professional development mattered.

Since then, researchers and commissions have echoed those findings. In fact, one of the seven key components of the 2001 No Child Left Behind Act, “Improving Teacher Quality,” calls it a “basic principle” that “teacher excellence is vital to achieving improvement in student achievement” (p. 15). How that excellence is achieved is then outlined in the act, and among the first initiatives are two provisions for high-quality, innovative, and effective professional development. Most recently, the Blueprint for R.E.S.P.E.C.T (2013), a reform initiative issued by the Obama administration, claims that:

[S]trong teachers can boost students’ academic achievement, improve their attitudes about school and themselves, and increase their ability to learn. Highly effective teachers accelerate student learning, close achievement gaps that have persisted for decades, and build habits of mind that change the trajectories of students’ lives, resulting in lower dropout rates, lower rates of teen pregnancy, and greater lifetime earnings and career satisfaction. (p. 1)

More recent studies have only served to echo and reinforce the findings of Darling-Hammond’s meta-study and the commission’s report. According to Hanushek (2010), “literally hundreds of research studies have focused on the importance of teachers for student achievement” and one of the key findings to emerge from these studies is that “teachers are very important; no other measured aspect of schools is nearly as important in determining student achievement” (p. 3). In order to ensure, then, the presence of excellent teachers in every American classroom, one of the seven critical components originally put forth in the reform literature, “continuous growth and professional

development,” remains critical today (*What Matters Most*, 1996, p.6). Calling effective professional development “a critical lever of improvement” sums up what we’ve known for decades: to improve education, we must improve the professional development of our teachers.

The question that still remains, though, is “How?” How is the professional development of teachers best carried out to better foster improvements in teacher quality? As of now, it falls far short.

In a disheartening 2015 study by The New Teacher Project (TNTP) on teacher professional development, researchers conducted a comprehensive study of over 10,000 teachers in varying school settings in an attempt to find a link between professional development efforts and teacher improvement. Their research aimed to uncover what facets of professional development were instrumental in improving teacher performance. In the exhaustive study, researchers made the claim that the professional development these teachers received did very little to improve teacher performance, thus painting a dismal view of the current state of teacher professional development. Further, a report by the Center for Public Education (2013) claimed that “most professional development today is ineffective. It neither changes teacher practice nor improves student learning” (p. 3). The general consensus seems to be that professional learning and development in education in our country is “poorly conceived and deeply flawed” (Hunt, 1996, p. 2). Yet, despite research showing the shortcomings of one-shot workshops and “drive-by” approaches to professional development, these methods continue to function as the norm in American schools (Darling-Hammond et al., 2009). In fact, over 90% of teachers have

participated in professional learning consisting of these and other ineffective methods that “fail to distinguish between different teaching styles, schools, or classroom contexts, or between the needs of novice and experienced teachers” (Hofman & Dijkstra, 2010, p. 1031). In addition, many professional development initiatives focus on teacher training in “scientifically based practices,” but these approaches are apt to be used as one might use a “how to” manual for delivering content (Lieberman & Miller, 2008, p. 8). They tend to remove the professional, educated, decision-making power of the teacher; they also ignore years of research, which has repeatedly shown the shortcomings of these approaches. Richardson (2003) criticizes the state of professional development in education, saying, “I have been intrigued, concerned, and frustrated by the fact that, while we have had research evidence on the characteristics of effective staff development programs for some time, these features are not commonly seen in practice” (p. 401). The question here, then, is not “How?” but “Why?”

Though millions of dollars are spent each year by states on educational reform efforts, these efforts are, for the most part, misguided and flawed. It is no secret that education must do far better in following the lead of medicine and other fields who support and foster the effective and continued development of their professionals (*What Matters Most*, 1996). The clarion call is clear: With teacher quality at the forefront of the focus on improving student achievement and ultimately improving our educational system, effective, well-designed professional development is now neither an option nor a luxury, but a necessity in schools and districts around the country (Borko, 2004; DeSimone, 2011; Wei, Darling-Hammond, Adamson, 2010).

My own experience with professional development (PD) over the last 25 years has been filled with nearly every sort of professional development design imaginable, from the infamous “one shot drive-by” to the summer camp immersion experience. However, it was one chapter in my career most specifically that led to my fascination with PD, my pursuing a doctorate in teacher development, and my motivation for this particular study. That chapter in my career, and how it led to this study, is the focus of the following section.

Background for This Study

As an English teacher with over 25 years of experience, I have seen and been privy to the full menu of professional development initiatives and programs. But in the fall of 2006, while working at Highland Preparatory Academy¹, a Pre-K-12 independent day school, I began a new journey in the world of PD. That fall, I was named the Upper School Coordinator of Faculty Development, a brand-new position charged with co-facilitating three massive reforms in the upper school: the shift to extended periods, a one-to-one laptop program, and the move along to a block schedule. The three-year rollout of these initiatives was extensive, collaboration with colleagues was constant, and my team of three (the Tri-Campus Director of Professional Development, the Assistant Head of the Upper School, and me) planned and bounced ideas off one another constantly. We learned from experts in the field and sought out teachers from other schools, and after three years, we executed a rollout that was seamless and seemed successful on all counts. Teachers felt supported and empowered to implement these

changes with ease, and the building, rather than being an environment of stress and anxiety, was a place abuzz with excitement and learning. Though I did not realize it at

¹ All school names are pseudonyms.

the time, I was part of something researchers and scholars might have predicted would be successful, given the circumstances we had fostered. I was part of a learning-rich environment, which included collegial relationships and a culture focused on collaboration and mutually shared knowledge. We were colleagues who were not, as Lortie asserted, in “egg crates” (1975), working in isolation behind closed doors; rather, we were collaborating and constantly talking about pedagogy and practice.

In 2011, after leaving Highland Prep, I found myself in a remarkably similar situation – not, sadly, in the type of environment in which I was working, but in the reforms taking place on campus. I was teaching at The Stonebriar School, another independent day school just 30 miles away. When Stonebriar announced its plans to implement a one-to-one laptop program along with a new schedule, I was understandably excited to share what I had learned about implementing the very same changes and see what new strategies their professional development team would use in the transition. Imagine my surprise when I learned that there were minimal plans in place for professional development, save a single half-day workshop, one hour of which would be devoted to teaching in longer blocks. We were extending our class periods, and students were going to be required to have laptops in the classrooms. As such, our teaching would be expected to reflect those changes. Faculty would be expected to leverage the power and promise of technology in teaching and assessments. We would need to know the

advantages and possibilities of those precious fifteen extra minutes in class. Yet, the school was offering very little professional development to help us prepare. Further, at Stonebriar, teachers' classrooms were their offices, so collaboration was not a given. In our isolated classrooms, we were thus expected to adapt and adjust to meet these new demands with minimal support. I saw anxiety rather than excitement on the faces of my colleagues – and a tremendous need for preparation in teaching in a one-to-one environment most of all.

Though I was not part of any administrative team at Stonebriar, I had begun my doctoral coursework the year before, and that fall, I was enrolled in a practicum course that coincidentally, had included reading about on Lave and Wenger's (1991) concept of communities of practice (CoPs). Seeing the tremendous need for PD at Stonebriar, and seeing this model as a possibility for the faculty, I was intrigued by these grassroots professional development efforts initiated by teachers themselves, and the proverbial light bulb went off. I proposed the idea of beginning a community of practice to my professor as part of my practicum; then, after obtaining approval from my head of campus at Stonebriar, I presented the idea of a community of practice to the faculty in our closing meeting of the year. I invited them to join me in creating one during the next school year for the purpose of studying ways to implement technology into our practice (see Appendix A for the invitation). Though I knew the community of practice would not be organically formed, I would still strictly adhere to the principles laid out in Lave and Wenger's (1991) framework.

In the fall of 2012, the pilot program named the “Teaching with Technology Community of Practice” was born. We began a year prior to the laptop rollout, meeting during lunch, then in the mornings as the year progressed. We increased the frequency of our meetings from once every other teaching cycle (an A-G day model which comprised a 7-day cycle) to once every cycle, on A Days. We gathered in my classroom over coffee and muffins, with laptops in hand, to discuss and share our challenges, anxieties, successes, and discoveries with learning various new platforms and programs. We grappled together with clunky software, we tried out interesting programs, and we learned some “tricks of the trade” from each other. The excitement and enthusiasm surrounding these meetings were more than I could have ever imagined. I heard routinely from teachers in the community that this was the best group they had ever belonged to, that this group “got things done,” and that we would need to keep going after the implementation, for we all had learned so much and would need that learning to continue. We began going into each other’s rooms routinely to ask questions, and we “talked shop” over lunch. We even planned “mini-meetings” during common free periods to try out ideas or demonstrate programs for each other. In short, we were finding ways to collaborate at every opportunity.

After the first year, the Director of Technology and the Headmaster at Stonebriar both took notice. Hearing the buzz around the building of our successful meetings, they asked questions of our members and the head of our campus. The Director of Technology began attending our morning sessions. They were impressed at the way the meetings were set up with no formal agenda, but rather addressed needs and issues

introduced by the teachers. They saw how teachers at the meetings were engaged and working on problems relevant to their own teaching. These two administrators soon commented to their administrative team as to the way the communities of practice were run – hands-on, engaging, and productive.

Over three years, this CoP evolved into a vital part of teachers' professional lives, and I became intrigued at the "how" and "why" of its success. In doctoral courses, I was privy to countless horror stories about PLC and CoP implementation in other schools, and I saw eyes roll at the mere mention of those meetings in their communities. Yet, at Stonebriar, I was enjoying success, and rather than eyes rolling, I saw crestfallen faces when we *couldn't* meet. What accounted for the difference? A number of things were at play here: I knew I had helped to create something important, and I believed it to be instrumental in changing practice and the sense of efficacy among my colleagues at Stonebriar. But why was it working at Stonebriar and not in my classmates' communities? What about this model was so different? I had implemented the CoP, following Lave and Wenger's models and "imperatives" that I had studied, so I began crafting an idea for answers. The criteria were there and could be analyzed, but I also wanted to ask the teachers for their perspectives on the nature of the impact of this experience and the facets of the CoP that most resonated with them. I was interested and fascinated to hear the teachers' voices.

In 2015, I began a new position at another school, this time as a dean in charge of all faculty professional development. As I continue to move forward in this role, I hope to replicate the success I found at Stonebriar; therefore, I am even more intrigued as to

what fuels the success and the effectiveness of communities of practice. Though research literature is “replete with studies that extol the virtues of learning communities,” and though there are myriad articles discussing the why and how regarding communities of practice in education, there are very few that describe an in- depth experience of one – and fewer still that look at the experience from the teacher’s perspective (Vescio & Adams, 2008, p. 81). If professional development is so flawed in this country, and research says that it is, perhaps listening to the teachers’ voices might tell us more of why something works when it does, more than simply outsiders’ perspectives and generalizations. As such, I looked to the literature to see what had been added to the body of recent research that might add to the collective voice of teachers and their experiences in communities of practice, and to see if that research might answer the following research questions:

- What meaning do teachers make of participating in a community of practice?
- What changes, if any, do teachers report in their teaching practice as related to their participation in the community of practice?
- According to the teachers, what aspects, if any, of the community of practice were most significant in prompting changes to their teaching practice?
- What meaning did I make of my experience in the group as both a researcher and as a participant-facilitator of the group?

Organization of the Dissertation

In this first chapter, I have presented a broad introduction of the current landscape in teacher professional development, along with an overview of my own journey that has

brought me to this area of interest in educational research. In the next chapter, I highlight the characteristics that research has shown to be effective in teacher professional development; then, I look at a specific model of professional development that features these characteristics. Following this, I offer a theoretical frame for this study by discussing three theories of learning: sociocultural learning theory, situated learning, and the community of practice theory of learning. In chapter three, I present a review of research focused on communities of practice in education, including a section that distinguishes communities of practice from other learning communities. The research focuses on those studies that include teacher voice and their perceptions of membership in a community of practice; the importance of hearing these voices is also presented. I elaborate on each of the themes that emerged from these collective voices. Chapter four then describes my research methodology, including a brief discussion of the case study method, along with a description of the setting and participants in this particular study. Following this, I explain my data collection and data analysis methods. Chapters five and six present my research findings as they relate to my four research questions, a discussion of these findings and their implications, along with what they might offer to the educational community, and finally, suggestions for further research.

Chapter Two: Literature and Theoretical Framework

Much of the current research on effective professional development – that which has been shown to effect change in teacher practice and improve student achievement – has focused on its forms, characteristics, and structures (Abilock, Harada, & Fontichiaro, 2013; Boyle, While, & Boyle, 2004; Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; DeSimone, 2009; DeSimone, 2011; Garet, Porter, Desimone, Birman, & Yoon, 2001; Gulamhussein, 2013; Guskey, 2003; Kennedy, 2016; Lester, 2003; Lutrick & Szabo, 2012; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Wei, Darling-Hammond, & Adamson, 2010). In the last ten years, five highly-regarded, comprehensive reviews and meta-studies have distinguished the features of professional development initiatives considered effective (Darling-Hammond et al., 2009; DeSimone, 2011; Garet et al., 2001; Gulamhussein, 2013; Penuel et al., 2007), and four common features of those effective initiatives were identified across all of these reviews and meta-studies. Those four shared features are as follows:

- A focus on active learning – Initiatives should engage teachers in observing practice, crafting and improving instructional practices, analyzing student work, interpreting data, and/or receiving/giving feedback. PD should not be passive or lecture-based; a key component in making sense of new practice is participating actively in the learning of it.
- Alignment with current practice – The focus of professional development should connect to content, current school priorities and initiatives, or curricular goals.
- Ongoing, Sustained Implementation – Professional development must be ongoing,

usually one semester at minimum, or consisting of 20+ contact hours. According to Gulamhussein (2013), teachers must have the time to “learn a new strategy and grapple with the implementation problem” (p. 3).

- Collaborative in Nature – Professional development should include, build, and/or encourage relationships among teachers, and involve opportunities for working and participating together. (Darling-Hammond et al., 2009; DeSimone, 2011; Garet et al., 2001; Penuel et al., 2007)

In looking at these four characteristics, what seems to be evident is the need for – the demand for – learning done in communities, and an end to isolated in-service days and isolated teaching that have been shown to be ineffective. In the need to observe practice, analyze student work, and give/receive feedback, teachers must collaborate, and they can do so with the most ease in the communities where they belong. Teachers need opportunities to work together, to learn from each other as coaches and peers, to reflect on shared practice, to try out new ideas with others, and to make instructional decisions with each other based on their own community’s needs. These opportunities do not exist in isolated professional development workshops or presentations with no follow-through (Darling-Hammond et al., 2009).

Yet, one persistent, specific flaw in current professional development practices is the mistaken belief that teachers can increase their effectiveness and deepen their practice when engaged in professional development that is not connected to, or relevant to, the professional communities to which they belong (Lieberman & Miller, 2008, p. 2). Many teachers consider these methods as useless; Wineburg and Grossman (1998) reported one

teacher as regarding inservice days “as an appendix, something she could take of leave without being affected one way or another” (p. 2). Further, these disconnected PD days do nothing to break walls down or provide opportunities for collaboration. Instead, they perpetuate the practice of teaching as isolated, and it remains Lortie’s infamous “egg crate” profession, wherein teachers exist in the same space, but barriers prevent the practice of collaboration, one of the four key factors in effective professional development (1975, p. 14). If PD is to be connected to content and school/curricular goals, then it only makes sense to have it based on the school site as well, so that teachers can easily bridge the gap between theory and practice.

Further, situating professional development in schools where teachers practice helps to ensure the ongoing and sustained nature of these programs. Spontaneous, “in-the-moment” conversations can happen with ease between colleagues when they share the same learning experiences, and when they are working to implement the same new pedagogies. And finally, geographical limitations of collaborating are removed with programs that are situated in the teacher’s workplace; collaboration is far easier when colleagues are on one campus than when they are across districts or cities.

In still another review of literature that focused on the professional development of in-service teachers, Postholm (2012) concluded not only that “learning in school is the best arena for further development of teachers,” but also, and more specifically, that “cooperation with other teachers and a school administration that supports social learning is the best way for teachers to develop their own teaching, which in turn leads to benefits for pupils’ learning” (p. 424). With the ultimate goal of professional development being

teacher change that leads to improved student learning, school-based professional development seems to be an answer educational researchers have been searching for.

Professional development based on this idea of community that is ongoing, sustained, active, and aligned with practice is the model of learning communities. Over the last several years, various models of learning communities have found favor in schools; among the many types are professional learning communities (PLCs), communities of practice, critical friend groups, teacher learning groups, and communities of continuous inquiry. Though all of these models use the four features of effective PD in their design, the model that I chose to implement at Stonebriar, the community of practice model, varies slightly in design and implementation; these variances may or may not hold answers to why Stonebriar community of practice was so successful in the eyes of the teachers.

In the section that follows, I offer a brief discussion of sociocultural learning and situated learning theory, both of which inform the concept of communities of practice, a framework based on the work of the educational theorist Etienne Wenger and sociologist Jean Lave, and the framework that informed the design of my community of practice at Stonebriar. I then outline the framework itself, and distinguish it from other forms of learning communities. Following that, I briefly review the research on communities of practice in education, specifically how they have been designed, the ways in which they have functioned, and finally, the teachers' perspectives as to what makes them an effective form of professional development.

Theoretical Framework

Sociocultural Learning Theory

Sociocultural learning theory is based on a single premise: learning is social. As such, this theory provides a rich lens through which to examine the effectiveness of communities of practice in school settings and their effect on teacher learning and practice. Using this lens, teachers in isolation have very little chance of growing and learning professionally; it is in the collaboration with peers that they can develop and shape their practice. Their learning is dependent upon interactions, and it is in those interactions with others that meaning is made, whether through language, through use of artifacts, or through acceptable norms of behavior (John-Steiner & Mahn, 1996). We learn by watching, by adapting, by adopting, and by negotiating. Learning, according to Russian psychologist Lev Vygotsky and other subsequent social learning theorists, is not the result of a “uni-directional transmission of knowledge” from one to another; but rather, the process of “transforming socially shared practices into internalized processes” (John-Steiner & Mahn, 1996, pp. 197, 192). In other words, learning must happen as an individual interacts, observes, and makes meaning of the behaviors and practices of the outside world. As a learner participates in social settings, through mutual collaboration, a “complex process of transmission, transformation, and synthesis occurs” (John-Steiner & Mahn, 1996, p. 196). In this process, the learner co-creates new knowledge with other participants in the social setting, or community (see Figure 1).

Even more, learning involves not just the internalization of this knowledge, but it involves the learner becoming *part* of that knowledge community in which he is

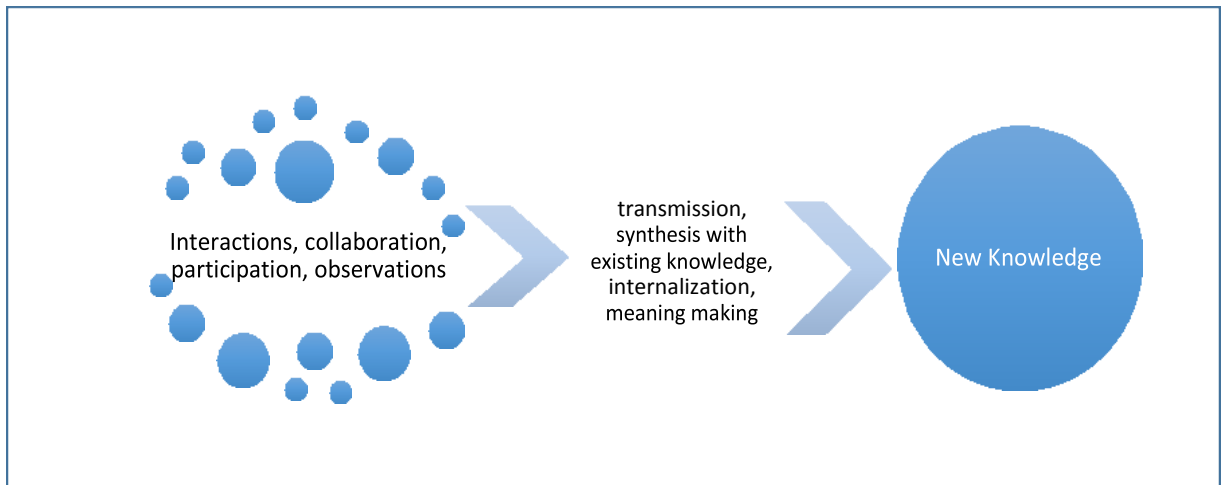


Figure 1. Learning from a Vygotskian Perspective

participating as well (Lave, 1991, p.65). Thus, in short, to social learning theorists, learning is a social phenomenon, and participation with others in community is tantamount in understanding how learners develop. Working with others allows these complex processes in the acquisition of knowledge to occur, whether they be through practice, a shared language, or norms of interaction. The transmission of knowledge is internalized and transformed in the observer, synthesized internally with his own knowledge, and as a result, new meaning is made. She has learned from the community, and in turn, as she then interacts with that same community, she will transform it with that same knowledge as others interact with her. Thus, knowledge is ever-changing and fluid in community, as learners are constantly shaping, and being shaped, by each other. This *sociocultural* view of learning, then, counters many common rudimentary assumptions about learning, most notably the ideas that “learning is an individual process,” and that learning has a “beginning, middle, and end” (Wenger, 1998a, p.3). For

professional development, this has notable implications. As learning is not “an individual process,” professional development should be delivered to teachers in community; as learning has no “beginning, middle, and end,” that same professional development initiative or offering should be ongoing and sustained over time. Teachers working together in the communities where they teach, with colleagues that they can learn together with on a daily basis, is, using the lens of sociocultural learning, the ideal scenario for effective professional development.

Looking still more closely at key aspects of how learning occurs in sociocultural settings, the great pioneer in social learning theory, Vygotsky, posited the idea that individuals have two stages of development: the actual and the potential (Fani & Ghaemi, 2011; John-Steiner & Mahn, 1996; Shabani, Khatib, & Ebadi, 2010; Vygotsky, 1978). According to Vygotsky, *actual* development in a learner is defined as that which she already knows, has already internalized, and can already practice without assistance (Shabani et al., 2010). An adult who can read fluently and picks up a novel; a swimmer jumping in a pool; or a concert pianist who picks up a simple piece of sheet music to play – these are all examples of those whom Vygotsky would refer to as ones in stages of *actual development*. The area of *potential* development, however, is defined at that “space” where the learner can understand *with help*, and includes those tasks which she can complete “in collaboration with a more capable peer,” commonly referred to as the “more knowledgeable other” (MKO) in the literature (Vygotsky, 1978, p. 33). This area of potential development, coined by Vygotsky as the *zone of proximal development*, is the optimal “spot” or opportunity where learning takes place (Vygotsky, 1978). Consider

a one-year-old learning to walk. She may not be able to do the task alone, but if she is offered her father's hand, she may confidently stroll across a room. That *zone* – the area where she completed the task with assistance (or with the *more knowledgeable other*) and can learn to walk with her father's hand – is Vygotsky's *zone of proximal development*. Her walking with assistance was in the *zone*; however, had her father given her his hand and tried to get her to do dance en pointe, she probably would have failed. In Vygotsky's language, this task would be far outside the "ZPD," not within her realm of learning.

Building on these ideas, the sociologist Jean Lave (1991) theorized that socially constructed learning includes the concept of *legitimate peripheral participation*, which refers to the way an individual learns in community. According to Lave, a learner, slowly at first and over time, becomes, through participating and engaging with others in community, a full participant (p. 68). Gradually learning to speak and interact as part of that community characterizes any learner's development. Much like Vygotsky's zone of proximal development, a learner moves slowly inward toward full participation, toward learning, incrementally in his *zone* until he reaches full participation, full knowledge, or full membership in that community – comfortably and at his own pace. The baby, as in the example above, over time, becomes a member of the "walking world." As another example, a medical student, in becoming a full-fledged physician, must first *observe* doctors in action. Then, he may serve as an intern, where he shadows an attending physician (the more knowledgeable other, or MKO), and as such, will accompany him on rounds, watch him operate, and listen to his diagnoses. Following this phase, he enters residency, where he gradually learns to practice medicine without assistance, to speak the

language far more fluently, and to become more a part of the medical community. It is only after these phases of learning that a student can become ready to practice medicine on his own— only after *legitimate peripheral participation* can he call himself a full member of the practicing medical community.

Again, this can be applied to teacher professional development. Beginning teachers, or even veteran teachers who are faced with learning a new curriculum or pedagogy, should be grouped together with those in the building who are, as Vygotsky put it, the “more knowledgeable others.” Working and learning together with others, these beginners then gradually grow in expertise and skill until they become more knowledgeable themselves, and the community grows stronger because of it.

Situated Learning Theory

With its roots in sociocultural learning, situated learning (or situated cognition) posits that learning occurs “in contexts that reflect the ways they will be used in real life” (Collins, 1988, p. 2). To illustrate this theory, Brown, Collins, and Duguid (1989) point to the example of language learners. Learning a new language from a book, away from the context and culture in which it will be spoken, is effective in teaching only “basic parts of learning a language” (para. 6). If, however, a learner immerses himself in the culture where the language is spoken, or speaks in conversation with a native speaker of the language, his learning will be far more advanced. This approach will introduce him to much more than words on a page; it will give him rich context and ways of speaking not found in any book. Likewise, situated learning is learning in context. It is learning

with others while discussing and sharing knowledge in the activities and tasks associated with the new ideas.

Situated learning theory holds that knowledge is not “decontextualized, abstract, or general” (Smith, 2009, para. 22). Instead, it is rooted and must be presented in authentic contexts. Learning “requires social interaction and collaboration” (Culatta, 2015, para. 6). Its roots in sociocultural learning are clear, as learning requires *community*; put simply, we learn through practice in a community. In the world of professional development, the implications are clear: teachers, too, learn best in community, in the context of the schools where they teach.

The Community of Practice

The educational theorist Etienne Wenger, along with sociologist Jean Lave, looked to this intersection of community and learning, and the vital reciprocal role each plays with the other in the learning process, in their work studying apprenticeship models of learning. In their research, the pair developed the concept of a “community of practice,” which though a recent coinage, is an age-old idea, according to Wenger-Trayner and Wenger-Trayner (2011), and at its most basic level, refers simply to “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (p. 1). Communities of practice are “about shared experiences...and learning is not about what happens in people’s heads; it is about what happens in their relationships and conversations with others who are engaged in common work” (Lieberman & Miller, 2008, p. 16). The groundbreaking work by Orr (1990), which described the work done by Xerox technicians, illustrates this idea that knowledge

is not a matter of transmission from one person to another, but rather co-constructed as individuals work together. In Orr's study, a group of Xerox technicians did not rely on training manuals or their formal training to solve problems in the field. Instead, these technicians informally – in casual conversations in the break rooms and around the water coolers – shared ideas, stories, and their own “tacit knowledge”; in doing so, they solved problems and came “to understand far more about how to repair copiers than the manuals could provide” (Hoadley, 2012, p. 288). Knowledge, then, as this case illustrates and as sociocultural learning theorists believe, does not belong to single individuals, but instead is “embedded in cultural practices” and can “only be made explicit through social processes in the context of an actual problem” (Hoadley, 2012, p. 288). In other words, it must be shared and created together with others.

Lave and Wenger take this view to heart in their conception of communities of practice. Honing and refining the broad definition of these groups, which encompasses everything from the Yucatec midwives they studied in their early research, to bankers, rock band members, and even members of Alcoholics Anonymous, Wenger (2011) specifies that “members of a community of practice are practitioners [who] develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems – in short, a shared practice” (p. 1). Over time and through sustained interaction, these relationships are built and learning is fostered, as was exactly the case in Orr's study of the repairmen. Wenger emphasizes that communities of practice are much more than individuals who share a job title or a workplace; communities of practice

“are places where we develop, negotiate, and share” theories and ways of understanding (Wenger, 1998b, p. 48).

Lave and Wenger (1991) identified certain key elements integral to a community of practice, chief among them the idea of legitimate peripheral participation (discussed earlier) and its malleable effect on one’s identity in the process of learning and belonging to community. Along with the idea of legitimate peripheral participation, or “learning as participation,” three additional elements are necessary for a community of practice to be identified as such (p. 43). These three elements are the domain, the community, and the practice (See Figure 2).

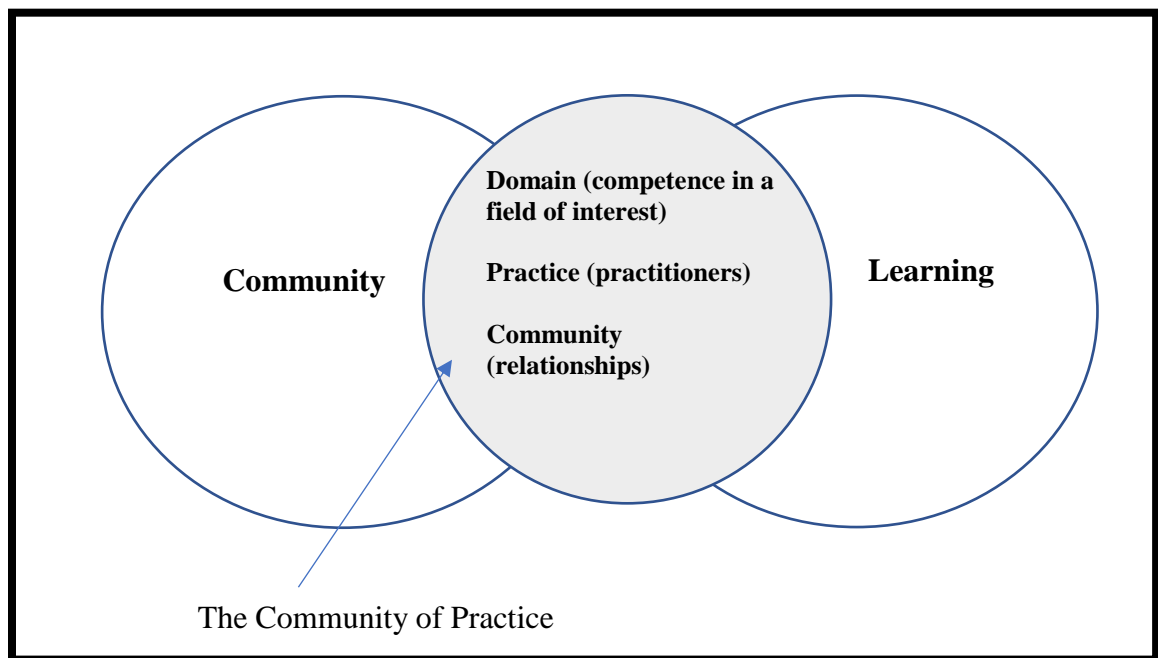


Figure 2. Wenger’s Communities of Practice

The *domain* is that area of interest that unites the members of the community; it is to that interest that they are committed and to which they enjoy a shared competence.

Competence, not just interest, means that a group of baseball fans who simply like to gather and watch games would not necessarily be considered a community of practice. There is no competence there, no learning being done. However, a group of groundskeepers from Yankee Stadium and Citifield who gather on Monday nights at a local watering hole to discuss the best ways to keep the grounds in pristine condition, while at the same time sharing stories or simply socializing, would indeed be considered a community of practice. Their domain is shared, and their competence – maintaining and caring for the stadium grounds – is enhanced by their gatherings. In the world of education, teachers in a building do not necessarily share a domain, according to Wenger’s concept. Simply sharing a work environment or profession does not constitute a community of practice. However, if these teachers are committed to learning how to better reach their students and they share ideas and resources in their commitment to do so, then they do share a domain. They are united in their interest and in their striving for competence in their community; thus, the first component of a community of practice is in place.

Along with this shared domain, at the heart of the community of practice is the idea that members of a community of practice are practitioners. In their relations with one another, they “develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems – in short a shared *practice*,” the second component of a community of practice (Wenger, 2011, p. 2). Again, the novice learns by watching, discussing, and interacting, but so too do the old-timers. Newcomers bring fresh ideas and insights, and the blending of old and new creates a fresh vision and

perhaps improvements on outdated techniques. In teaching, this can happen constantly. New teachers can bring in new ideas and invigorate a community with novel ways of approaching curriculum or student learning. Likewise, veteran teachers, in sharing their expertise with a newcomer, shape her understanding of teaching in new ways as well. Everyone's experience is enhanced as they develop these shared resources and as they experiment – or *practice* – with new pedagogies. In doing so, the *community*, the third vital aspect of the community of practice, is transformed for the better.

According to Wenger (2011), not only do members share interest in their domain, but as they “engage in joint activities and discussions, help each other, and share information,” they also “build relationships that *enable* them to learn from each other; they care about their standing with each other” (p.2). These relationships constitute the “community” in the community of practice. According to Wheatley and Frieze (2001), it's important to remember that people...*willingly share* if they feel committed to the organization...feel encouraged to participate and learn, and if they value their colleagues” (p. 32). In other words, members of the group are not merely practitioners with no sense of investment or caring; they are practitioners who indeed care deeply about their domain, their practice, and their relationships with each other. In schools, communities of practice are found in groups of teachers who share a commitment to the success of their schools and their students, who dedicate themselves to learning and implementing best practices in their fields, and who seek out ways to collaborate with colleagues in an effort to achieve, and help others achieve, at high levels in these pursuits. In Lave and Wenger's view, “the reproduction of knowledge through the process of joining and

identifying with communities” is the “central and defining phenomenon within a community of practice” (Hoadley, 2012, p. 291). It is the core of the concept.

The interaction of these three elements – community, domain, and practice – form the basis of a community of practice (Wenger, 1998a).

Also critical to the concept of a community of practice is the idea that membership “allows for, but does not assume, intentionality” when it comes to learning (Wenger, 2011, p.1). Members may come together with no intention of teaching or learning; however, through participation and interaction, that learning occurs. In the same way, the intention *may* be there. What characterizes the community of practice, then, is not the *intentions* of the group formed; it is instead the *outcome*. Along these lines, the community of practice may be formally organized, or it may be “fluid and informal” (Wenger, 1998a, p. 2). It is characterized by a shared practice, whether a formally recognized one or not. Researchers have simplified this idea in saying that communities of practice can be distinguished by learning as a result of “low institutionalization and high connectivity,” characteristics that set it apart from other forms of learning and knowledge-building communities (Hoadley, 2012, p. 294). Thus, gang members who interact and learn ways of being from each other, in Wenger’s view, are members of a community of practice (Wenger, 2011), as are members of an engineering team working diligently to create new products. Simply put, communities of practice are formed, formally or not, around “things that matter to people” (Wenger, 1998a, p. 1).

Finally, in the community of practice, the phenomenon of identity is not limited to the learner himself; in a community of practice, as the learner learns, his identity, along with the identity of the community itself, shifts. His interaction with others and participation in the practice both change, which in turn changes others, as they adapt to and adopt (perhaps) his ways of doing. Thus with these changes in the way others carry out the actions of the community, the practice is transformed as well. Through the learner's participation and with his learning, his identity and the community itself are both changed (Flint, Zisook, & Fisher, 2011).

To the learner, this is critical; however, when this concept is applied to organizations, the ramifications are huge. Entire cultures can be transformed by investing in and fostering continued learning growth. Wheatley and Frieze (2006) carry this concept even further by stating that:

In spite of current ads and slogans, the world doesn't change one person at a time. It changes as networks of relationships form among people who discover they share a common cause and vision of what's possible...Rather than worry about critical mass, our work is to foster critical connections. We don't need to convince large numbers of people to change; instead, we need to connect with kindred spirits. Through these relationships, we will develop the new knowledge, practices, courage, and commitment that lead to broad-based change. (Wheatley & Frieze, 2006, para. 1)

Wheatley and Frieze speak to the very essence of communities of practice. Connecting with kindred spirits, or in other words, being part of a domain in community, lays the

groundwork for the learning done in CoPs. In education, this plays out as teachers, in small groups, pairs, or large teams, facilitate change by connecting; these relationships are what “lead to broad-based change.” Systems such as schools, in this view, “survive and grow” organically as people connect, rather than as a result of mandated initiatives and one-day workshops.

As a model of organizational learning, communities of practice have been instrumental in teaching skills and solving problems both inside and outside of the normal boundaries of organizational structures (e.g., committees, traditional avenues of support). Newcomers who have no exposure to the ways in which things are done are given opportunities to practice and learn skills with those more experienced and more knowledgeable. Then, as they become more adept, these same novices or apprentices may transfer those same best practices on to other colleagues in mutual sharing, or they may exchange in a back and forth with the old-timers, thus blending old ideas with the new. Problems are also solved in a community of practice, as members may routinely and informally share ideas on ways to solve common issues (Wenger & Snyder, 2000). When problems are outside of the normal boundaries of organizational structures developed to handle them, communities of practice are especially effective as ways to deal with and solve troublesome issues.

Communities of practice may take various forms. They may be virtual or face-to-face, may be formal or informal. They may include those groups of Yucatec midwives, members of Alcoholics Anonymous, or members of a corporation exchanging ideas. In any of the myriad forms they may take, communities of practice include people who

“share their experiences and knowledge in free-flowing, creative ways that foster new approaches to problems” (Wenger & Snyder, 2000, p. 142). In a meeting room, on the playground, or at the proverbial water cooler, a community of practice can exist and thrive anywhere.

After reading the literature on communities of practice, I became interested in how transferring this work to education has – or has not – proven to be an effective model for teacher learning and implementing change in schools. In the section that follows, I present an overview of the literature focused on communities of practice in educational settings, including the teachers’ perspectives on what meaning they made from their experiences in such groups.

Chapter Three: A Review of the Literature on Communities of Practice in Education

As Ball and Cohen (1999) point out, “teachers become serious learners in and around their practice, rather than amassing strategies and activities” (p. 4). Thus, it is easy to see how the concept of a community of practice could ideally play out in the world of professional development in education. In situating learning in context, rather than attending isolated, disconnected workshops, teachers learn best. Ideally, as teachers interact and discuss pedagogy or methods, a novice teacher – the “legitimate peripheral participant” in Lave and Wenger’s concept – will, in this ideal setting, listen and observe, and watch those more experienced as they navigate the tricky waters of teaching. She will adopt some practices and adapt others to suit her needs; she will hopefully discuss her issues with colleagues and gain insights from those discussions, and if really fortunate, she might sit in on classes and observe master teachers at work, taking careful note of their best practices. As time goes on, and as her practice changes, she will begin to participate more fully in that community of teachers. What’s more, veterans, too, might begin to see other ways of practicing by interacting with her in community. Everyone’s experiences ultimately affect the other’s, and ideally, learning is always happening. With this continual learning, the way is paved for teacher change, improved instruction, and increases in student learning – all hallmarks of effective professional development.

What a Community of Practice Is *Not*

Because of the widespread implementation of learning groups in schools, the term “community of practice” has erroneously become a sort of umbrella term in education referring to all types of professional learning communities. It is an important distinction to make that communities of practice are not the same as other forms of learning communities; rather, they are only those that, in addition to the characteristics put forth by Lave and Wenger, either “grow informally around a need, have voluntary membership, and are not formally constituted” groups (Younger & George, 2013, p. 314), or, according to Wenger (1998a) can be formed, but do not necessarily become a community of practice simply because they are referred to as one. Rather than the origins, it is the behavior and ways of learning that constitute a community of practice. Unlike other types of learning communities, according to Wenger, the community of practice members “develop *among themselves* their own understanding of what their practice is about” (Wenger, 1998a, p. 2). Like the groundskeepers at Yankee Stadium or the Yucatec midwives, teachers coming together to share knowledge simply for the purpose of “creating new, relevant, practical knowledge” are the core of communities of practice in education (Younger & George, 2013, p. 314).

This is a critical distinction to make in the research on communities of practice. Communities of practice are often organic, and even if they are formally created, they develop via the “learning that does not happen in people’s heads...[but] in their relationships and conversations with others who are engaged in common work” (Lieberman & Miller, 2008, p. 16). This organic nature of the community of practice

means that a group of teachers in a building may share knowledge and expertise without any expectations of doing so. The proverbial “water cooler talk” example exemplifies this type of community of practice.

Thus, a community of practice is not merely another term for a professional learning community, a group that is formed and often mandated *for the purpose of* learning a task or for focusing on a specific objective. This is not to say that a community practice cannot have its origins in learning a specific task; it is just not necessary. It may form, or it may not, in the face of such a goal. Again, it is the “high connectivity” and “low institutionalization” (Hoadley, 2012) that distinguish CoPs from other communities, meaning that the influence of the organization in the dictation of what is to be learned or when the learning should take place is minimal, but the connections among the members and the learning that result from that – based on what and when those members want – are of paramount importance.

What is not an “either/or” quality of a community of practice is the idea that membership is *self-selected* and *voluntary*. In a community of practice, as defined by Wenger, members may always come and go as they please. The “passion, commitment, and identification with the group’s expertise” are what hold the group together (Wenger & Snyder, 2000, p. 142). Teachers in a building may be part of a community of practice, but it is not because they simply teach together, for this would not be a self-selected group at all. If a community of practice were to spring up in their environment, however, it would be because they selected to engage in it voluntarily, because they cared about their domain deeply, and because they acted as part of a community – even if it were a

small group of six or seven of them. They may not even know they are part of a CoP, according to Wenger's concept; they may simply gather informally and routinely to talk about how to best teach a certain novel, quadratic equations, or a physics unit, and in that, they have distinguished themselves as a community of practice.

Still other distinctions exist between communities of practice and other types of professional learning communities. One of the pivotal characteristics of a community of practice is Lave's concept of legitimate peripheral participation, and the identity shifts that accompany it. Lave and Wenger's framework focuses on becoming a part of a community through legitimate peripheral participation, on learning through observation and gradual assimilation, and of identity formation as a result of those two actions. According to Barab & Duffy (2000), this "development of self through participation in the community and the importance of legitimate peripheral participation as part of a community in that development of self" (p. 35) is the most important of its distinguishing features.

Communities of Practice in Education

The number of studies done on communities of practice in education, at first glance, seems high. When conducting a literature search using the terms "communities of practice" and "education," and narrowing the focus to the last 15 years, over 300 studies are found. However, because many researchers use the term *community of practice* to refer to any group of practitioners who work in the same field or building, this number drops precipitously (to 45) when narrowing the focus down to those studies that use the concept of a community of practice according to the characteristics set forth by

Lave and Wenger, who actually coined the phrase and laid out the original concepts of communities of practice.

In these 45 studies, it is easy to see a snapshot of how communities have functioned in education in the last 15 years. Communities of practice have been researched whose memberships were comprised of groups of students alone (Sayer, 2014), of students and teachers (Evnitskaya & Morton, 2011), of entire faculty (DeMeulenaere, 2015, Finnan, 2015), of administrators (Bouchamma & Michaud, 2014), of department-specific groups (Cwikla, 2007; Fraga-Canadas, 2011), or of novice teachers (Bell-Robertson, 2014; Cuddapah & Clayton, 2011; Lambson, 2010; Yandell & Turvey, 2007). Research has varied in its focus as well; the formation of a learner's identity – a key component in the community of practice framework – especially among novice teachers, has been the basis for several studies (Goodnough, 2010; Wild, 2011), as has learning from novices (Salisbury & Jephcote, 2010; Woodgate-Jones, 2012) and an argument for age diversity in university faculty (McCune, Hounsell, Christie, Cree, & Tett, 2010). A focus on the education of animal care students, and how their learning was best done in a community of practice, was the subject of another study (Salisbury & Jephcote, 2010), and a group of yoga teachers and elementary school students were studied as a community of practice in a 2015 study by Finnan.

Despite the scope and variety of research studies on communities of practice, as Vescio and Adams point out in their 2008 review, very little has been done that includes the teachers' perspectives on participation in these communities, especially with regard to why these groups are effective in their learning and development. Studies do include

data that *infers* the teachers' perceptions; for example, there are studies that include the researcher observing teachers in a community of practice setting, taking notes as to what is said, and then drawing conclusions as to the effectiveness of the CoP or as to what the teachers value about the community, based on those conversations. There are studies, too, that ask teachers questions about their practice after participating in a CoP.

However, very few studies have explicitly asked teachers about the community of practice *itself*, about its characteristics, about their experience as a participant, or about its value. Studies get inside the results; they do not get inside the *why* or the thinking of those involved. To understand why teachers change their practice or what resonates with them in a professional development setting, it only makes sense to ask the teachers themselves. Volumes of professional development workbooks and billions of dollars spent annually on professional development programs (TNTP, 2015, p. 2) do nothing if teachers do not see the benefit or feel empowered to implement reforms. As such, I looked to the literature to determine what has been added to the body of research since Vescio and Adams's 2008 study.

In looking at the literature, I searched for studies that included several key criteria. First of all, the studies had to use Lave and Wenger's concept of a community of practice. As stated before, the term *community of practice* has become an umbrella term to many, referring to any group of people who share a practice. So, I looked specifically for those research studies that followed Lave and Wenger's model. Next, I looked for studies that included teacher interviews or data that recorded teacher thoughts and impressions *about the experience of participating in the community of practice*. I did not

focus on grade level, geographic location, or what specific research questions were at the heart of the studies; rather, I focused on any group of teachers who were asked to share something about their experience. I also limited my selected studies to those that concentrated on face-to-face communities rather than online communities. The effectiveness of any virtual collaborative effort is a study in and of itself, and it was beyond the scope of my study to include the added layer of online professional development to the already complex world of situated learning in the workplace. Of the 45 studies on communities of practice in education, only 15 included the teachers' perspectives about their experience in the community as part of their data. In seeking to answer my research questions regarding what meaning teachers made of participating in a community of practice, what changes, if any, they reported in their teaching practice as related to their participation in the community of practice, and what aspects, if any, of the community of practice were most significant in prompting changes to their teaching practice, I delved into the 15 studies and analyzed the teachers' words. I knew, too, that it was possible that there had been no changes in practice at all for some teachers, so I looked for all perspectives, not just those who extolled the virtues of communities of practice. I pulled from each study the direct quotes from the teachers who made up membership in the community. In those comments, several patterns and commonalities emerged. Though the studies varied widely in scope and focus, I identified five broad themes among them. Those five themes were as follows:

- 1) Communities of practice foster collaboration.
- 2) Communities of practice serve as vehicles for reflection.

- 3) Communities of practice are important for student learning.
- 4) Communities of practice act as catalysts for professional growth.
- 5) Communities of practice offer teachers the opportunity to direct their own professional development.

Each of these five themes is elaborated upon below.

Fostering Collaboration

Responses by the teachers, in several studies, focused on the collaborative aspects of communities of practice, and the benefits those aspects provided; this theme of collaboration was by far the most dominant one to emerge from the studies (Borg, 2012; Chu, 2010; DeMuelenaere, 2015; Flint et al., 2011; Goodnough, 2010; Graven, 2004; Green, Hibbins, Houghton, & Ruutz, 2013; Lambson, 2010; Marsh, 2013; Park, Oliver, Johnson, Graham, & Opong, 2007; Salisbury & Jephcote, 2010; Woodgate-Jones, 2012). When looked at even more closely, however, the concept of collaboration became muddy; was simple moral support collaborative? Was merely sharing materials collaborative? Or was discussion of these materials, or co-creation of them, a necessary piece of collaboration? As the teachers' remarks regarding collaboration became more and more plentiful, and the concept more and more varied, I found it necessary to break the concept of collaboration into two sub- categories: sharing and learning (being a source of knowledge, ideas, and resources for each other); and supporting (creating an affective culture of support, encouragement, and trust).

Sharing and learning. Whether the sharing involved examples, best practices, resources, advice, or ideas, teachers in many studies found value in this aspect in their

participation in the communities of practice (Borg, 2012; Chu, 2010; DeMuelenaere, 2015; Flint et al., 2011; Goodnough, 2010; Graven, 2004; Green et al., 2013; Lambson, 2010; Marsh, 2013; Park et al., 2007). Park et al.'s 2007 study involved teachers who articulated this idea most clearly. Fourteen teachers involved in the National Board Certification process at one Georgia high school found that their belonging to a community of practice gave them opportunities to engage with each other in ways that had not existed before. According to one teacher, "three of us in our group are talking to each other a lot about what we're doing, and we're just giving each other ideas to improve it" (p.90).

Communication among these teachers served to break down the "culture of isolation and focus on the mundane" that had been dominant at this high school (Park et al., p. 382). In Chu's 2010 study, a French teacher also appreciated the value of collaboration; she "appreciated having a venue to talk to other people who are doing the same thing and have resources in French" (p. 61). One younger teacher involved in Graven's 2004 study echoed yet again the value of this practice, saying "before, it was more or less a one-man show. . . . You haven't shared any ideas with teachers. . . . Being in a group that you could rely on, you got quite a few ideas and this now stimulated my interest in . . . new teaching styles, being creative" (p. 197). Younger, less experienced teachers were not the only ones who benefitted from sharing ideas, however. In Green et al.'s 2013 study of university professors involved in a community of practice that focused on "designing for learning" along with a view toward sharing ideas to support more effective and efficient teaching practice, the benefit of younger teachers learning from

more experienced ones was balanced as older teachers expressed their appreciation for the newcomers' ideas. One "oldtimer" (as Green et al. referred to them) said, "Every meeting I've been to, I've picked something up. It's either a little tip or – it just opens your mind to other ways of thinking about things" (p. 253). And in Borg's 2012 study, one teacher summed up the collaborative nature of the group by saying, "Working with like-minded people who also like to work hard . . . [it's] easy to bounce ideas off each other" (p. 308). The benefits of sharing articulated in these studies offer a snapshot of the teachers' voices captured in the other studies; these benefits are a dominant theme in teachers' comments on participation in communities of practice.

Concomitant with the concept of collaboration as sharing ideas and practices, other studies reflected an idea of collaboration as gaining knowledge from others (Flint et al., 2011; Goodnough, 2010; Green et al., 2013; Lambson, 2010; Marsh, 2013; Park et al., 2007; Salisbury & Jephcote, 2010; Woodgate-Jones, 2012). Salisbury & Jephcote (2010) studied learning among animal-care students involved in real work experience as part of their educational experience at two colleges. In their program, these students worked on "farms, in stables, and in reptile houses," and as Lave and Wenger's work predicts, they taught the teachers as much as they themselves learned (p. 72). This idea of reciprocity in learning and sharing knowledge was summed up in one teacher's reflection that "some of the best staff development for me personally comes from the students. The know-how and facts that many of them bring here to share with us is truly amazing" (p. 75). Senior teachers echoed the benefits of learning from younger members in a community of practice in Woodgate-Jones's 2012 study of the value of pre-service

teachers to “old-timers,” and the role of the legitimate peripheral participants in shaping the community of teachers (p. 156). Veteran teachers saw their practices shift as “trainee teachers” brought their knowledge to the classrooms (p. 156). As one teacher put it, “we spent a long time talking about children with special educational needs and she had just had some training on it and we’re trying her ideas” (pp. 153-154). Another veteran teacher, in Goodnough’s 2010 study, shared humorously that “they say an old dog can’t learn new tricks, but this old dog is getting older by the minute, and I learned lots of new tricks” (p. 176). As expected, the knowledge of older teachers was invaluable to younger teachers as well, as was expressed in Lambson’s 2010 study. Novice teachers involved in a study group with experienced teachers in their school found it “great to be able to listen to other experienced teachers to know what you can do” (p. 1661). An “oldtimer” in Green et al.’s study summed up the benefits of the collective sharing when he said, “The teaching community of practice leads you into this teaching and learning web” (p. 256). Whether it was veterans learning from novice teachers or novice teachers learning from veterans, the “web” of learning and sharing surprised some, was of value to all, and represents the power of communities of practice throughout education.

Social, affective benefits. Finally, collaboration offered teachers in communities of practice more affective, social benefits, among them support, encouragement, and empathy. Lave and Wenger’s view that, in a community of practice, “newcomers do not so much learn *from* talk as they learn *to* talk” points to this result of collaboration (Green et al., 2013, p. 261). The confidence and knowledge gained serve to move peripheral participants into full membership in communities; both are valuable, and perhaps the

affective aspects more so. A teacher in Flint et al.'s study of three educators involved in a writing workshop project said, "Many days moral support was all that was needed and given. Some days we just got to know each other better. Other days old ideas were challenged with authority wrapped with a huge coat of kindness. I benefited from Amy's trust" (p. 1166). One teacher's ultimate comment that "we became a community of writers, encouraging, supporting, and trusting each other" resonates with the heart of Lave and Wenger's concept of a community of practice. Moral support, trust, and kindness – all attributes of these groups that allow a true community spirit to flourish.

Repeated in Borg's eight-year exploration of a community of practice was the idea of support as "a key component in terms of cultivating a community of practice" (2012, p. 306). A middle-years teacher in the New South Wales school where Borg set her research summed it up beautifully with her comment that "what's nice is feeling useful and valued. . . . I feel supported" (p. 306). Chu, in her study of a community of practice among French teachers, revealed the same attitude among her participants, seen in one teacher's view that "reassurance – knowing you're on the right track . . . it's helpful to empathize together" (p. 80). And put even more plainly, another teacher remarked, "From our meetings, I go away thinking . . . I'm happy" (p. 79). Here, too, whether it is in the practical ideas and strategies, in the knowledge others bring to the table, or in the feelings of support and encouragement found in the community, collaboration is key in teachers' perceptions regarding the factors that make communities of practice valuable in their professional development.

Reflecting on Practice

Teachers referred to the opportunities for reflection that communities of practice afforded in seven of the 15 studies (Chu, 2010; Flint et al., 2011; Goodnough, 2010; Green et al., 2013; Park et al., 2007; Shi & Yang, 2011; Woodgate-Jones, 2012). What's more, in Flint et al.'s 2011 study, a teacher reported that reflection was "the biggest value of this whole program" (p. 1167). Reflection, in these contexts, referred to teachers not only thinking about practices and methods used in their own classrooms, but it also referred to their looking at and considering overall curricula and school-wide practices steeped in tradition. Shi & Yang found reflection to be a key theme among their teachers, and the reflection was integral to both veterans and novices alike. Their study centered around a group of English teachers at a Chinese university involved in collective lesson planning, and their research question, "How do participants perceive their experiences of collective lesson planning?" was answered by teachers affirming the power of reflection. One participant in the lesson planning CoP said, "those who taught before could reflect on issues raised in the past [and] those who had not taught could learn lessons from the past" (2011, p. 140). Goodnough (2010) reported similar sentiments among her teachers, and one even went further by saying, "It works very well; it involves a lot of reflection which you do not normally do. . . . This is self-evaluation and it really works; I have not found other forms of professional development to be this way . . . it became a part of you" (p. 179). In keeping with Lave and Wenger's concept of changing identity as a result of community of practice participation, reflection then seems to be a natural

component of the process. Teachers in these studies not only recognized its value, but considered it as integral to their positive experience in the community.

Value to Students

The ultimate goal of any professional development initiative is to benefit student achievement. It is significant then that four of the studies included teachers' self-reports that focused on the carryover to student learning that resulted from their participation in a community of practice (Borg, 2012; Flint et al., 2011; Goodnough, 2010; Marsh, 2013). Put simply, in Marsh's findings, a teacher voiced her belief that "the collaboration helps us provide great educational opportunities for all students" (p. 617). In a look at a school's turnaround over an eight-year period, a turnaround facilitated by a community of practice ("teaching team"), Borg recounted one teacher's belief that "it's so successful for us in professional learning. . . . [I]t's just been so successful for the students" (2012, p. 307). The domino effect was reiterated by a teacher in the writing workshop in Flint et al.'s study. Her belief was that she "benefitted from Amy's trust in my learning. . . . I began to trust myself. I shared that trust with my students. . . . I noticed Tanisha and Whitney writing plays, Nakia enjoying writing poetry, Adam becoming my classroom researcher, Antonio exploring graphic novels . . . The freedom my students and I were experiencing led to a new passion for writing" (pp. 1166-7). A powerful reinforcement to Lave and Wenger's concept of the legitimate peripheral participant's changing identity, these students' growth as evidence of the carryover to student learning that came from the community of practice is at the heart of all desired outcomes for professional development (Wineburg & Grossman, 1998; Birman et al., 2000; Darling-Hammond et

al., 2009; DeSimone, 2009; DeSimone, 2011; Garet, et al., 2001; Guskey, 2003; Lester, 2003; Lutrick & Szabo, 2012; Penuel et al., 2007; Wei et al., 2010).

Motivation for Professional Growth

Hand-in-hand with these ideas expressed by teachers is the belief that their membership in a community of practice encouraged them to grow professionally. This motivation for professional growth was cited specifically in six of the studies as a benefit to belonging in the community (Chu, 2010; DeMuelenaere, 2015; Goodnough, 2010; Green et al., 2013; Hadar & Brody, 2012; Marsh, 2013). DeMuelenaere's 2015 study focused on a community of practice that sprang from a mandated reform in a struggling school. This "inspired" forming of a community of practice countered the negative culture created by heavy-handed attempts to turn the school around. Teachers reported "new energy" and affirmed that "it was exciting . . . to feel growth as a teacher. I almost felt like . . . I was . . . in a credential program where I really was learning new stuff and that was really exciting for me cause I felt it had gotten a little stagnant" (p. 174). This same idea of not being "stagnant" was mentioned by a teacher in Chu's 2010 study. She said, "I think you can get stagnant, and I never want to be one of those stagnant teachers. . . . I want to see what other people are doing" (p. 60). Hadar and Brody (2012) reported still more teachers' comments about growth in their study of twelve teacher educators involved in a community of practice. When asked to reflect on the influence of the community of practice, one professor expressed the power of the community of practice on his professional growth in his comment that "just being in the group helps me to think about (teaching thinking) a lot, to try to implement it. . . . I forget about it if I'm not (part

of the group)” (p. 152). These ideas expressed make evident the catalyst for professional growth that a community of practice can be, and its importance in a teacher’s experience. A teacher in Goodnough’s 2010 study added another layer to the idea by discussing the challenging piece of that “catalyst effect.” She confessed, “This project was a challenge for me because I had continued throughout my career to sit back and teach in ways I have been teaching for years and years” (p. 176). She then credited the community of practice with her transformation, for it was her membership in the group that made her “realize that I wanted to change” (p. 176). As seen by these teachers, the value in the community of practice was found in the effect it had on their desires to grow professionally.

Self-directed Professional Development

The final theme prevalent in teachers’ views of community of practice membership was the idea of their being self-directed and the ownership each teacher felt in his own learning. Three studies included comments pointing to this benefit of these aspects of the community of practice experience (Borg, 2012; Goodnough, 2010; Graven, 2004). A teacher in Goodnough’s 2010 study put it succinctly by saying “it’s very effective PD, much more so than being told what we should think is important” (p. 175). Graven, too, noticed the importance of this aspect of communities of practice, and included this comment by one of the teachers in her study, adding emphasis to show the repetition of the idea:

[It] gave us a *sense of ownership* of the program. This was further implemented by the fact that we formed *part and parcel of deciding how, what, and how fast we develop*. . . . Our coordinator *consulted us . . . instead of dictating* our very

action. . . . This gesture was . . . necessary *to ensure the success of the programme*. (2004, p. 187)

These teachers' feelings of ownership were integral to the belief in the success of the communities of practice to which they belonged; perhaps no one said it better than Susan, a teacher involved in the writing workshop project in Flint et al.'s 2011 study, who said, "In 22 years of teaching, no one has ever asked me what *I* wanted to learn" (p. 1163, emphasis added).

Teachers' voices are heard far too seldom in research outlining why professional development measures are effective. In these fifteen studies, they were heard, and they were clear in pointing to the five key reasons why they valued their experiences in a community of practice. The idea of collaboration – whether it is experienced in the sharing of ideas, in gaining knowledge from others, or in feeling supported by colleagues – was fundamental to the success of many communities of practice studied; along with that collaboration came motivation for professional growth, another key factor in the success of these communities. The resultant benefit to students was highlighted in several teachers' views, pointing to the value of communities of practice for both students and teachers. The lens turned inward with the final two aspects of communities of practice that teachers valued – the opportunity and push for reflection afforded by membership in a CoP and the self-directed nature of these groups. Other aspects were mentioned in single instances, among them the social aspects and friendships formed. And there were critiques as well, as some teachers stressed the need for openness and a non-judgmental atmosphere among members that they did not experience. Despite the

negative experiences recounted by teachers in Fraga-Canadas's 2011 study of language teachers and in Younger and George's 2013 work with a group of teachers in Barbados who were new to any form of collaborative practice, the overwhelming number of teacher comments found in these studies were positive, pointing to the idea that communities of practice are effective means of professional development in education far more often than they are not. The following comment by a teacher in DeMuelenaere's 2015 study of the dramatic turnaround of Camino Real elementary school perhaps sums it up best. After participating in the community of practice, she recounted her new attitude toward her colleagues and her practice in one sentence: "Let's not close our doors" (p. 176).

Chapter Four: Research Methodology

Because my experience with the Stonebriar community of practice was such a positive one, and because anecdotal evidence I gathered from teachers suggested their positive associations with these meetings, my goal in this study was to dig further and more formally into their impressions and perceptions about their involvement. If indeed they found their experience beneficial to their practice, I hoped to uncover the factors of the community of practice that they believed made it so. The fact that it had been over a year since I left Stonebriar gave me a perspective unlike one if I were still a colleague facilitating the group. We spoke of the group in past tense, as it no longer meets formally. We were all able to cast a reflective eye on the value of the group in the midst of reform. Now that the one-to-one initiative has been implemented, I was able to ask the teachers about changes then – and changes still relevant.

In my new position as Dean of Faculty at another independent school, designing effective professional development is my primary responsibility, and being informed by teachers themselves as to what worked and what did not has become incredibly useful as I strive to make PD relevant and meaningful for the teachers in my school. Looking at the meaning the teachers made then is interesting, but so too is the meaning they make today of their time in the community of practice.

As a doctoral student, I have been drawn to the work of Vygotsky and sociocultural learning theory since my earliest courses; this study and the community of practice itself are, thus, incredibly exciting and intriguing to me on that very basic level as well. To see a theory play out in practice, to test its merits in your own work, and to

be able to delve deeply into the results of that test are all opportunities that motivated me as I conceived of this study.

My original research questions in conducting the review of the literature on communities of practice in education were as follows:

- What meaning do teachers make of participating in a community of practice?
- What changes, if any, do teachers report in their teaching practice as related to their participation in the community of practice?
- According to the teachers, what aspects of the community of practice, if any, were most significant in prompting changes to their teaching practice?
- What meaning did I make of my experience in the group as both a researcher and as a participant-facilitator of the group?

In order to answer these questions in relation to the community of practice at Stonebriar, I conducted a qualitative study, as Merriam (2009) advocates qualitative approaches for studies that focus on “meaning in context,” and for studies that require interviewing, observing, and analyzing (p. 2). Since these were my primary modes of data collection, and since I was eager to find the “meaning in context” that teachers make of communities of practice, this was the approach that made the most sense. Also, qualitative research is that approach that seeks to “uncover the meaning of a phenomenon for those involved,” and the qualitative researcher is “interested in understanding how people interpret their experiences” (p. 5). This is exactly what I sought in my study: to uncover the meaning of the CoP to the teachers involved, and to understand how these

teachers interpreted their experiences. Therefore, qualitative methods in general seemed to best fit my purposes.

Methodological Approach: Case Study

Researchers differ greatly in their definitions of the term *case study*. Some consider it a methodology (Creswell, 2012); others say it is a heuristic and most certainly not a methodology (Van Wynsberghe & Khan, 2007). Baxter and Jack (2008) consider it an approach, and still others assert that a case study is the “end product of field-oriented research,” and neither a method nor an approach (Wolcott, 1992). Merriam (2009) sets it apart from other types of qualitative research and defines it as a form of qualitative research that is “an in-depth description and analysis of a bounded system” (p. 40). Thus, she refers to both the object being studied (the case) and the product (the study) in her definition. In this study, I use the term *case study* in this way; the *case* in my study is the group, the community of practice that involved Stonebriar’s teachers. While teachers are certainly at the heart of the case, and they are central to understanding the community of practice, the case study is not focused on the individual teachers; it is focused on the community of practice. It is also a *study* as Merriam describes, as it seeks to analyze the bounded system – the community of practice. Yin (2003) recommends the case study approach when seeking the “Why?” of a phenomenon. And to be sure, the *why* of the effectiveness (or not) of Stonebriar’s community of practice is at the heart of my questions. Thus, it only made sense to design my research study as a case study in order to listen to the teachers’ voices and uncover the why regarding the effectiveness or not of this community of practice.

Setting and Participants

The Stonebriar School is a private, independent, pre-kindergarten through 12th grade day school located in a suburban mid-Atlantic state. The coeducational school is comprised of two distinct campuses located approximately twenty miles apart, one serving grades Pre-K through 5, and the other serving grades 6 through 12. The upper campus (grades 6 through 12) is further divided into a middle division, housing grades 6-8, and an upper division, housing grades 7-12. The two divisions share common areas (dining room, library, gymnasiums), but the classroom buildings are separated by a breezeway. I conducted my study in the middle school division, where I was employed from 2007- 2015 as an English teacher and where I facilitated and participated in the community of practice.

According to the school's website, students from over 100 towns in two mid-Atlantic states attend The Stonebriar School, and the enrollment stands routinely at approximately 1100 students school-wide. In the middle school specifically, the enrollment is, on average, 400 students, or 100 per grade level. The average class size is 14, the gender balance is 52% male and 48% female, and 46% of the students are students of color. At Stonebriar, tuition and fees average a bit over \$40,000 per year. Fifteen percent of the student body receives financial aid awards, which are based solely on need. Those awards total over \$4.6 million and are funded by an endowment and by restricted and unrestricted donations to the school. Of those families who do receive aid, 46% are awarded over 91% of the tuition and fees.

In the middle school, there are 44 teachers, some of whom (described in this study as part-time) divide their time between the upper and middle divisions. Specifically, the faculty consists of five English teachers (two part-time), four math teachers, five science teachers (one part-time), six history teachers (two part-time), nine world language teachers (four part-time), two part-time drama teachers, two physical education teachers, three part-time music teachers, four art teachers (two part-time), one part-time computer science teacher, and three part-time health teachers. The middle school director oversees the day-to-day operation of the middle division, and the headmaster governs all three divisions of the school. There are two deans in the middle division, a dean of students and a dean of student culture; both deans teach part-time as well.

For my study, I collected data from the participants in the community of practice over the three-year period in which it operated. Table 1 lists and gives attributes of the participants, including the number of years they participated in the CoP, and if applicable, their reason for leaving the group. Those members who agree to participate in the study will be included.

Stonebriar's Community of Practice

In 2012, as a member of the faculty, I presented an overview of communities of practice, along with an invitation to form one, to the entire faculty at our closing meeting of the year (See Appendix A). As we were faced with implementing a one-to-one laptop program beginning in the 2013-14 school year, I wanted to facilitate a community of practice, in hopes that we could learn from each other and support each other during this transition. Very little professional development had been done to prepare us for this

change, and after studying communities of practice in my doctoral courses, I felt strongly that this would be an ideal situation to foster one. I held no leadership role in the school; I was an English teacher who had been a member of the faculty for four years. As I made clear in the meeting, there were no prerequisites or requirements for joining; it was an

Table 1

Participants in the Community of Practice, 2012-15

Name of Teacher (pseudonyms used)	Discipline	Gender	Involved in 2012- 13?	Involved in 2013- 14?	Involved in 2014- 15?	Reason for Leaving CoP (if applicable)
Laura Ripley (me)	English	F	Y	Y	Y	
Aly	History	F	Y	N	N	Moved
Millie	Science	F	Y	N		Moved
William	English	M	Y	Y	N	Sabbatical
Sophia	Math	F	Y	Y	Y	
Tim	Math	M	N	N	Y-N	Attended only one meeting
April	Science	F	N	Y	Y	
David	Science	M	Y	Y	Y	
Nick	History	M	N	N	Y	
Violet	English	F	N	N	Y	

Otis	History	M	N	N	Y	
Daniel	World Languages	M	N	N	Y	
Fiona	World Languages	F	Y	Y	Y	
Bert	World Languages	M	N	N	Y	
Penelope	World Languages	F	Y	Y	Y	
Joanne	Art	F	Y	N	N	Didn't feel tech was applicable
Isabella	History	F	Y	Y	N	Moved
Justine	World Languages	F	Y	Y	N	Retired
Olivia	World Languages	F	N	Y	Y	

invitation only. I presented a bit of research behind communities of practice, and then asked teachers to let me know if they were interested in participating. Of the full-time faculty, over twenty responded that they wanted to participate. At my division head's request, I limited membership to ten members only. His concern was that teachers might stretch themselves too thin between the community of practice and other commitments that were mandated by the school, so he asked me to limit the number involved to ten (not including me). I chose ten members, distributed across disciplines. I looked at each discipline – math, science, English, history, art, physical education, music, and world languages – and I attempted to choose participants from each one (if there were applicants). Not every discipline had applicants from which to choose, and some

disciplines had more representation than others, but I endeavored to keep the pool of teachers as balanced as possible. At the end of the process, I selected two English teachers (including me), one math teacher, two history teachers, two science teachers, three world language teachers, and one art teacher. Two of the teachers were male; the rest were female. Years teaching ranged among the participants from two to forty. The participants were also selected according to a range of computer expertise. I did not want the group to be only those who were proficient with educational technology. Instead, I tried to create a mix between those who were already using technology and those who were true novices. In addition, the head of campus weighed in on my selections as he did not want me to choose teachers who were already committed in several other areas. At first, because Wenger's original concept of CoPs stated that members could come and go freely, I felt a bit uneasy limiting and selecting; however, since the literature also stated that a community of practice could exist anywhere and in any form, and membership was still voluntary, I went forward with the director's request with less hesitance. I also assured him that the very nature of a community of practice included voluntary participation, and I was dedicated to preserving the essence of CoPs as closely as I could.

Over the years, from 2012-15, membership fluctuated slightly, mainly due to members moving away and faculty joining the group to fill those vacancies. (When two members moved away after the first year, I solicited volunteers to fill their spots by making an announcement in our closing faculty meeting for the year, and I gave preference to teachers from the same discipline or teachers who had expressed interest during the year.) In 2014-15, the last year of my teaching at Stonebriar, the director had

no more reservations about the size of the group, and he was impressed at the work we had done together; because of this, the membership was allowed to grow, and our final count stood at thirteen.

The community of practice at Stonebriar met at various times over its three-year existence. At first, we met during lunch on alternating A days (once every two weeks). Almost immediately, members expressed a desire to meet more frequently and at a less hurried time of day. We settled, finally, on meeting before school on A Days (once every seven days), as none of us taught first period on that day, and therefore wouldn't feel rushed or stressed about preparing for class. This remained our standing meeting time for years two and three. These before-school meetings also offered us more time to meet (35 minutes as opposed to 20-25 at lunch). Attendance was never required, as I wanted to stay true to Wenger's concept of communities of practice as non-mandated groups coming together because they *wanted* to, not because they *had* to.

In addition, our meetings never had a fixed agenda. Again, in keeping true to the definition of a community of practice, I did not want to create specific goals or mandates with the group. If it were to be a true community of practice, it could not cross over into the world of other learning groups by focusing on a specific "goal . . . explicitly on learning and building knowledge"; instead, its goal had to be "to do [our] jobs and to be comfortable within [our] professional identity" (Hoadley, 2012, p. 292). A tiny, shadowy difference perhaps, but this idea of unscripted, organic learning together is integral to the idea of communities of practice. Though it was true that our community of practice came together technically to "learn," our goals were never explicit or rigidly focused on

specific learning outcomes; further, our catalyst for coming together was undoubtedly to feel more comfortable in our jobs as educators leveraging the power of technology, and to do our jobs more effectively. Much like the Xerox technicians in Orr's 1990 study, we were standing at the metaphorical water cooler talking about how to tackle this problem of effectively using technology in the classrooms, and we were relying on each other to learn how to do so.

Data Collection

The case study I conducted focused on gathering data that yielded the most accurate picture of teachers' perceptions as to the effectiveness of the CoP – and the factors that contributed to it. Therefore, the sources of data I collected were from interviews with focus groups, follow-up individual interviews, artifacts (including materials from teacher practice and artifacts from our CoP meetings), reflective journals, and meeting notes. The meeting notes served as a data source in hopes to provide a narrative of the three-year life of the CoP. According to Merriam (2009), “interviews, observations, and documents” constitute the primary data sources in qualitative studies, so my data collection methods were in line with this (p. 18). Further, for a qualitative case study to be as reliable as possible, skilled interviewing techniques, careful and systematic observations, and carefully selected artifacts must be the goal of the researcher. I worked toward these goals by crafting and revising relevant, fair questions for both the focus groups and follow-up interviews, and by utilizing member checks and critical friend reviews to ensure my methods were both accurate and thorough (Merriam, 2009).

Before I began to collect data, however, I first obtained consent from Stonebriar to conduct this study, and I also obtained consent from the participants. I first contacted the head of the middle school, via email, and asked him to complete the required Site Approval Consent form (see Appendix D) for permission to perform the study there. I also completed the IRB at Stonebriar. Following that, I emailed my former colleagues at Stonebriar, explaining to them my project, and asked them if they would consider participating (see Appendix E). If they wished to participate, I had them sign the IRB-required adult consent forms (Appendix F). Focus groups and interviews were held off-campus in a neutral location; follow-up interviews were done via phone and email.

Focus groups. In this case study, I looked at the collective experience of the group – the community of practice – and the meaning the group made of that experience. Moreover, I framed this study in sociocultural learning, situated learning theory, and community of practice theories, all of which posit the interaction of individuals as integral to the learning process. In light of those two conditions, then, it seemed fitting to begin data collection with focus groups. Having the members of the community of practice discuss *together* what the experience was like provided me with a much richer picture than speaking to members alone, for their comments were in conversation, with each one's thoughts and reflections informing the other's. Focus groups allow topics to surface more organically than if questions are asked to specifically address them; often, certain recollections by one member may spark otherwise forgotten recollections by another. In addition, differences of opinion may serve as fertile ground for healthy discussions allowing even more perspectives to surface. In true collaborative and

community fashion, these focus groups I facilitated depicted the true essence of their experience.

Interviews. Following the focus group interviews, I chose five teachers from those groups to interview about their individual experiences. I chose members who, from their contributions in the focus group conversations, represented a range of experiences and perceptions of the community of practice. I followed up on comments these members made in the focus groups, I asked about changes in practice over time, and I clarified for myself some of their observations. There were questions to guide the interviews; often, however, they became conversational about the group and their practice. An interview, according to Merriam (2009), allows the interviewer to “enter into the other person’s perspective” (p. 88). The semi-structured interviews that I conducted allowed for a “flexible use” of questions and also allowed me the freedom to probe further into each response as the situation warranted (Merriam, 2009, p. 91). The questions were crafted carefully, with an eye on my research questions and the concept of a community of practice to guide me. For instance, the concept of a community of practice includes a commitment to a domain. One question in my interview protocol focused on this by asking the respondent to tell me about a typical meeting’s focus and format. This, without leading the respondent, helped me get to the heart of the subjects of commitment to practice and teaching more effectively (the domains we all shared) that the community of practice ideally centered around. Questions focused on my research questions were also included; for example, one question read, “Tell me about the effect, if any, that being a member of this community of practice had on your teaching practice.”

This distinctly referred to my third research question: “According to the teachers, what aspects of the community of practice, if any, were most significant in prompting changes to their teaching practice?” According to Seidman (2006), we make meaning by telling stories, and interviewees select details from their memories to tell those stories. Those stories are invaluable to the researcher in understanding the subjects’ perspectives (p. 7). My participants’ stories were likewise invaluable; each group offered a fresh perspective, a different set of memories, and critical pieces of information in helping me identify the aspects of the community of practice that were most significant to them.

Artifacts. As evidence of how teacher practice is affected by membership in the community of practice, teaching artifacts were gathered from participants when available. For example, David indicated his/her practice has changed, and he gave me digital access to a class activity that included technology he had not used before. From Fiona, I saw a lesson plan that included a new technology application. April shared her Google Classroom site. These were valuable in illustrating changes in their practice.

Interview responses guided me in knowing when to request these materials from the participants. According to Merriam (2009), artifacts should serve as one of the primary sources of data for a qualitative study. They are more objective than personal interviews, and they can be beneficial in corroborating claims made by interviewees as well. Merriam makes clear that such artifacts “exist independent of the research agenda, they are . . . unaffected by the research process and grounded in the real world” (p. 156). Thus, they can be an unbiased, authentic, and valuable source of information for the researcher.

Meeting notes. As mentioned before, meeting notes I kept throughout the life of the community of practice helped in creating a narrative of the experience from its origin and first meetings to its final meeting in 2015. These were useful when a teacher, in an interview, mentioned a specific tool that was discussed or demonstrated in a meeting. With my notes, I was able to put the meeting in chronological context.

Triangulation

The process of triangulation by qualitative researchers is used to increase the validity or credibility of findings (Patten, 2009). Checking what someone claims in an interview against what is observed in the classroom, or against documents the person has produced, helps increase the credibility of what they have claimed, and just as important, the reliability of what the researcher claims to find. One way I triangulated my findings was by using three methods of data collection, as Merriam (2009) advises: focus groups, individual interviews, and artifacts (p. 216). In this process of methods triangulation, the data was corroborated, and further dependability was ensured. In addition, I conducted follow-up interviews and member checks to help ensure internal validity (p. 216-7). Member checking, according to Patten (2009), is “based on the idea that the participants are ‘members’ of the research team” and as such, they “review the results of the analysis” in order to determine whether or not the researcher’s reports “ring true” (p. 158). If needed, the descriptions must be adjusted to match more closely the intent of the participant. In one instance, for example, I called Otis to read something I had written about his comments to ask him if it accurately reflected what he meant. I asked him to elaborate on and clarify his meaning, and after our discussion, I was able to more fully

understand the spirit and intent of his remarks. Thus, not only do member checks verify the accuracy of what I (and other researchers) may report in the data, but they can also, as in this case, add richer meaning to the original statements.

Data Analysis

Though it is true that I entered this study with a list of characteristics deemed effective in communities of practice from my review of the literature, I used a grounded theory approach in analyzing my data, and as such, “revised, modified, deleted, or expanded it to include new codes” and categories as they arose from it (Saldana, 2013, p. 144). According to Charmaz (1996),

Grounded theory methods consist of a set of inductive strategies for analysing data. That means you start with individual cases, incidents or experiences and develop progressively more abstract conceptual categories to synthesize, to explain and to understand your data and to identify patterned relationships within it. (pp. 27-28)

As her definition states, I looked at the data collected in order “to synthesize, to explain and to understand” it, and I was able to recognize clear “patterned relationships within it.” In using a grounded theory approach, I entered the interview process with an ear to discovering themes as they developed in an effort *not* to prejudice the findings toward what had been found already in other studies.

As I conducted focus groups and interviewed participants individually, I tape recorded the conversations. After transcribing the data and setting up structural codes to align with my research questions (Saldana, 2013), I analyzed the transcripts using these

specific codes. According to Saldana, structural codes are codes that “should be determined beforehand to harmonize with your study’s framework and to enable an analysis that directly answers your research questions” (p. 49). Thus, with an eye on my research questions, I looked through the data for responses that spoke to the questions of how teachers made meaning of their experiences, if and why practice changed, and what aspects of the community of practice were most instrumental in bringing about these changes. After comments were labeled in this way, I then looked for emerging themes related to each research question topic, and I used another first-cycle method of coding, descriptive coding, when these emergent themes became evident. Descriptive coding “assigns basic labels to data to provide an inventory of their topics (Saldana, 2013, p. 66). For example, seeing the phrases “didn’t feel like a moron,” “I was able to ask questions that were basically stupid,” and “I didn’t feel like I was getting behind with said software” all related to an emerging theme of feeling *safe from judgment*. After seeing themes further emerge from these codes, I then regrouped statements into larger categories, and assigned pattern codes to each one. For example, the themes of teachers feeling *safe from judgment*, *safe from administrative repercussions*, and *safe to critique the programs* were all grouped under the pattern code of *safe space*. These pattern codes, according to Saldana, are an effective second-cycle coding method used to “pull together a lot of material into a more meaningful and parsimonious unit of analysis” (2013, p. 152). After these pattern codes were assigned, I then created a table with each phrase or sentence in one column, and the corresponding structural and pattern codes in adjoining columns, so that I could visualize the scope and number of the comments and

themes. Table 2 shows a small snapshot of the comments and codes assigned to the data from Focus Group 1.

Going into the data knowing what research studies had shown, I feared, would predispose me to trying to match (or not) those findings. However, these approaches proved ideal for looking closely at what was there, not what I expected to see. Watching data come together as teachers' conversations unfolded on the page was exciting; uncovering the themes with a sense of discovery was likewise rich and rewarding. After following these coding procedures, I then turned to an analysis of the data in hopes of adding to the collective teacher voice as to what makes the CoP model an effective means of professional development.

Table 2

Research Coding – Structural and Pattern

Quote	Research Question – Related to which?	Topic/PATTERN
a great opportunity to take the stuff that I'm already fairly comfortable with, expand on some of the things that I do know how to do and also explore some of the stuff that I don't know how to. And it really was extremely helpful for that.	Meaning	exploration FREEDOM TO PLAY
I needed to be pushed to try new things.	Meaning	Pushed, motivated FREEDOM TO PLAY
we're not expected to come up with anything at the end. You know, we're not expected to unmm, produce something. It's just, sort of,	Aspect of cop Meaning	Freedom, no expectations FREEDOM TO PLAY Collaboration COLLEGIAL/CONGENIAL

here's a group of colleagues and we are working together.		
...it set up a sort of "What do we want to do?" and if it doesn't work then we could sort of put it aside and focus in on something else that does.	Meaning and Aspect	organic – ORGANIC RELEVANT LEARNING free/open agenda OPEN AGENDA APPROACH
and I could ask questions which were probably basically stupid	Meaning	No judgment SAFE SPACE
I was sharing, and that was so great for me. I – I enjoyed that.	Meaning	enjoyed it ??? collaboration COLLEGIAL/CONGENIAL

Positionality

Mentioning my position at Stonebriar as a colleague who worked closely with those from whom I collected data is a vital step in writing the research findings, for my relationship with the participants certainly goes beyond the bounds of "researcher" only. Much has been made in the literature about the "insider/outsider" dichotomy and the role of the research- participant in qualitative research; concerns about bias, influence, and the skewing of facts are at the forefront of many skeptics' minds, and assuring neutrality is a challenge when the researcher is involved in the case she is studying (Mercer, 2007). To be sure, there is no clear consensus on the advantages vs. the disadvantages of being a participant and researcher. Member checks and triangulation were steps taken in order to ensure that the findings were not skewed. However, as a colleague for seven years with those in this research study, it is possible the teachers told me what they thought I wanted to hear; it would be naïve to think otherwise. The fact that I was not in any leadership

position at Stonebriar will hopefully help in eliminating any skepticism as to the truth of the findings; however, I am aware that some may still exist. So, to guard against this, I strived in each focus group and interview to ask questions that brought forth every opinion, not just those that iterated the positive aspects of the CoP. In focus groups, I probed into responses with “Does anyone disagree?” or “Did anyone have a different experience?” If two people agreed on a perspective, I pushed their thinking and the thinking of others, creating a safe space for all voices and all points of view. I made clear at the onset of each meeting that I was seeking all perspectives – positive and negative – so that I could report findings that were as authentic as possible.

My goal in this research is to add to the body of studies that highlight the teachers’ voices with regard to what experience in a community of practice offers them in their professional lives, and what factors at work in the CoP are most significant in creating that experience for them. However, the particular setting and situation I studied may offer even more than that. The study also focused on teachers’ professional work in a private, independent day school, which is a world quite different than many of those in the current body of research. The community of practice was not mandated, nor was it part of any school-wide or administrative push for professional learning. It was a true grassroots effort, begun because of a need for new pedagogical skills and knowledge. It was interesting to see if these variables added unique findings to the existing picture of communities of practice in education.

Chapter Five: Findings

As teacher voice is rare in the literature on communities of practice in education, I sought to uncover the perspectives of the teachers regarding their experience in Stonebriar's community of practice. In focus groups, email conversations, and one-on-one interviews, I listened for comments that could answer my specific research questions about the meaning they made from their time in the group, listening especially for how they viewed the overall experience; how their membership held value for them and their teaching practice (if indeed it did); and how they viewed the community of practice, both in the context of their lives at Stonebriar and as teachers in general. I asked about the impact the group had on their practice and what changes, if any, they believed were brought about by their membership in the community. Finally, I questioned the teachers about which particular aspects of the community of practice, in their eyes, prompted those changes they reported.

What follows in the ensuing sections of this chapter is a summary of the teachers' responses that answered each of the three research questions that guided my study:

- What meaning do teachers make of participating in a community of practice?
- What changes, if any, do teachers report in their teaching practice as related to their participation in the community of practice?
- According to the teachers, what aspects, if any, of the community of practice were most significant in prompting changes to their teaching practice?

As I present the teachers' views regarding their experience in the community of practice, I do so through the lenses of sociocultural learning theory, situated learning, and Wenger's community of practice theory.

The Meaning Teachers Make of Participating in a Community of Practice

The Stonebriar community of practice originated in 2012 when the school announced it was shifting to a one-to-one laptop environment. In such environments, students are expected to have laptops in class at all times, and teachers are expected to harness the power of technology in their daily instruction. As we teachers at Stonebriar had not experienced any professional development to prepare us for teaching in a technology-rich environment, we came together voluntarily once every seven days (once per teaching cycle, on "A Days") in the mornings before school to share ideas, success, and challenges around technology.

In looking to uncover what meaning the teachers made of their time in the community of practice, I define meaning as how teachers viewed their experience – and what they took away from their time – as a member of this group. In an effort to learn this, I asked open-ended questions (e.g., "Tell me about your time in the group") and listened for themes to emerge. What follows is an analysis of the comments teachers made in focus group interviews, one-on-one conversations, and email conversations regarding their experience in the community of practice, and the themes that became evident across the data.

A Safe Space

In their near ubiquitous voicing of appreciation for a safe, collaborative space where they could critique mandates about technology applications, question and “not feel like a moron,” or express their relief when programs felt “less frightening,” Stonebriar teachers loudly and clearly articulated a need for a place where teachers could voice uncertainty and honest dialogue. Teacher isolation has long been a detriment to school reform and improvement (Lortie, 1975; McLaughlin & Talbert, 2007; Snow-Gerono, 2005). Teachers can find looking at and questioning their own personal practice difficult (Snow-Gerono, 2005); for discourse around changing practice to occur, for good, hard looks at one’s practice to happen, there must be an environment of mutual trust and support, “a safe environment in which sharing, daring, and support become commonplace” (Hadar & Brody, 2010, p. 1649). A troubling addition to these findings is that in a 2005 study by Snow-Gerono, she concluded that “American traditions of teaching and hierarchical structures have not promoted or embraced the idea of teachers taking up a stance of uncertainty based in pursuit of their questions (p. 242). And further, “it is not always, not even usually acceptable in schools to ask questions about mandates handed down from administrators (p. 242). In the case of Stonebriar’s teachers, this was all too apparent in their feelings when even mid-level administrators appeared in the morning community of practice meetings.

The teachers’ references to this idea of a “safe space” seemed to have two slightly nuanced meanings: 1) Teachers felt that the meeting space was one in which they could share struggles and perhaps even fail at their different experiments with technology with

supportive peers in an environment free from worry about feeling inadequate or incompetent, and 2) the community of practice provided a place where ideas, critiques, and feelings of frustration could be voiced openly without fear of administrative repercussions. Thus, the space was safe, as teachers were free from both internal pressures placed on themselves – they could openly admit when they did not understand something – and the external pressures they felt from administration if they critiqued or expressed frustration at mandated changes or school policies. This feeling of safety in the meetings, whether in not feeling judged by peers or administrators or in feeling safe to say whatever was on their minds, was integral to the way several teachers viewed their experience in the community.

Freedom from judgment. Conscious of not wanting to “feel like a moron when I didn’t understand it,” Fiona liked the freedom of trying out the technology in the safe environment of the group, and William found the ease into the various programs and applications, with the support of those around him, to make the transition into teaching with technology “not scary anymore” (personal communication, August 24, 2016). Thus, the way teachers like Fiona and William – among others – experienced the community of practice was as a safe space to grow, to learn, and to experience the school’s shift to a one-to-one environment in the company of supportive, non-judgmental peers.

For collaboration to occur successfully, members of any team must feel safe; according to Langer and Colton (2005), though, “collaboration does not happen automatically. Many schools have not developed a culture in which teachers can safely take risks . . . and engage in dialogue” (p. 5). In the community of practice at Stonebriar,

however, that culture was created. Perhaps the most overt expression of this need for a feeling of safety was expressed by Fiona, who said, “I was looking for really sort of a safe space where it was collaborative where I could hear what other people were doing and not feel like a moron when I didn’t understand it” (personal communication, August 29, 2016). She not only articulated clearly the need for collaboration, but she also spoke of the desire for a safe space, even calling it by name. Fiona, on several occasions, spoke of the need to “not feel like a moron,” needing a place to not understand without feeling inadequate or judged. Penelope echoed Fiona’s sentiments when she said, “[You] listened to what other people were doing – their ideas – asked questions, and did not feel you’re the only one who doesn’t know how to do this. Just kind of sharing and feeling very comfortable – that appealed to me” (personal communication, August 29, 2016). Lave’s idea of the “periphery of participation” suggests that oftentimes, learners will be on the outside of expertise, watching and becoming more knowledgeable as they interact with experts or “more knowledgeable others.” This periphery did not seem to be an uncomfortable place to be for Penelope or Fiona. In fact, to Penelope, it was “comfortable” to be among others in her situation of “not knowing.” What was particularly meaningful to her about her participation was being among those who, like her, were on the periphery, and with whom she could feel comfortable with in their mutual exploration of technology and new pedagogies. The anxiety felt among teachers was already present due to the shift to a one-to-one environment with little professional development to prepare them; the added piece of anxiety came from the steep learning curve several faced when it came to technology. Whether it was in the fear of “feeling

like a moron,” or the feeling “like you’re the only one who doesn’t know how to do this” (personal communications, August 24 and 29, 2016), the anxiety, in varying degrees, was very real among the teachers.

Further, for Otis, the absence of administrators was key. He expressed that, “[I]t wasn't like somebody from the tech department was sort of leading the group which might've made me feel as though I were behind if I weren't getting aptitude with said software or whatever” (personal communication, August 29, 2016). Having “not done that in a while,” the safe space seemed vital to Otis’s development and learning as a teacher. To be sure, Otis did become adept at certain learning technologies, and he was chosen to demonstrate new technology applications for classroom use in a “Best Practices” professional development day in the spring of 2015. Different from Fiona and Penelope who found the safe space integral to their collaboration with others, Otis saw it as instrumental in his own development and feeling comfortable to try new things with the end goal of “work[ing] a little harder” (personal communication, August 29, 2016). April also valued the freedom afforded her in the group to “ask questions which were probably basically stupid” among “people I knew . . . in a nice atmosphere. . . . I didn’t ever really feel like I was being talked down to” (personal communication, August 24, 2016). David added that “to be able to say ‘I tried this and it was a complete disaster and be completely comfortable saying that was really very comforting, very helpful” (personal communication, August 24, 2016). The “nice atmosphere” of people April knew who did not talk down to her, whether they knew more about technology or not, helped April in her explorations with new applications. Likewise, David felt “completely

comfortable” and saw the atmosphere as “helpful” in his work. He explained it early on in the group’s inception by saying, “The structure of the group enables us to learn whatever . . . in a way that I have never experienced before. . . . And I think that the specific skills we are developing are sometimes secondary to the structure in the way in which the group works. It enables us to learn all those things without feeling like we’re under the gun, and it almost doesn’t matter what those skills are” (personal interview, March 5, 2014). Like April, David valued the freedom and structure of the group equally or even more so that the content of the meetings themselves. Breaking out of the isolation that often accompanies teaching, and doing so in a supportive, collegial atmosphere, is rare for many teachers. When opportunities to collaborate are rare, it stands to reason that comfort and trust are not easily established. What April and David valued were those two aspects of the group, and David noted that these attributes were often missing in traditional professional learning opportunities.

Not only was the freedom from judgment good for easing anxiety in teachers as they learned new ways to teach, it was also effective in motivating teachers to learn and do more. To Otis, the safe space was critical to his getting “out of my comfort zone a little bit more . . . I’m supposed to do that. And I think the safe space to do that was very productive, so it kind of challenged me to try new things and work a little harder because I probably hadn’t done that in a while” (personal communication, August 29, 2016). In Otis’s case, the space had the added effect of breaking down barriers and challenging him to try new applications and push himself to even work harder.

To William, a self-proclaimed slow-mover in implementing technology in the classroom, the benefit of “being with a group of people willing to share their frustrations and successes . . . made exploring less frightening” (email communication, May 7, 2014). In preparing with the group as to what to share with the full faculty about the community of practice in closing meetings for the year, William shared, “I’m less scared now” (meeting notes, June 2014). Thus, Stonebriar’s teachers, for myriad reasons, felt this sense of safety with peers was one of the most integral, valuable aspects of their membership in the community of practice.

Freedom from administrative oversight. Another way teachers felt safe in the community of practice was in the way they felt free from administrative oversight. Perhaps the bluntest expression of this same sentiment came from David, who said, “I like being able to make those mistakes and not have it come back around to bite you in the ass” (personal communication, August 24, 2016). David felt that safety meant more than feeling inadequate; in this case, he felt safe from administrative repercussions. April felt the same way in the “bit of a safety net in the sense that there were people I could go to and not feel at all uncomfortable” (personal communication, August 24, 2016). She did not, perhaps, fear repercussions; however, she felt the “safety net” was nonetheless there to avoid “uncomfortable” situations. When a department head showed up unannounced at a meeting – a department head from a department other than hers – April confessed that the feeling created was “constrained” and that on that day, she “didn’t say one or two things I might’ve said because of individuals who were around” (personal communication, August 24, 2016). Engagement is vital in any professional learning

opportunity; if one does not engage, then change is virtually impossible – as is student improvement. Because April did not engage when the department head attended the morning meetings, her chances of changing practice and improving the learning for her students were thwarted.

April's sentiments, of course, illuminate another aspect of communities of practice – that of selected membership. In a true community of practice, membership is open and not fixed; members are free to come and go as they please. Yet the idea of a department chair simply showing up at a meeting was an unpleasant surprise to many of the group's members. Though he had not been selected to be an original member of the community of practice, in the third year of its existence, he appeared unannounced and became a regular attendee. Wanting to keep true to Lave and Wenger's definition of the community of practice, I, as the group's founder and facilitator, did not want to tell him he was not welcome. However, even in Lave and Wenger's original framework, which included examples like Yucatec midwives, Alcoholics Anonymous members, and band members, membership in all these groups implies a qualifying condition: a midwife must be a female skilled in and continuing to learn the art of midwifery; an AA member must be a committed, recovering alcoholic; and a band member must show proficiency in playing an instrument. True, in most cases a member can come and go as desired, but membership is not a given for just anyone. In the case of the community of practice at Stonebriar, membership was open to classroom teachers only; no administrators were invited to join, as the goal of the group was to discuss integrating technology into daily instruction. The department chair "crashing the party," so to speak, and attending a

gathering of the community of practice, unannounced, negatively affected the sense of safety April felt. Otis, too, reacted to the presence of another mid-level administrator – the technology integrator – at meetings. Though he did not feel silenced as April did, he appreciated that she did not lead the meetings. He “appreciated the fact that she took a very secondary role . . . I think that helped it to be a safer space, so it wasn’t like somebody from the tech department was sort of leading the group which might have made me feel like I was behind if I weren’t getting aptitude with said software or whatever” (personal communication, August 29, 2016). Because a school leader could silence a teacher or simply make teachers feel inadequate, membership was critical in maintaining the sense of safety so valued by the members. The safety to ask questions and learn freely in the supportive, non-judgmental environment of the community of practice was one of the predominant ways members found meaning in their time together. As April put it, “Just having someone who I knew in a place that was supportive – it was just so great” (personal communication, August 24, 2016). To be sure, that aspect of the community needed to be guarded, and in guarding it, membership needed to be selective.

A Collegial and Congenial Experience

So I’m sitting there with Fiona during a free [period], and we are hashing out what we talked about in the meeting two days ago – or I bump into April or I bump into Otis or whoever it is or I, you know, Daniel talked about this thing and I think that’s interesting, so I’ll go find Daniel. And I’ll sort of follow up with him sort of one-on-one. . . . So if I go into Daniel’s room and say, “You know, you talked about this and I want to follow up,” he will say, “Great! Let’s do it!”

and that's the way everybody else is as well. I think it was more than just the A-day morning meetings. The overall experience was knowing "Here's my group of people that I could go to. (David, personal communication, August 24, 2016)

David's comments above echo the feeling of safety; feeling comfortable to go into another teacher's room – ending the all-too-common isolated nature of teaching – and ask questions about practice is certainly evidence of a safe learning environment. But, David's reference to "my group of people that I could to" hints at another aspect of the meaning teachers made in the community: being part of a collegial and congenial workplace.

According to Evans (2012), "Amid all the controversy about how to improve America's schools, the importance of strengthening collegial collaboration among teachers has drawn almost unanimous support" (para. 1). In the Stonebriar community of practice, the teachers almost unanimously cited both congenial and collegial relationships (though they may not have used those exact terms) as instrumental in their valuing of the group.

The distinction between collegial and congenial relationships is interesting to note here, as many schools equate a congenial environment with a collegial one. The two are not the same. In a congenial environment, teachers get along, are warm and friendly, and are cordial and supportive (Evans, 2012, para. 4). Collegiality, according to Evans (2012), "denotes a collaborative work culture in which teachers talk regularly and seriously about their practice, observe one another's work, jointly design and evaluate curriculum, and teach one another what they know about their craft" (p. 232). According

to Roland Barth, the founder of the Principal's Center at Harvard University, it is the collegiality, the focus on developing their work and improved performance, that "is the least common form of relationship among adults in schools" (1989, p. 230). Though these collegial opportunities, according to Evans, "enhance job satisfaction and performance" (p. 232), teachers cite a lack of time as a stumbling block to collegial relationship-building or professional development; in fact, some teachers see time with other adults as intrusive upon their primary goals in their jobs – they thrive in the company of children and adolescents, and it is here they find fulfillment in the workplace (Evans, 2012, para. 10-13). It is an unfortunate situation that many teachers face: The lack of time to focus on anything more than teaching, students, and the classroom leaves many teachers' work lives devoid of collaborative, collegial conversations.

Unfortunately, many teachers do not see this as detrimental to professional growth; they do not value collegiality because they do not regularly experience it. But once this cycle is broken, as seen with the Stonebriar community of practice, teachers may learn to welcome the opportunities, and many may be abundantly enriched by the experience. According to Wenger (2011), a community of practice also provides for its members a common experience – what he refers to a practice – or the shared repertoire of experiences, language, tools, and ways of doing things (p. 2). This common experience creates a sense of community and allows for collaboration – and collegiality – among its members. Teachers in the Stonebriar community of practice found meaning in their collaborative relationships with others for various reasons; some found the value in sharing practice, supporting colleagues as they attempted new pedagogies or tried out

new technology applications. Others found the value in simply being a part of a community, in the sense of belonging the group afforded them. The collaborative, collegial relationships may not have produced a shared practice per se, or a body of work common to teachers; instead, teachers used the sharing of practice as a foundation for improving their individual performances in the classroom. Teachers also saw tremendous value in the congenial aspects of collaboration – the sense of belonging, the laughter, and the supportive relationships – that were fostered in the group.

One of the ways the group experienced the sharing of practice was in working through the kinks and wrinkles of new platforms together or in learning new technologies from each other. This spirit of collegiality that was created in the community of practice meeting on A-Day mornings carried through to the daily interactions of the members as well. As David remarked, “The sort of less formal feel of it, I think, made me more willing – more likely – to engage with my colleagues outside of those meeting times. A ‘Hey, do you have ten minutes to talk about this?’ kind of thing because we’re both in this; we are both part of this group. . . . We have that sort of thing in common [and it] really enabled me to do that more frequently” (personal communication, August 24, 2016). David felt the connections outside the normal meeting times were made easier; the community of practice’s boundaries were thus not limited to those interactions on A-Day mornings. Along with David, April also felt the connections strengthened with others. April added, “It’s so nice to know that there are people around with whom you have the shared experience; the shared experience allowed me to know who to ask, who perhaps was doing what and really gave me a little bit of a nudge in the right direction”

(personal communication, August 24, 2016). Both David and April echo exactly Wenger's own focus on the "shared experience" which allows communities of practice to thrive.

Knowing "who to ask" was important to both Penelope and Sophia as well, who valued the collaborative aspect of the group for that reason, and more specifically, because they could go to peers, not administrators or members of the technology team who were unfamiliar with everyday classroom practice. As Penelope put it, "It made me feel that we can do this, work through this together, and if I have questions I know that there are resources, and I don't have to run down [to the tech offices] to anyone" (personal communication, August 29, 2016). Sophia echoed Penelope's feelings, saying that one thing she valued most about the group was "knowing that you can always find a group of colleagues who will support you and help you troubleshoot difficulties you may be having in technology and other aspects of your teaching" (personal communication, November 10, 2016). Here, Sophia noticed something more: the collegial bond that the community of practice members shared went beyond the boundaries of technology tools and applications. She found support in "other aspects of . . . teaching" as well; the collaboration went beyond its original intent. Also, in her view, "you always knew there was someone there to fall back on and try new applications with," but "the school was not always supportive of applications they weren't pushing," so to Sophia, that support was even more critical. As she and other teachers in the group experimented with different tools, Sophia knew that she could find support; she knew that this group would not be constrained by school mandates. Rather, Sophia knew that, in the community

members, she could find support in whatever she decided to try in her classroom. To Sophia, the group was made up of colleagues who would “support you no matter what the work is you are doing” (personal communication, November 10, 2016). In what Sophia and the others experienced, the sense of collaboration created in the community of practice did not stop at 7:55 a.m. on A-Days when meetings were adjourned, nor did it stop with integrating technology applications in the classroom.

Collaboration did not, however, mean only the sharing of or support with technology or classroom practice. With the collaborative experience, teachers formed relationships and existing relationships deepened; in short, congeniality was fostered. These congenial relationships were at the heart of what several members found among the most important aspects of the group. Fiona even went so far as to downplay the technology aspects of the group in favor of the more affective benefits it offered, saying, “Yes, the technology was great, and yes, there are definitely things I’ve used. Even if I was going to sit in a meeting and think ‘I don’t know what the hell I’m gonna do with this,’ like I would enjoy the company of all of you and the conversation that was being had. The . . . bond that you get is really something that to me is in some ways more important” (personal communication, August 29, 2016). Though Fiona was a team leader on the faculty and a teacher who taught a heavier class schedule than most others, she still – even if she did not grasp all the technology – valued her time in and the relationships formed in the group. April, a senior member of the faculty, echoed Fiona’s sentiments. To her, “it was another way of being part of the community,” and even after the community of practice disbanded formally, she remarked, “the spirit has continued”

(personal communication, August 24, 2016). To her, the meetings were not “all business,” but rather a blend of learning and, in her words, “relationships forged,” that created a true spirit of collaboration and congeniality (personal communication, August 24, 2016).

It was Daniel, however, who was most open about the oft forgotten value of community. Daniel, a new teacher to the school, felt that

one of the things that was really powerful about it for me as a brand-new teacher to the school was helping me make connections with other teachers. You know, I think there isn't enough credit maybe given to the informal connections building community. You know, I have a little kid – I can't go hang out at a bar with new teachers after school, but like hanging out with teachers at 7:30 in the morning and learning about technology is actually a way for me to develop interpersonal connections which is really important for me as a person brand new to the school.

(personal communication, August 29, 2016)

Daniel's observation touches upon a social aspect that could easily be overlooked by those veteran teachers with long-standing friendships in the community, or by other teachers with the freedom to explore friendships and connections outside of the school day. Daniel's family obligations precluded him from forging ties outside of school, so the collaborative piece of the community of practice was of vital importance to him in developing friendships and a sense of belonging in the community. Even in 1975, Lortie warned against a “too casual view of the significance of peer relationships” (p. 192). Research over the years has been mixed as to how critical peer relationships are in the

educational workplace, as several researchers have cited the importance of congenial relationships, yet maintain they are not imperative in school improvement (Ihara, 1988; Sergiovanni, 1990). However, others have pointed to the tremendous value of congeniality. According to Nias (1998),

the welfare of the children [is] intimately bound up with the well-being of the adults who worked with them. If the latter did not feel accepted as people in the staffroom, they would not be fully at ease in the classroom. Besides, it [is] philosophically inconsistent to treat children as ‘whole’ and ‘individual’ but to ignore the personhood of their teachers. (p. 1262)

Further, Jarzabkowski (2003) stresses the importance of informal relationship building among teachers, for “the development of a trusting, open and affirmative environment” is “necessary for mobilizing schools to be their very best” (p. 20). Hoadley (2012) describes the community of practice phenomenon as one of “low institutionalization and high connectivity” (p. 294). To Daniel, it was a powerful piece of the group’s significance to him. Daniel’s comments validate the fact that social relationships in the community of practice were of great importance. To Daniel, and to others, this type of collaboration, which offers a sense of belonging and connectedness, is as important a type of collaboration as discussing teaching practice and new pedagogies.

We learn by watching others, by talking with others, by adapting and adopting others’ ways of doing things, and by negotiating with others. We make meaning in collaboration. Collaboration is fostered and enhanced by congenial and collegial relationships in the workplace. As is evidenced by their comments above reflecting the

importance of these types of relationships as part of their positive experience in the community of practice, the teachers at Stonebriar made meaning – and learned – in exactly this way.

Freedom to Play

One of the most frequent themes to emerge from the teachers' discussions about their experience in the community of practice was the idea that their time in the group allowed them the freedom to play. I define "freedom to play" in two ways. First, teachers were able to discuss and experiment with various learning applications and software programs, with no expectations or pressure to implement them or to make them fit into their instruction; they could explore pedagogical technology freely. Secondly, this freedom meant that members of the group were free to discover and experiment with any technology they chose with a sense of exploration and play. The time spent in the group was for exploration, for conversation, and for learning. Distinct from risk-taking, this sense of play meant that, for the teachers, time in the group gave them the opportunity and freedom to simply explore the applications with each other to see how tools had worked for others, and to play with the possibilities for their own classrooms in the small, intimate environment of the community meetings. They were never pressured to implement any one tool; rather, they explored and learned together, and when the time was right for them, they might choose to use a tool or application. As in Lave's (1991) idea of the periphery of participation, members learned and slowly integrated themselves into the "community" of those more skilled with technology implementation.

Three teachers in the Stonebriar community articulated the idea similarly: the freedom experienced in the group, separate from mandates and imposed initiatives, was a driving force in their exploring and learning new technologies. Otis articulated this as, “People started to come up with their own topics they were interested in exploring and modeling, and I think that’s when [meetings] really took off” (personal communication, August 29, 2016). David, a veteran 6th grade science teacher, also voiced this idea that the open nature of the group “sort of mentally freed me up to explore things” (personal communication, August 24, 2016), and Penelope and Fiona added that, along with that freedom, “you didn’t feel obligated to do everything which is “not how it feels when you’re at a tech workshop” (personal communication, August 29, 2016). Teachers felt at liberty to choose the applications that seemed relevant and timely to their work and explore them at their own pace. The traditional professional development model is one that is often prescribed and often delivered in a workshop format. Yet, here, topics were self-selected and the pace was never dictated. As Otis mentioned, teachers could also bring in their own topics, whether it was an exciting new tool to share with others or a new program they wanted to explore. And David added, “if it [didn’t] work out, it [didn’t] work out; we [could] explore something else instead” (personal communication, August 24, 2016). Daniel, a first-year teacher at the school, elaborated on this idea even further, and the rarity of this freedom:

We could bring our questions right to a community to explore them as opposed to having people who were quote-unquote experts asking the questions and having us just figure out the answers. . . . We brought our questions, and it was one of

those rare opportunities where, as adults, you have a chance to ask questions . . . and we keep coming back to this word – *organically* – in a *childlike* way about things that are interesting or we’re curious about and explore them, and it’s rare to find a space for that. (personal communication, August 29, 2016, italics added for emphasis)

Daniel not only reiterated what other participants said in terms of a sense of exploration and play, but his phrasing of it as a “childlike” sense of curiosity and exploration gets at the very essence of what the teachers were articulating. In comparing the community of practice experience to a book he had read over the summer, *Beautiful Questions*, Daniel explained, “One of the things they talk about in this book is that kids are asking questions all the time, and that younger kids asked lots of questions. . . . [t]he beauty of the young child's question is that it's not directed by or not in response to an adult telling them like, ‘You have to study this.’ It's like curiosity” (personal communication, August 29, 2016). The Deweyian connection here is unmistakable. Rather than learning passively, learners, according to Dewey, were “better served if they took an active part in the process of their own learning” (Wheeler, n.d., para. 3) and if they were able “to discover for themselves and develop as active and independent learners” (Wheeler, n.d., para. 5). As Daniel made clear, there were no mandates or didactic methods of teaching at work in the community; rather, it was inquiry that drove the process, and as Dewey advocated, learners took an active part in their learning in the community of practice.

Also, teachers seemed to feel, as a whole, relieved from expectations, not only in what they were supposed to be learning but also in what they were expected to produce,

as members of the community of practice. There was a freedom, with a sense of wonder and curiosity, to simply play, and a true sense of ownership of the process, that Daniel and the others expressed an appreciation for. Isabella spoke of the value of this when she stated that she was “excited by the idea of teachers designing learning experiences for ourselves” and being able to “talk about what we wanted to learn” (email communication, October 30, 2016). Contrasted with most professional development offerings, curiosity drove the process, rather than requirements, and teachers responded with appreciation.

This sense of curiosity and of freedom to explore translated into teachers ultimately learning about new technologies that were useful to them, no matter the level of technical expertise they joined the group with. At the very least, the time teachers spent together made them aware of the myriad possibilities of and products in educational technology; at the most, teachers walked away with new applications that were useful and productive for their students’ learning. To David, a veteran teacher with extensive technology experience, meetings were “a great opportunity to take the stuff that I’m already comfortable with, expand on some of the things that I do know how to do, and also explore some of the stuff that I don’t know how to. And it was extremely helpful for that” (personal communication, August 24, 2016). But to Violet, a veteran English teacher with over 40 years in the classroom, the group offered something quite different. Having no fear of technology but still feeling a bit “below the curve” in terms of knowing what was available and how to implement it, Violet spoke candidly and even as a voice for the senior members of the faculty when she said that the group “gave me an opportunity to look at [technology] in a less instructive kind of way. . . . [M]aybe more

mature faculty will need this kind of group to allow the introduction to it to be a little bit easier” (personal communication, August 29, 2016). Violet anticipated the needs of the older members of the staff as the roll-out neared, and the sense of overwhelm that can sometimes accompany such new initiatives, especially with technology; she saw the group’s sense of play as perhaps less daunting for them as they were introduced to the idea of technology integration. Echoing Lave’s (1991) idea that learning and mastery can “come about without didactic structuring,” to Violet, the “less instructive” way of exploring technology was key (p. 64). Yet even Fiona and William, two members of the team with less than 10 years of teaching each, saw the sense of play as beneficial to their learning as well. Fiona, a Latin teacher, loved that she could “sort of try stuff out” and “hear what other people were doing and not feel like a moron when I didn’t understand it” (personal communication, August 29, 2016). And William, an English teacher, perhaps put it most succinctly when he said, “Tech’s not scary anymore” (personal communication, August 24, 2016). These teachers expressed appreciation for this sense of freedom they felt the group; they found the sense of exploration and play, rather than mandated initiatives, learning outcomes, and expectations for immediate implementation, as far less stressful, especially in terms of their own self-confidence.

Along with noticing how this freedom affected their own sense of comfort with learning, Isabella recognized value in the way the group dynamic played out in her colleagues’ learning and development. She remarked that “the willingness of some who may have been reluctant to embrace technology in the past, when they were allowed to come to it on their own terms, surprised me” (personal communication, October 30,

2016). To Isabella, coming to technology “on their own terms” meant setting their own agendas, free from mandates, agendas, and expectations.

This sense of freedom, play, and exploration – with a purpose for learning new technologies for teaching – was one of the most salient and meaningful aspects of the time members spent together.

Motivation for Professional Growth

According to the teachers, this sense of inquiry and discovery was not something that would have happened on its own without the community of practice. To them, the meetings were instrumental in motivating them to try, to explore, and to learn new technologies together.

For some, this feeling of “being pushed” was integral to their sense of growth as a teacher. William, who described himself as one afraid of technology, was clear in saying that the group pushed him to expand his teaching tools; otherwise, as he put it, “I’m very...I’m all about not reinventing the wheel. So if Moodle works, I’m using Moodle till somebody tells me you should be trying [something else] because we’re moving in this direction. So that was part one: I needed to be pushed to try new things” (personal communication, August 24, 2016). Otis fell into the same category as William; he wanted to be part of the group in order to “better” himself. As he put it, “I was interested in, you know, this [group] could be something to better myself. And I always try to challenge myself and try to do one thing a year that sort of falls in that category” (personal communication, August 29, 2016). To Otis, it was as simple as self-improvement, and though he was “a little wary about biting off more than I could chew,”

he had the drive to “better” himself and ultimately found “that not only was this group really valuable, but I think it opened up my eyes to just the value of...groups [like this] and how impactful they can be in a teaching and learning community (personal communication, August 29, 2016). Otis found the “value” of the group to be in the “push” that being around others gave him to better himself; it was an internal push. William was different in that he found value in the push others gave him – an external push – to keep developing his methods. Internal or external, the motivation was there for both as they participated in the community. Much like a teacher in Chu’s 2010 study who remarked, “I think you can get stagnant, and I never want to be one of those stagnant teachers... I want to see what other people are doing” (p. 60), Otis likewise did not want to remain stagnant; he wanted to grow professionally.

Often, the catalyst to try and learn about new technology tools came from seeing what others were using, learning about, and trying in their classrooms. This piqued curiosity. As April, a science teacher, put it, seeing another teacher “using Google Classroom at one of those meetings made me even more keen to use it” (personal communication, August 24, 2016); not only that, she was motivated to attend professional development workshops on Google Classroom because, in her words, “I had to find out more” (personal communication, August 24, 2016). Otis echoed this idea of being motivated, but interestingly, he was motivated out of a sense of fair play and professional responsibility, rather than curiosity.

It was really interesting to see what other people would bring in. And then naturally questions would evolve from there because people would figure out how

it could impact their own classroom and then it actually got me excited to say
“OK, I need to step up my own game and think of something I can contribute.”

(personal communication, August 29, 2016)

Though he, like April and the others, looked for ways to use programs and applications in his own lessons, Otis wanted to “step up” and not simply be a learner in the group. To Otis, the “spirit of the group” made him want to contribute; he “didn’t want to be ‘that guy’ who is a leech; you want to add value. You don’t want to be just getting something. You want to find a way to give, to add value. Otherwise, you’re a taker” (personal interview, May 3, 2017). In a community of practice, as Lieberman and Miller (2008) explain, Otis’s attitude to the group goes hand-in-hand with learning. They posit that “learning is not about what happens in people’s heads, it’s about what occurs in people’s relationships” (p. 16). Otis cared about his standing with others, about “not being that guy” in the group who simply took and never contributed. To Otis, “people were sacrificing their time, so you wanted to add some value to the group; that was the biggest factor. It’s not like your job was on the line; you weren’t out to prove anything. You wanted to add some value to the group” (personal interview, May 3, 2017). In addition, Otis was illustrating Vygotsky’s principles of sociocultural learning. According to sociocultural theory, “learners participate in a wide variety of joint activities which provide the opportunity for synthesizing several influences into the learner’s novel modes of understanding and participation” (John Steiner & Mann, 1990, p. 192). Otis did participate in a wide variety of activities: he listened as some presented, he tried out new software, he worked on finding ways to contribute. All of this together played a part in

his developing participation and deeper understanding of the ways technology could enhance instruction. Otis was, in his early days with the group, on the periphery, watching and understanding how to participate and contribute. He was learning and acquiring “useful strategies and crucial knowledge” so that he could become a full participant in the community, not simply an observer (p. 192). In his relationships with others, he found teammates to work with and to motivate his desire to contribute and learn.

April, on the other hand, saw the relationships as ones of support and ones to learn from. She sought out members of the group from whom to learn, as she excitedly tried to master the use of Google Classroom for her own science classes. As she said, “Nick was using [Google Classroom] as a pilot and I knew him in the group and I would talk to him outside of the group. . . . I still have conversations with [him] or Otis around various things, particularly around [Google] Classroom” (personal communication, August 24, 2016). April was also on the fringes of the “expert” status in the community; as one that Lave (1991) would liken to an “apprentice,” she seemed content to learn slowly and implement the practice at her own pace, seeking help both inside and outside of the formal meeting space. Despite seeming unhurried in her desire to be “expert/teacher,” she expressed much satisfaction and delight with her newfound knowledge of technology.

Interesting to note here was Fiona’s feeling that not only did she feel the same benefit in being pushed to learn, but she also saw participation in the group as something that could potentially benefit her students. She stated that teachers often tell students to,

‘Push yourself; challenge yourself; take risks; fall down; it's OK to not do well.’ I think this group was an example of how we model that to students, like we take risks, try something you don't know you're going to be good at – fail – and then get back up and that's OK, you know, and I think that this group was another way of modeling that for kids. And not only should we continue to do things like this, I think we should tell kids we do things like this because they think sometimes that we don't ever fail, we don't ever risk and challenge – you know . . . I joined because I wanted to challenge. . . . I try to do something every year that challenges me, you know? It's such a great motto to live by. (personal communication, August 29, 2016)

To Fiona, her membership in the community had the added value of potentially motivating students to take risks with no guarantee of success, to model to students a “no fear” attitude with failing. In an environment like Stonebriar, where admission to elite colleges is the goal of nearly every student, fear of failure is all too real and hampers many creative impulses the students may have. A source of frustration for many teachers, this fear of failure in the students is difficult to combat. Fiona saw something in her participation in the group that was potentially beneficial in counteracting those fears in her students; she saw something that might encourage them to take creative and academic risks. In her eyes, if students saw her taking risks – and even failing sometimes – then they, too, might be more inclined to step out of their “I will try something only if I know I will succeed” mindsets.

Wenger's (2011) basis for a community of practice establishes the need for a domain – that area of interest around which members of a community come together and enjoy a shared competence. This competence is necessary for a community of practice to thrive; members of a community of practice build “expertise” in a domain – ways of being and knowledge about their shared area of interest (p. 2). Communities of practice are thus made up of both experts and novices – of teachers and apprentices. Grounded in their anthropological studies, Lave (1991) saw the phenomenon of the community of practice in ancient societies as well as modern ones. Communities of practice operate on the basis of learners watching and learning from others; moving from apprentice to expert – from legitimate peripheral participant to more knowledgeable other – is the hallmark of membership in a community of practice. Members of a community of practice may begin on the periphery of this knowledge and these ways of being, but over time, they gain competence as they learn. In the case of both Otis, who wanted to learn so that he could both use the materials and then contribute to the meetings, and April, who simply wanted to learn and implement one exciting application of technology, and with many other members in between, the sense of motivation may have served as the foundation for the learning and for knowledgeable interactions – and sense of competence – that occurred in the community of practice.

Organic, Relevant Learning

A community of practice, according to Wenger (2011), has a basic premise: communities of practice are “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (p. 1). A

recurring theme among the participants in the community of practice at Stonebriar was reflective of this premise laid out by Wenger, especially the idea of simply “learning to do it better.” In the case of Stonebriar’s teachers, this “it” referred to teaching with technology and making the best use of the students having uniform access to technology tools and platforms that could enhance instruction and learning. The meetings offered teachers space to share ideas about their “concerns or passions,” no matter what they were on any given week. Further, they shared that the group was important and meaningful because it was relevant to their everyday classroom practice. These two aspects of the group are what I collectively refer to as the “organic, relevant” nature of the group. The meetings were organic in that there was never a fixed agenda; teachers were free to bring any questions or issues to the meetings, and conversations sprang from those topics. Teachers engaged in troubleshooting, sharing exciting new discoveries, or learning about different possibilities for how programs might be used in their own classrooms. Whatever was brought up became the week’s focus. In that way, the nature of the group was “organic.” In addition, topics were relevant. No one from outside the community of practice told us what to learn; topics were relevant to our own classroom experiences, generated by us alone. Topics were organic, subjects were relevant and timely, meeting agendas were open-ended, meetings were never product-driven, and nothing was mandated or expected.

Not only was each week’s focus relevant to classroom practice, the overarching purpose of the group was one of utmost relevance. The move to a one-to-one laptop environment, where every student was expected to have a laptop in class, and every

teacher was expected to utilize technology in instruction and organization of their classes, created a sense of urgency among some faculty. Teachers felt a push to learn new technologies to implement into their daily instruction and organization. Sometimes, those technologies were organizational tools, like Evernote, that the school would require students to use. As a community, we felt that we needed to recognize the value of Evernote if the school required students to use it. At other times, the technologies were ones we could use in instruction; quiz programs like Kahoot! and Socrative were among our discussion topics, learning systems like Google Classroom were a common focus, and video streaming tools like Educanon also intrigued teachers. David explained the feeling that “every sixth grader has got a laptop, so how are we going to handle this? So now I have this whole group of people and I can say, ‘What are we doing here? What are we doing here?’ It was really helpful” (personal communication, August 20, 2016). Here, the sense of urgency in learning and implementing these programs was apparent, as was the sense of relief in having a community to learn with. Along with this relief and sense of camaraderie in figuring out implementation together, the appreciation for being able to structure relevant professional development opportunities for themselves was voiced again and again. Isabella, a 2nd year history teacher, was “excited by the idea of teachers designing learning experiences for ourselves; we talked about what we wanted to learn” (email communication, October 30, 2016). Isabella also appreciated that “I got to explore things as they related to me and my classroom. It naturally became very differentiated because we drifted to work with people who were trying the same tech or having similar issues” (email communication, October 30, 2016). The differentiation

Isabella referred to could be seen in several ways. Early on, we chose partners with whom to work on technology programs that were of interest. For example, in the first year of the group, members paired off to explore aspects of Moodle they were interested in for classroom use. I worked with Alex on the chat feature; William and Fiona worked on the choice feature; Sophia, David, and Justine worked on Moodle quiz capabilities; and so on. In other ways, meetings themselves were set up to have open agendas, with members pairing off to work on programs applicable to their own disciplines or lessons in the time allotted to meet. Members would routinely begin with comments like, “Does anyone want to help me with Evernote?” and another person saying, “I found this great quiz site; does anyone want to see it?” With that, we all split up and everyone was given the opportunity to focus on an area of interest to them. Meetings were relevant to practice in every way possible, from general to small group focus areas, which were always generated by the group members themselves.

This type of professional learning experience is a far cry from professional development’s traditional “reliance of short-term, episodic, and disconnected professional learning for teachers” (DeMonte, 2013, p. 1). Complaints about traditional professional development have focused on its disconnect from practice, its irrelevance, its infrequency, and its lack of follow-up and support. The Stonebriar community of practice, however, could not be described in any of those ways. In fact, the “connected” nature of the professional development experience was the most salient aspect, as teachers chose their own topics to learn about based on their needs and each one’s applicability in their classrooms.

Hand-in-hand with the relevance of each week's meeting to classroom practice, Daniel remarked that, "I think the organic nature of the group made it more tailored to what we were actually doing in the field" (personal communication, August 29, 2016).

He added,

I've been in groups run by the tech department, and they haven't felt nearly as . . . rewarding as [this one] did. And I've been thinking as to why that is and it struck me that those groups have very, very focused agendas. . . . [T]he tech department will put together like a two-page description of what they are supposed to accomplish – yada, yada – and 'If we're not doing this, then it's a failure' vs. 'Hey, let's get together and talk about tech.' It was always successful. (personal communication, August 29, 2016)

David further commented on the organic nature of the meetings, saying "Some people have strengths in some areas and some people have weaknesses in some areas, and . . . the open-ended format . . . set up a sort of 'What do we want to do?' and if it doesn't work, then we could sort of put it aside and focus in on something else that does" (personal communication, August 20, 2016). Both Daniel and David voiced appreciation for the open-agenda approach, as it allowed for fluidity in focus, and meetings were naturally differentiated based on strengths and preferences. Because no agendas or topics were set in stone, teachers felt empowered to set their own course of learning, and they found meaning in that empowerment.

Otis and April echoed David's thoughts when they mentioned the value of teachers bringing "their own topics" and the "focus on classroom practice" (personal

communications, August 20 and 29, 2016). Even if topics that bubbled up were not focused on technology currently in use in teachers' rooms, the teachers still valued the possibilities they could explore together. Otis honed in on the importance of this particular aspect of the meetings. He found it "interesting to see what other people would bring in. And then naturally questions would evolve from there because people would figure out how it could impact their own classroom" (personal communication, August 29, 2016). Topics were never predictable; a meeting that began with a focus on Evernote might veer in a new direction after a comment on Google calendar intrigued us. And no one seemed to mind. In fact, it was this fluidity and flexibility that was spoken of so often and seemed so very valued. During one meeting, for example, though the group was talking about online quiz programs, we all became excited by a seemingly random observation Sophia made. Daniel remembered that moment vividly, saying, "one of the things that stuck with me was Sophia . . . teaching me how to press the button on the remote for the projector to freeze the SmartBoard so that I could do something on my computer. Somebody from the tech department wouldn't have thought like, 'Oh, a teacher needs to know how to freeze the SmartBoard so they can work on their computer so that their students can't see what they're doing on their laptop,' but Sophia was like, 'Hey, I figured this out!'" (personal communication, August 29, 2016). Teachers know their own needs best, and this sharing of practices that spontaneously occurred, no matter how small or seemingly insignificant, happened because meetings were comprised of teachers communicating with teachers. It was the proverbial "water cooler talk" in action – unplanned, spontaneous, and valuable.

Otis, April, David, and Daniel all saw value in these simple discoveries relevant to everyday teacher needs that organically surfaced during meetings. Penelope valued the “useful information . . . and a place where [we] could be very interactive about it and not just listen to presentations” (personal communication, August 29, 2016). Isabella, likewise, said, “We always actually got into the nitty-gritty of technology, which represented one of the most striking departures from other professional development, which was usually very high level (email communication, October 30, 2016). Relevance to classroom practice, whether in focused topics or in impromptu on-the-spot discoveries and questions, was at the heart of what the community of practice members found meaning in during their time together in the group.

Teachers value having a voice in their own professional learning; as mentioned earlier in my review of the literature, a teacher put it best when she said, “In 22 years of teaching, no one has ever asked me what I wanted to learn” (Flint et al., 2011, p. 1163). This sense of ownership is rare among professional development opportunities, and all too often, teachers are, as another teacher phrased it, “told what we should think is important” (Goodnough, 2010, p. 175). But, in the four meta-studies of what constitutes effective professional development, teacher choice or self-directed PD was not mentioned in any of them. The idea of relevance and connection to current practice was mentioned in all of them, yet teacher-directed learning, where teachers can choose their own learning experiences, was not. An interesting disconnect to be sure, as teachers designing their own learning experiences, especially through authentic inquiry, would by its very nature be professional development that is relevant and connected to practice.

The fact that they were able to learn in an organic way about topics relevant to practice was a primary way teachers at Stonebriar made meaning of the community of practice experience. Meetings focused on “in the moment” issues, and teachers expressed appreciation for the way topics were brought up in spontaneous, unstructured ways. They found value and meaning in meetings connected to their daily practice in topics that could put to use immediately, and in conversations that centered on what they wanted to learn.

Changes in Teaching Practice

Ask researchers about the goal of professional development, and it is likely their answer will fall into one of three categories: 1) change in practice, 2) a change in attitude or beliefs about teaching and practice, or 3) improvements in student learning (Birman et al, 2000, Garet et al., 2001; Guskey, 2002). According to Sparks (2002), the goal of professional development is all three. High quality professional development goes hand in hand with “high expectations for student learning [that requires] changes not only in instruction... but ‘transformative learning’ that affects [teachers’] beliefs and assumptions about teaching [and] learning (p. 20, emphasis added). The second research question I sought to answer in my case study was, “What changes, if any, do teachers report in their teaching practice as related to their participation in the community of practice?” Teachers answered in all three categories; some found changes in actual classroom practice, other saw their beliefs and attitudes shift, and others saw the knowledge they gained about technology as beneficial to their students. In the section

that follows, I discuss the changes in practice that teachers in the Stonebriar community of practice reported as a result of their time in the group.

Because the data collected here is in self-reports, and in their own perceptions of their practice, some could see it as less reliable than other forms of data. In qualitative data collection, however, these interviews are vital to the research. According to Polkinghorne (2005), data about the human experience “depend on the participants’ ability to reflectively communicate”; however, in many research circles, self-reports remain “the primary manner for gaining an understanding of [that] human experience” (pp. 138-139). Patton (2002) corroborates the importance of interviews, saying that “we cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask people questions about those things” (pp. 340-341). Asking questions, then, is a vital and necessary practice to uncover meanings; further, according to Merriam (2009), “interviewing is sometimes the only way to get data” (p. 88). However, several of Stonebriar’s teachers did provide evidence of their changes in practice (e.g., April’s Google Classroom page, David’s groupwork protocols), which supported their claims of changes in practice.

Expanded Use of Technology

Overall, the majority of teachers in the community of practice, when asked how their practice changed, reported change in their practice as either a general increase in the use of, or a stronger willingness to try, new technologies. Though it was difficult to determine the exact changes to some teachers’ practices, Otis, Violet, Fiona, and April

each acknowledged the possible implementations of technology in their teaching. To begin, Violet felt that it was

good to see those possibilities...I attempted to try stuff a little bit. I was a listener mostly, but it did offer me some things to think about and maybe to work out. I just felt that seeing things I might be able to incorporate them. (personal communication, August 29, 2016)

Violet did not mention any specific changes, and as a late-comer to the group, she did articulate the fact that had she had more time, she may have been able to work on her facility with some of the applications presented. She found the pace of the meetings “a little fast for me because I couldn’t learn the thing right away,” but she appreciated that she became “aware of the possibilities . . . some of the quiz-type things. . . . [I]t just opened up possibilities if there was a chance to use them” (personal communication, August 29, 2016). Like Violet, Otis saw change in his practice not in the use of any one program or tool, but in “being challenged to try new things and work a little harder because I hadn’t done that in a while. . . . I definitely use some apps a little bit more than I would have otherwise” (personal communication, August 29, 2016). Yet, as mentioned earlier, despite his not mentioning a specific application, in the spring of 2015, during a professional development day at school, Otis presented a workshop on Socrative, an online quiz tool the group “played with” and tried out in their classrooms.

Fiona, April, and David all referred to their expanded general use of technology; David conveyed that “I definitely picked up a few things about test review, how I had been struggling the last few years about how to deal with test review in a way that's going

to engage the kids and cover the stuff that we need to cover” while April credited her time in the group with giving her “a start – a step – to know what I couldn’t use and a better sense of what I wanted for the students and me (personal communication, August 20 and 29, 2016). Fiona was not explicit either in her response, saying

I definitely use a lot of things. . . . I don’t know that it changed my teaching practice in the way I expected it to – what if I put it that way? Like I think it changed my teaching practice in the sense of getting snippets of what other people were doing in the classroom that maybe intrigued me, or having a fuller understanding of my colleagues. (personal communication, August 29, 2016)

These teachers, when asked about general change in practice, all reported that their practice was affected, that they had an awareness of more technologies and perhaps an appreciation for or a willingness to use new applications. When they were prompted further to point to concrete changes, however, they were quick to mention applications they had found a place for in their daily instruction. Some found various programs useful for students’ organization and as course management tools. For example, Isabella found embedding Google calendar into Moodle was, for her and her students, “awesome!” (email communication, May 7, 2014) Sophia believed that her students benefitted from “more clear Moodle pages” (email communication, May 7, 2014), and Olivia found Evernote useful in overseeing her students note-taking practices, saying, “I ‘fleshed out’ how I want to use it (only as a notebook for students which I can see) after our [meetings]” (email communication, May 7, 2014).

Others found specific tools exciting to implement, as these tools invigorated lessons. Millie shared a pedagogical change in an email during the first year of the community of practice. In a postscript, she wrote that she and her students “[l]ooooooooove the glossary [in Moodle] I set up for this unit – and it’s all thanks to this group :-)” (email communication, November 15, 2012). To her, as in Marsh’s 2013 study, teachers collaborating together helped “provide great educational opportunities for all students” (p. 617), and as a teacher with over 25 years of experience, Millie was a clear example of the veteran teacher learning from the novices – a true characteristic of a community of practice (Wenger, 2011). David implemented Kahoot! as an online quiz tool, and also began using “Google slides . . . for my research project that I have the kids do in the spring . . . [it] fit really well. . . . I never would have done that before” (personal communication, August 20, 2016). To David, Google Slides were a user-friendly way for his students to show research (they created websites in groups). Students worked collaboratively, one of David’s goals, and because of Google Slides’ features, David was able to encourage and hold students accountable for good teamwork and distributed ownership. Thus, these changes in practice brought educational benefits to students – not simply in scientific concepts, but in working efficiently in groups, a 21st Century skill – and to David as well as he developed this high-leverage educational practice. Concrete changes by both David and Millie, changes that were worth making in their eyes, were in their words, due to their time in the Stonebriar community of practice. April, even two years later, reported that she still used Google Classroom, and “I still . . . love it” (personal communication, May 30, 2017). What’s more, April expanded her use of it to

“give very prompt and complete feedback to students,” implementing “an electronic answer key” (personal communication, May 30, 2017). Both she and her students reaped the benefits, as she reported that she “could easily see patterns where I needed to revisit concepts so it provided rapid formative assessment” (personal communication, May 30, 2017). In addition, she found that “it benefitted at least some students because on the teacher assessment . . . several students actually wrote that they got prompt feedback on homework [that] would then prepare them for the formal assessment” (personal communication, May 30, 2017). Further, April explained that the “Google Classroom system allowed me to rapidly follow up on missing work and also keep absent students up to date” (personal communication, May 30, 2017). Thus, all three found programs to enhance instruction, and April “reaped the benefits” as she continued to mine the application for further benefits to her students’ instruction.

The Invisible Changes – Changes in Efficacy, Classroom Demeanor, and Identity

Sometimes, changes in practice are not visible in a concrete way. Perhaps a teacher uses a new quiz program or implements a new software program, but in some instances, these changes were small compared to more significant internal shifts – what I refer to as “invisible changes.” In the cases of William, April, and Daniel, these invisible changes were, to them, profound. Researchers, too, as mentioned earlier, regard many of these internal shifts as equal in importance to direct changes in practice. April experienced increased confidence and a bolstered sense of self-efficacy, William’s action-oriented demeanor in the classroom gave way to a less rigid approach, and Daniel’s sense of identity shifted as he began to view himself as a “teacher who used

technology” (personal communication, August 29, 2016). Each teacher’s change is discussed in the following section.

April, first of all, found her shift to Google Classroom “amazing,” not just for the many ways her practice changed, but for what the change represented. To her, the “courage to switch” and having “so much confidence” were due to being in the group and knowing “there were people I could ask for help” (personal communication, August 20, 2016). In April’s science class, the changes were many:

My students now get their homework on there, they do [the homework] online, I’m grading it online, and . . . an added benefit [is] I’ve always had an issue with where the kids were keeping their stuff if we had paper and some of their stuff was on the computers. But now if I send them everything through Google Classroom, when we come to review for a test or whatever, I will say ‘Go to your Google Classroom – these homeworks, these assignments – they’re all on there, let’s go over them. . . . So that one piece was amazing and I don’t think I would have had the courage to switch almost completely to Google Classroom if I hadn’t been through the group. (personal communication, August 24, 2016)

Students reported to April that the rapid feedback they received – feedback April attributed to Google Classroom – allowed them to prepare for exams in a timelier way (email communication, May 30, 2017). Thus, to April, the change in the way she managed her classes translated into the way students completed work, the way they organized materials, and even in the way they studied – all direct impacts on their performance, and all due to her participation in the community of practice.

But arguably, the confidence April and others gained was as big a change as the implementation of any tool. Much research has been done on teachers' self-efficacy beliefs and their effects on practice. In a recent review of literature on these beliefs, Caprara et al. (2006) found that teachers with strong self-efficacy beliefs are "open to new ideas and are more willing to experiment with new methods to better meet the needs of their students" (p. 473). April's implementation of Google Classroom is evidence of this, as her self-reported boost in confidence propelled her shift to the new classroom management tool. Further, studies also show teachers with high self-efficacy exhibit enthusiasm for teaching and likely exert a positive influence on students' achievements (Allinder, 1994; Cousins & Walker, 1995; Guskey, 1998; Stein & Wang, 1988; Ashton & Webb, 1986; Podell & Soodak, 1993; Tschannen-Moran & Woolfolk Hoy, 2001). They are also open to coaching and feedback, which is linked to student achievement (Ross, 1992). A recent study by Mojavezi and Tamiz (2012) corroborated these findings, showing a significant positive relationship between self-efficacy and both student motivation and achievement. In light of these studies, the importance of self-efficacy cannot be overstated in its influence on student motivation and achievement. The community of practice's positive influence on April's sense of self-efficacy was an "invisible" change, then, that could have great potential for her students.

Daniel also reported an internal shift; he reported developing a new sense of identity as a participant in the group. A key component of a community of practice is the shift in identity of both the participant and community as learning happens (Flint et al., 2011). Daniel's attitude toward himself as a teacher changed in the community; in his

view, “I started to think of myself as a teacher who used technology, you know, which is not something I had thought of myself as three years ago” (personal communication, August 29, 2016). Though Daniel did not mention explicitly what programs he used or which applications he had tried, his whole approach to pedagogy, in his eyes, had shifted to include technology in routine practice. Further, his standing in the community also changed, in his eyes. He added, “It [the group] helped me develop an identity within the community in my own mind. . . . I enjoyed it and I seemed to be able to help people with some of the stuff I was doing” (personal communication, August 29, 2016). In his changing identity, he helped others, thus shaping the community into one more adept in incorporating technology into teaching. Further, Daniel believed that not only had his own sense of himself as a “teacher who used technology” developed, but also that others viewed him in that way as well.

Even more profound was how William described his internal shift. William’s approach to learning and teaching changed; through his developed sense of self-awareness, he recognized a shift the group prompted, from a more results-oriented focus to one more comfortable with just exploring and discovering with his students. He said:

In terms of impact for me, I don't know that it's visible in my classroom. . . . But I think for me, like there has been a personal impact. . . . I have learned through my own graduate work that I am very action-oriented and I need to be moving forward with action plans. And this group to help me become more comfortable with, no there isn't necessarily an action plan, this is just a learning process. And finding benefit in that learning and in that collaboration. . . . [N]ot every single

meeting needs to end with ‘OK, now we are using [this]’ . . . [F]or me it was becoming more comfortable with the [idea that] ‘We’re just going to explore some things’ . . . which echoes in my classroom. I think it’s OK that we don’t get to answer the five questions that I wanted to answer today – [we] had a discussion about something that is meaningful to [the students]. I mean I definitely see a connection there in terms of my comfort level, and I do attribute it to my work in this group. (personal communication, August 24, 2016)

William’s classroom demeanor, his lesson designs, and in a sense, his approach to his students were affected greatly, and not necessarily in ways that involved technology at all. Rather, it was in the actual way the community functioned and the benefit he saw in that “no agenda” approach that influenced him to modify his “results-driven” demeanor toward a more organic and student-centered classroom. Instead of being focused on outcomes and efficient agendas, as was his style and custom, William observed the power of letting learners take the reins and find their own meaning in the discussions, and he transferred that approach to his classroom. In fact, the Harkness-style of discussion, noted for the absence of teacher agenda or intervention and the focus on student-to-student discourse, became a pedagogical choice for William (personal communication, August 24, 2016). Without his participation in the community of practice, where those practices of open discourse and open agendas were the norm, William felt he would not have been comfortable with this style of teaching.

Still others, too, pointed to these intangible changes that membership in the community of practice afforded them. Otis and Penelope both attributed their time in the

group with helping them break free of their “comfort zones” (personal communication, August 29, 2016). And Fiona saw value in that for her students. To her, “it was transformative in your teaching in that sense because you’re doing something you’re asking your kids to do, whether you realize it or not” (personal communication, August 29, 2016). According to Klein and Riordan (2011), enacting teacher change can be facilitated by immersing teachers in student experience, “finding ways to engage teachers in active experimentation,” and pairing this “with initiation into discourse communities and networking” (p. 51). Fiona’s comments reflect this; the community of practice was “transformative” to her in exactly these ways. To these three teachers, membership in the community of practice motivated them to expand their teacher toolbox and to take risks – and in doing so, serve as role models for the students they ask to do the same every day.

Change in practice takes many forms. In some cases, it looks like a new tool or application used to invigorate a lesson or an assessment. In other cases, it is a change in teacher identity – as a risk-taker or as a teacher who uses technology regularly. Still for others, change is a profound shift in the way pedagogy is viewed and successful, effective lessons are structured. In whatever form change took, teachers in the Stonebriar community of practice experienced it – and they recognized it as valuable and important for both them and their students.

Aspects of the Community of Practice Significant in Changing Practice

No matter what form change took, whether it was a new way of lesson planning or a new way to view oneself, there was something about the community of practice that precipitated these changes. I sought to find out what exactly that “something” was as I

asked teachers, “What aspects if any, of the community of practice were most significant in bringing about these changes in practice?” In their answers, teachers pointed to two clear aspects of the group that prompted, allowed, or simply created ideal conditions for change: the open agenda approach of the meetings and the immediate applicability of things learned into classroom use. These aspects, coupled with the safety teachers felt in sharing their experiences and experiments in the classroom, created an environment of change. Each is discussed in the section that follows.

The Open Agenda Approach

In the 2009 status report, *Professional Learning in the Learning Profession*, published by the National Staff Development Council (NSDC), researchers put forth extensive data and findings from a multi-year study on professional learning in the United States. The purpose of the report was to provide information to policymakers and school leaders to design powerful learning experiences for educators (Darling-Hammond et al., p. 4). In the “Foreword” to the report, Governor James B. Hunt, Jr., founder of the National Board for Professional Teaching Standards and a former chair of the National Council on Teaching and America’s Future, criticized the state of professional learning in education in this country as “episodic, myopic, and often meaningless” (p. 2). He further said that “states and districts are spending millions of dollars on academic courses disconnected from the realities of classroom, but little on helping educators find solutions to the day-to-day challenges they face” (p. 2). At Stonebriar, members of the community of practice expressed appreciation for the fact that they were able to explore topics on their own, new ways of teaching or new applications that they came up with or were

intrigued with themselves. And in their sharing, they often helped each other troubleshoot new applications or programs. Nothing was mandated or prescribed, so it was their interests and issues that drove the meetings. The only “agenda” that ever existed in the community of practice was the expectation that successes and challenges would be shared. April, a veteran science teacher, noted that “our focus was on classroom practice, the practicalities in many ways” (personal communication, August 24, 2016). This lent itself to ideas that could be easily embedded in the school day almost immediately. In no way were the meetings focused on topics “disconnected from the realities of the classroom”; rather, as April commented, the focus was “practical.” According to David, the veteran science teacher, “the open-ended format” of the meetings, or “for lack of a better word – lack of structure to it – mentally freed me up to explore things” and “if it [didn’t] work out, it [didn’t] work out; we [could] explore something else instead” (personal communication, August 24, 2016). Many members of the group would try a new application or program in their classes, and they would come back to the next meeting with either a success or challenge to share. They would then encourage others to try the application or troubleshoot difficulties. They applied things immediately and collaboratively.

Relative to this, William noted that “just meeting [was] the accountability” (personal communication, August 29, 2016). To him, the catalyst to change practice was not a mandated implementation; rather, it was “just meeting” and discussing whatever the focus was for that particular week. “The group [was] the space” that made him look at his practice and evaluate his routines. As in Hadar and Brody’s 2012 study, “just being

in the group” was the catalyst for growth to William. If he would not have been exposed to new technologies brought up in discussions, he admitted he would not have “rocked the boat,” so to speak, in his classroom (personal communication, August 29, 2016). He laughingly admitted that without the group to prompt him to explore new teaching methodologies and technology applications, he would have had the attitude that, “I’ve got my Moodle page . . . [which is] the bomb. . . . We don’t use Google Classroom, but [my students do] type a bunch of stuff (laughs)” (personal communication, August 29, 2016). The organic nature of the community of practice, in bringing up relevant, in-the-moment ideas to improve practice, followed by supportive and safe discussions of the successes and challenges of those ideas in practice, was a key element in teachers changing their practice.

Contrary to the National Staff Development Council’s report on the disconnected nature of professional learning, the fluid and organic nature of the group, without agenda or specific goals, made the focus always on in-the-moment teaching, and as a result, facilitated changes in teachers’ practices. In these teachers’ comments, Wenger’s (2011) key concepts of practice and relationship are illustrated. In a community of practice, the “reproduction of knowledge through the process of joining and identifying with communities” is at the root of the phenomenon (Hoadley, 2012, p. 291). To William, the “group [was] the space” that allowed him to grow and seek out new ways to organize his classroom. And Wenger’s (2011) idea of a shared practice was evident in April’s comments; focus in the community of practice was on pedagogy and practical applications, what Wenger (2011) refers to as “a shared repertoire of resources:

experiences, stories, tools, ways of addressing recurring problems” (p. 2). Teachers at Stonebriar did develop a shared bank of resources, and in their doing so, also developed ways to troubleshoot difficulties and solve problems together.

Immediate Application in the Classroom

Concomitant with the organic nature of discussions, teachers in the Stonebriar community of practice were encouraged – never required – to try out whatever applications or platforms were discussed in their classes between meetings. In that way, a teacher could try out an application on his/her own and then bring those successes or challenges to the meeting to discuss. Other members might then follow suit and try out the technique; thus, discussions and collaborations were launched. Either way, a teacher would more often than not leave each gathering with something new to apply in the classroom. If not that week, it was almost certain that the application or technique would be relevant to their practice in the ensuing few weeks. The immediate applicability of the work made it easier for teachers to almost instantaneously implement, or at least try out, what was learned, and the promise of follow-up discussions and support meant that even if the teaching technique was a struggle, teachers could find support in the next week’s gathering. In a recent study by The New Teacher Project, *The Mirage: Confronting the Hard Truth about Our Quest for Teacher Development* (2015), researchers held that “it doesn’t matter how many thousands of development activities a district offers if it fails to consistently connect teachers with the activities that are right for them at the right time” (p. 26). To be sure, the Stonebriar community of practice was connecting teachers at the right time with practices and programs that were relevant and right for them.

And again, Wenger's (2011) concept of a shared practice was at work. This "shared repertoire" of experiences and common issues was the focus of each meeting (p. 2). Daniel emphasized the idea when he added that "we could bring our questions right to the community to explore them" (personal communication, August 29, 2016).

Teachers seemed invested because the topics and questions were theirs to discuss and explore; they brought in what was most interesting to them, and what was most relevant. Otis added, "It was really interesting to see what other people would bring in. And then naturally questions would evolve from there because people would figure out how it could impact their own classroom, and then it actually got me excited to say, 'Okay...'" (personal communication, August 29, 2016). The space to be "really collaborative...then also the space to try it out in your own room" was the appeal to Fiona as well (personal communication, August 29, 2016). In these teachers' views, the immediate applicability with peer support seemed to be instrumental in the changing of their practice.

To Daniel, the group's focus was also "germane to the things we actually needed," and "if the group had been run by somebody from the tech department," they "wouldn't have thought like, 'Oh, a teacher needs to know [this]. . . . It was very different from the kinds of things you get at a tech workshop [when] sometimes it's not helpful or tailored to what we're actually doing in the field'" (personal communication, August 29, 2016). Thus, the group steered itself to discussions that were "germane," whether the application was something teachers were expected to use or something teachers wanted to try out themselves. Either way, applicability was immediate, and practices changed.

This relevance, according to the National Staff Development Council's report referred to at the beginning of this section, is exactly what teacher professional learning needs.

Another quality of effective professional development, according to researchers, is its ongoing, sustained implementation (Darling-Hammond et al., 2009; DeSimone, 2011; Garet, 2011; Penuel, 2007). Stonebriar's teachers implicitly reinforced this idea in their comments about the support and the collegial conversations that were a direct by-product of these ongoing meetings. In the TNTTP report (2015), researchers found that "only one in five teachers said they often receive follow up support; one in ten reported frequent opportunities for practicing new skills" (p. 26). In Stonebriar's community of practice, neither of these findings were the case. In speaking about Evernote, a program that the group discussed often because the school was planning to mandate it, Penelope said, "Evernote . . . was the single biggest area where I felt a comfort level in using it with the students that first year because of the group. It made me feel like we could do this, work through this together, and if I had questions, I knew that there were resources" (personal communication, August 29, 2016). The teachers were often at a loss as to how to use the program, but the community of practice helped assuage anxiety around the use of it, according to Penelope. Her "comfort level" meant that she was likely to use the program with the knowledge that she would have ongoing support; thus, her willingness to implement the tool was increased.

Finally, along with discussions of topics that were relevant and almost immediately applicable in the classroom, Fiona offered that though sometimes her practice did not change immediately, the group's discussions gave her ideas that she put

to use later. She explained that “there are definitely those things that sit in the back of my mind. . . . I think I’ll eventually find the places because I don’t think like anything really was presented that wasn’t useful in the right context” (personal communication, August 29, 2016). Thus, though Fiona’s practice was not always changed immediately, change was prompted – or the ideas for it were planted – by her participation in the community of practice. Penelope echoed Fiona’s remarks, saying “[if something] just didn’t work out for me at that time. . . . I still kept it in the back of my head” (personal communication, August 29, 2016). In the Stonebriar community of practice, these two aspects of the group’s time together – organic meeting spaces and immediate applicability of things discussed – were instrumental in effecting change to teachers’ practice. One of the recommendations of the TNTP report (2015) was that schools make a shift toward “providing [teachers] with . . . information, conditions and a culture that facilitate growth and normalize continuous improvement” (p. 35). From the teachers’ views at Stonebriar, the community of practice provided each of these elements.

Founding, Facilitating, and Participating: The Meaning I Made in Being Part of the Community of Practice

Looking at the experience of being in the community of practice through the teachers’ eyes offers perspectives and insights from the inside; another insider’s perspective – as the founder, facilitator, and participant – is mine. I did not enter into this project as a researcher only, but also as the facilitator and as a full participant.

At Stonebriar, I knew the need was great for professional development around the transition to a one-to-one laptop school model, so I was fully invested in many ways. I

had experienced robust and beneficial professional development during Highland Prep's (my previous school) transition to a one-to-one laptop environment. At Highland, we had been given three years of preparation, from a pilot group using technology in the classroom first, to technology workshops, to support in attending workshops and conferences. At Stonebriar, we had been given none of this, and through conversations and comments heard around the lunch tables, I knew teachers were apprehensive. I knew the needs and the anxieties as a teacher first-hand. I also knew, as a teacher, the empowerment that could come with a strong professional development program. Since I was now in a middle school setting, which offered a unique new set of challenges, I felt that same need again, and I knew I would benefit greatly from professional support. So, in every sense of the word, I was an insider – a true participant.

Thus, not surprisingly, the meaning I made as a participant mirrored theirs in almost every way. I, too, felt the meeting times were a time to freely explore, and I was invigorated by the sense of discovery that was always present. Like the others, I was motivated to try out new technology tools and the idea that we were sharing our successes and challenges together. Left on my own, I would have possibly had every good intention to try out the many new ideas and tools, but as is the case with many teachers, the other demands of the professional would have taken precedent. The accountability I felt as a colleague motivated me. Because of the group, I incorporated several technology tools (e.g., Google Classroom, Socrative, and Kahoot!), I learned how to fully implement Moodle's suite of assessments, and I worked hard with colleagues to help students reap the benefits of Evernote. Like Otis, I knew my job was not "on the

line,” but I did want to be a full participant; like him, I had the “desire to contribute and learn simultaneously” (personal communication, August 29, 2016). I also loved the freedom to explore, to learn, and to be surprised during every meeting. When I had a frustration about Evernote, I knew I could bring that frustration to the group and I would be met with understanding and support.

I valued, too, the safety of the space we created. I felt a tremendous responsibility, as the facilitator of the group, to protect it. When the technology director of the school, along with his assistant coordinator, came to the meetings, I felt the dynamic of our community’s time together shift. Meetings became question and answer sessions with them, and this was a distinct departure from our free-flowing sense of exploration that dominated most meetings. David remarked to me after one such meeting that while their presence was appreciated as a way for us to get “an audience” with them and a way to get our concerns addressed, it was not what our time together was valued for (Meeting Reflections, Feb. 12, 2014). As Langer and Colton (2005) found, collaboration can be thwarted if risk-taking does not feel safe. I found that collaboration could be thwarted by the simple presence of administrators, even if their presence does nothing to make teachers feel unsafe. It was simply a matter of a shift in focus. With administrators present, dynamics shifted to fact-finding or Q & A sessions, rather than exploring together and learning from each other. I valued the time when it was just us teachers.

It was difficult, however, as the facilitator, to maintain these boundaries. When the administration wanted to make our community of practice part of the school-wide technology committee, I declined, knowing that the spirit of the community of practice

would be changed. In a community of practice, two critical components are integral that would have been compromised if the Stonebriar community were made part of the school's technology committee: first of all, in a community of practice, practitioners are members of a group who "develop a shared repertoire of resources: experiences, stories, tools, [and] ways of addressing recurring problems" (Wenger-Trayner & Wenger-Trayner, 2015, para. 9). In the school's technology committee meetings, business was conducted, information was shared, and decisions were made. But virtually no time was spent exploring in "hands-on" time with technology. Secondly, the community aspect of the community of practice might have been compromised had we become part of the administratively-driven technology committee. Relationships are the heart of any community of practice (Wenger, 2001; Wenger-Trayner & Wenger-Trayner, 2015), and again, if meetings were run by administrative mandates and agendas, the fear was that the essential element of a community of practice – the community – would be lost.

I also valued the collegial and congenial aspects of the group. The relationships I fostered, the confidence I felt grow as the months passed, the conversations we shared – all of these experiences were incredibly meaningful to me as a member of the community of practice.

Finally, the learning that occurred in the community was, and still is, beneficial to my practice. I learned to harness the power of technology by having students complete lightning-fast surveys that fostered discussion, I became comfortable with different learning management systems, and I helped improve student organization with calendars and Evernote notebooks. I energized my classroom with active learning tools like

Kahoot! and Socrative; I provided essential, meaningful feedback with Google Docs and Kaizena.

At times, the insider-outsider role I had created tension, but it was solely internal tension. By this I mean I wanted meetings to go well; I felt somehow responsible for the success of the community. When meetings ended with smiles and comments that we had learned something that day, I felt pride in the accomplishment. This feeling that everyone needed to learn something led me to want to steer the group along at times. I refrained, knowing they appreciated the freedom – and the freedom always resulted in rich, meaningful conversations.

After my role as researcher began, as I conducted focus group and one-on-one interviews, the tension was there in a different way. Were they honest in their comments about the group? I made clear in interviews that this honesty was critical; however, my role as researcher, former colleague, and friend created this slight tension of uncertainty about that. However, I quickly realized that they were being honest when some comments and criticisms were voiced.

Thus, in answering the question, “What meaning did I make of my experience as both a researcher and a participant-facilitator in the group?,” I made meaning in much of the same ways as the other participants did. There were, though, five additional ways I found meaning; I discuss each of them in detail in the following section.

The Open Agenda Approach

In his theory of adult learning known as andragogy, Malcolm Knowles posited four principles that characterize the unique nature of adult learners:

- 1) Adults need to be involved in the planning and evaluation of their own instruction.
- 2) Experience provides the basis for learning activities.
- 3) Adults are most interested in learning subjects that have immediate relevance and impact.
- 4) Adult learning is problem-centered rather than content-oriented.

(Kearsley, 2010, p. 4)

All of these principles could be seen at work in the community of practice at Stonebriar, and all help to explain the first aspect of meaning I made in the group, that the “open agenda” approach was both daunting and freeing.

As a facilitator, each time the group convened, I felt a sense of responsibility and a bit of a sense of urgency to set an agenda – even a loose one – to feel secure that we, as a group, would accomplish something or achieve an objective. Yet, I knew that I wanted to harness the power of the group; I wanted their ideas and needs to drive the meetings. Knowles’s first principle of adult learning was at work here, as I found one of the richest aspects of the group was in the way learners took charge of the direction of the meetings.

At our first meeting, in October of 2012, I described the concept of the community of practice, specifically that we were practitioners who were simply learning and exploring together. I put the question to the group as to what to study, what our focus could be. We all came up with idea of assessing with technology. At our second meeting, the only advance planning done was to remind the group that we would be exploring assessments, and to come ready to explore. During that meeting, we listed all

the assessments Moodle, our online learning platform, offered, and we paired up to explore each of them. We chose our assessment based on interest, and we all found a partner to learn with. Assessments included the chat feature, choice, feedback, forums, the glossary, lessons, quizzes, surveys, wikis, and workshops. We spent time with our partner in that meeting looking at our choices and planned next steps, giving each other homework for the week.

Structure was there, but the teachers themselves planned the direction the meeting would take. The follow-up was determined by each pair, and collectively, as a group, we knew we would be asked to share a success or a challenge. During these follow-ups, we learned why forums were more useful than chats, we eliminated the far-too-complicated lesson and workshop tools, and one member, Millie, became elated with her class's response to the glossary. In an email to me, Millie wrote, "Looooooooove the Glossary that I set up for this unit – and it's all thanks to this group! :-)" (personal communication, November 15, 2012).

In adopting the "open agenda" approach, I offered only one item on each meeting's docket: the sharing of successes and challenges. I would leave it open to the group and, at the end of those meetings, I was always surprised at the direction the meeting took, and at the learning that occurred. As meetings continued, I became more comfortable allowing teachers to plan and drive the learning process. Soon, it became a common saying among us all that we always walked away each week having learned "one new thing, and that made it all worthwhile." Their evaluation of the learning was evident. Not only that, but the "thing" learned was almost always an unexpected "thing."

We all trusted the process. The structure of sharing successes and challenges was enough – not binding, but focused. Each week, learning and satisfaction occurred without an imposed agenda. We naturally paired up according to interests one week (October 17, 2012), we compared grading programs and discussed which ones worked best for each of us (December 4, 2014), we discussed the merits of grading pdf’s as opposed to grading Google Docs (November 26, 2013), and we spontaneously watched a demonstration of EduCanon another week (April 9, 2015). The group members knew what they needed – and they needed the freedom to explore and learn from one another in an unscripted, unplanned way. Knowles’s second principle of adult learning, the idea that experience provides the basis for learning activities, along with his third principle that adults are most interested in learning subjects of immediate relevance, could not have been illustrated more clearly here. Rather than an agenda planned in advance driving the community’s gatherings, meetings were conducted around whatever the group members wished to discuss. Successes, challenges, and impromptu questions drove the meetings, and the teachers’ experiences determined those moments. They – and I – were driven by issues we were encountering in our practice or by our interests in implementing certain technology applications. If we were working through glitches with Evernote or trying out Kahoot! in our classrooms, those interests were at the forefront of our meetings. If we were excited to share a new feature of Google Forms or we had just learned about Kaizena, we were given the floor at meetings to share. Knowles’s third principle, that adults are most interested in what has immediate relevance or impact, was often the case as well. If a new application or program was the focus of the meeting, this “content”

often enriched and interested us all, as it would likely be tried or implemented immediately. EduCanon, Kaizena, Socrative, Google Classroom – these were only a few of the platforms and programs that members of the community of practice found and wanted to share in meetings, and these sessions were charged with excitement to try out each and discover its benefits in the classroom.

Along with Knowles's principles of adult learning, Wenger's (2011) idea that a community of practice is simply a group of people who come together to talk about how to "do things better" could not have been represented more authentically than in each of the community of practice meetings. As facilitator, letting go of the reins was a difficult thing to do. But seeing the magic of their learning and enthusiasm unfold each week made this release of control more comfortable.

A focus in a *New York Times* article from June 1994, was the reactions of some 350 employees at Rockport, a subsidiary of Reebok International, who were called together for a "powwow to discuss Rockport's mission" (Deutsch, 1994, para. 1). Their charge was to suggest ideas and topics and then choose subgroups to participate in discussions with. The meeting was enormously successful. Harrison Owen, a management consultant credited with developing the concept of open space meetings for his clients, explained, "The only times when people held adult conversations seemed to be the coffee breaks . . . so I created a meeting format that was like one long coffee break" (Deutsch, 1994, para. 9). The connection between Owen's comment and Seely Brown and Gray's study of the Xerox repairmen (1995) is clear; perhaps it is an intuitive phenomenon that people who are given freedom and space to discuss their expertise and

passions will do so. The premises that drove Rockport's meetings were twofold: "the best people to discuss a subject are the ones who want to, not the ones who are forced to; [and] employees who have the chance to discuss things are the ones most likely to improve them" (Deutsch, 1994, para. 11). Structuring meetings in this way, without a doubt, according to Owen, took courage, but in ultimately releasing the reins to the employees, productivity and a sense of empowerment were fostered. I can wholeheartedly concur with Owen's findings. At Stonebriar, our community wanted to discuss the technology; they were never forced. And, in our discussions, we often found better ways to utilize technology than any of us could have discovered alone.

Appreciating the freedom to choose the focus spontaneously at each meeting and embracing the freedom to bring up questions without fear of steering someone's plan off course were two aspects of my experience with the community of practice that I found most surprising and exhilarating. Rather than an agenda-driven meeting, these open agendas worked better. Perhaps as a teacher, because we are taught to always have lesson plans and be prepared, I felt a "lesson plan" was always necessary for meetings. To "wing it" would be looked down upon as synonymous with being unprepared. Yet, this was different. This was allowing adults to drive their own learning – and it worked. My trusting us to do so worked.

Simply the Time Together

According to many research studies, one fundamental goal of professional development programs is changing teacher practice, with the ultimate result being increased student achievement (Borg, 2012; Flint et al., 2011; Goodnough, 2010; Marsh,

2013; Postholm, 2012). At Stonebriar, however, several teachers reported that one of the most satisfying aspects of the community's time together – both professionally and personally – was the collegiality and professional discourse that occurred, even if these did not result in an immediate change in practice. Perhaps a new application was not immediately put into practice or a new program was not launched right away, but teachers still felt that the time together was professionally enriching. This, to me, was intriguing. I wondered if teachers would find meetings to be a waste of time if there were no clear outcome. Like William mentioned in the focus group interviews, I, too, have a tendency to be very results-driven. But also like William, I became more comfortable with discussion evolving naturally with no concrete result. Learning was still happening, as was the satisfaction in the learning.

As Fiona said in our focus group interview, she was often engaged and interested in whatever was being discussed, though she “hadn't found the right place yet” for some of the technology applications or programs. April echoed these sentiments in her focus group. Yet, both Fiona and April were among the first to say how much they missed the professional time together. Though I, as the facilitator, might have been nervous about people wanting to meet without a set agenda or focused learning goal, I was always pleasantly surprised at the eagerness with which members approached those A-Day meetings. This eagerness was not contingent upon a new innovation in practice; it was seemingly a result of collegial discussions and professional discourse in a safe, supportive atmosphere. Research about job satisfaction could be considered here, in that those who are satisfied in their jobs tend to stay at their jobs. According to a 2012 study

by Johnson, Kraft, & Papay, a school's culture and relationships among colleagues "predominate in predicting teachers' job satisfaction and career plans" (p. 2). Thus, those schools that promote a strong collegial environment are far more likely to house teachers who are satisfied and who stay in their buildings. Forty to fifty percent of teachers leave the profession within the first five years; increasing job satisfaction and professional growth through robust, effective, collaborative professional development could then very well be a method of not only keeping teachers in the workforce, but also a way to help them improve while there (Kardos & Johnson, 2007). "Robust" and "effective" are key. But it makes me think that an immediate change in practice is not the only "effective" outcome. Maybe the professional discourse, the trust that is built in being allowed to discuss and design learning with others – perhaps these are also equal measures of effective PD.

Breaking down Walls

The fact that teachers share the same building, but are often in separate rooms, especially when they teach, led to Lortie's (1975) conclusion that teaching is the "egg crate profession." Interdependency is virtually non-existent in many schools; the knowledge, talents, and expertise of master teachers remain isolated with them in their individual classroom[s], and the needs of novice teachers are rarely supported (Darling-Hammond, 2001; Hargreaves & Fullan, 2012). These powerful interactions, which could benefit both master and apprentice, need fostering and a space to happen. Opportunities for collaboration must be carved out around teaching schedules; if not, these time constraints prevent teachers from engaging in collegial visits to their colleagues'

classrooms, despite the best of intentions that may be there. In a 2007 study by Kardos and Johnson, many novice teachers shared that “their work [was] solitary, [but that they were] expected to be prematurely expert and independent, and that their fellow teachers [did] not share a sense of collective responsibility for their school . . . one-third to one-half of them generally planned and taught alone” (p. 2083). Yet, what was intriguing to me was that in the Stonebriar community of practice, these walls around collaboration and sharing practice broke down. Veterans and novice teachers alike shared equally each week. Meetings were not “unnecessarily forced,” which according to Hargreaves and Fullan (2012), does little to foster productive collegiality (p. 146). Rather, Stonebriar’s teachers wanted to share ideas and experiences, and they looked forward to A Day meetings. In between meetings, talk in the hallways and at lunch tables often turned to what we in the community of practice had tried that day or what questions were raised related to our focus area. Hargreaves and Fullan’s (2012) finding rang true: though “teachers still [taught] alone for much of the time . . . the power of the group – and all the group’s insight, knowledge, experience, and support – [was] always with them” (p. 143). The time together seemed to buoy them up, and rather than anxiety and fear around the one-to-one laptop initiative, there was a new enthusiasm.

I remember vividly at Highland Prep, the school with the robust and intensive professional development program where I taught prior to my work at Stonebriar, when we went one-to-one, teacher talk at the lunch tables and in office suites routinely centered around practices related to the shift. I was excited to see that the community of practice experience was having the same effect at Stonebriar, turning fear and anxiety into

enthusiasm and excitement. We had our “water cooler” atmosphere akin to the legendary Xerox repairmen discussed in Seely Brown & Gray’s 1995 study. In their work with Xerox repairmen, they, along with Orr, an anthropologist, found that the most valuable work done by technicians was time spent in informal conversations in the break rooms, around the water coolers, and in warehouses. Knowledge transfer was happening that was not “a step in any formal ‘business process’ or a box in any official ‘org chart’” (para. 6). We seemed to be enjoying that same phenomenon at Stonebriar.

As a dean of faculty now, harnessing the power of educators collaborating and learning together is priority. Releasing the reins and giving teachers the time and space to learn together is key. Finding ways to balance trust and accountability is always an issue. But, in a culture of collegiality and congeniality – two key aspects of a collaborative learning culture – chances are greater that this type of meaningful discourse and professional learning will occur.

Impact on Students

As we all began practicing with the new applications and programs, students began to notice, too. A vivid memory that stands out in my mind is the day I introduced Socrative to my class as a formative assessment activity. One of my 8th graders, Nick, said, “Hey, Mr. Travis used this the other day!” and another said, “Yeah, so did Ms. Alexandre! Do you all talk or something?” The idea that teachers talked about what went on in our classrooms was a totally new concept to these young students. When I replied that yes, we met together routinely to talk about new technology and new ways to teach them, they were astounded. I heard, “Wow! Cool!” as they responded. Whether or not

this had immediate effects on their own attitudes about learning and collaboration – and hence, broke down walls they themselves had against the two – is beyond the scope of this research, but it would be a valuable area to consider for further study. It is a fact, however, that they were at the very least interested, and they seemed to be intrigued, at the thought of their teachers as collaborators and learners.

Dissolving Fears around Learning Together

The final way I made meaning of my experience in the community of practice was as a teacher-learner. Professionally, I am a perfectionist. I hesitate to say “I don’t know” about anything related to pedagogy; I want to be a master teacher, and admitting that I might struggle with anything related to teaching is difficult. Though on an intellectual level I know we never stop learning, the feeling of inadequacy is still a threat when professional learning is done in a group. However, in the Stonebriar community of practice, those fears slowly melted away as we struggled through applications and programs together.

In a traditional professional development workshop, though questions are often encouraged, there is always a nagging feeling in me that somehow I am holding an agenda up or halting progress toward a learning goal if I struggle with something. Yet, the format of the community of practice meetings did much to counter that. With each meeting’s focus on “successes and challenges,” the floor was open to sharing either, and neither was more preferred as a focus. Without fail, challenges were met with suggestions and solutions, and always with an “I struggle with that, too!” comment. As Fiona, Penelope, and April so often pointed out in the focus group interviews, no one

made anyone feel like a “moron,” “fool,” or, in April’s words, “basically stupid.” It was a safe place to learn.

Summary of Findings

In this chapter, I have described the meaning teachers involved in a three-year long community of practice made of their experience, the changes they attributed to their participation in the group, the causes (according to them) of those reported changes, and finally, the meaning I myself made as the founder, the facilitator, and a participant in the community of practice. Teachers’ responses in two focus group interviews about the meaning they made from the experience centered on the ideas of freedom, motivation, safe space, collegiality, and congeniality. The idea that technology was explored freely, with no expected outcomes or mandates requiring implementation appealed to all the members of the community of practice. The pressure to use certain applications was absent, and teachers were free to learn at their own pace. Being with others motivated teachers to learn, sometimes from a sense of responsibility to contribute equally to the shared knowledge, and at other times, from motivation borne out of enthusiasm, interest, and excitement about the tools teachers demonstrated or discussed. All of this was done in a safe space, a fact that was mentioned and appreciated by nearly all community members. The time in the meetings was safe from judgment; members reported that they never felt “less than” for not grasping the technology quickly, and they appreciated the space to ask questions freely. In addition, teachers felt safe from administrative repercussions should they voice concerns or complaints about the technology or any topics that arose. Finally, the teachers all valued the collegiality and congeniality that

were fostered in the group, sometimes even more so than the technology advances in their instruction.

The principles of adult learning theory (andragogy) were clear and evident in all the members' experiences; Wenger's three elements of a community of practice worked in tandem as well to foster a true collaborative learning environment. Isolation, an oft cited problem in schools, seemed to end among these teachers; practice, including successes and challenges, was discussed openly and candidly – and most importantly, safely.

Teachers reported various changes in their practice which they attributed to their time in the community of practice; several also referenced changes in the beliefs, mainly about themselves, due to their participation in the group. The most common changes were, predictably, increases in the use of technology, and several teachers reported student benefits that accompanied the shifts in practice. Others pointed to internal changes they felt came about during their time in the community of practice. Teachers felt increased courage, experienced growth in confidence, felt themselves embracing new identities, and even grew comfortable with new ways of learning. These changes came about, according to the teachers, because of the open nature of the meetings – and the freedom that came with that approach. The immediacy of application was also key to changing practice; as the school was preparing for or beginning a move to a one-to-one learning environment during our three-year experience, the teachers were able to implement what was discussed or demonstrated almost immediately every week. Knowing the support and collegial atmosphere were also present did much, too, to

encourage shifts and changes in pedagogy and practice. Self-efficacy seemed to also grow among some teachers, as they experienced a new willingness to learn and take risks with new tools in the classroom.

Finally, I have discussed my own experiences in the community of practice, and the meaning I made as a participant and facilitator. I experienced the same joys in learning that others experienced, and as a facilitator, my eyes were opened to the advantages of letting meetings “run themselves.” Letting topics of interest bubble up organically each week was daunting (What if no one had a topic to discuss? What if we were all silent? What if people thought our meetings were a waste of time?); however, my fears proved to be unfounded each week, conversation flowed, teachers shared successes and challenges enthusiastically, and learning happened.

In the following section, I draw the connections between literature on effective professional development and the Stonebriar teachers’ own viewpoints regarding their positive professional learning experience in the community of practice. I then discuss implications for professional development and teacher learning – especially the connections to the related practice of professional learning communities – that arose from these findings. Finally, I look ahead to some areas for further inquiry and research.

Chapter Six: Conclusion and Implications

In the spring of 2012, when I first conceived of the idea to facilitate a community of practice at The Stonebriar School, I knew two things: first, teachers were hungry for a learning experience that would prepare them for the upcoming one-to-one laptop initiative, and second, I was interested in better understanding how communities of practice worked. My purpose in implementing this group, at the onset, was simply that a need was there. Teachers were facing an enormous change in school culture that would directly impact their instruction, and in my informal conversations with teachers, I heard them express their desire for support and learning. Little did I know then that the teachers' need for more professional learning, coupled with my own studies of communities of practice, would provide me with an opportunity for an enriching research experience.

Over the course of the three years of the Stonebriar community of practice, teachers remarked often that it was “the best meeting experience ever” (personal communication, January 22, 2014), or “by far, the greatest committee – but it’s not a committee! – I’ve ever been on” (personal communication, May 12, 2013). Embarking on this study, I wanted to understand the meaning the teachers made of the experience and what it might mean for professional development for teachers.

Through this case study of a community of practice, I sought to find the answers to the following research questions:

- What meaning do teachers make of participating in a community of practice?
- What changes, if any, do teachers report in their teaching practice as related to

their participation in the community of practice?

- According to the teachers, what aspects, if any, of the community of practice were most significant in prompting changes to their teaching practice?
- What meaning did I make of my experience in the group as both a researcher and as a participant-facilitator of the group?

I further wanted to explore the comparison between what research said about the effective qualities of communities of practice and what the Stonebriar teachers said about what mattered. Prior to this study, my review of the literature revealed a pronounced lack of teacher voices in the studies of educational communities of practice. If professional development is so “deeply flawed” (Hunt, 2009, p. 2), then it seemed to me it would be advantageous to ask teachers why this might be so. I believed it would be helpful to hear from them what worked, what mattered, and what made them, in their own views, better teachers.

In this section, I discuss several key findings from my study as they relate to the literature on communities of practice in education. After sketching out the way these findings align with or contradict the research literature, I consider the implications for policy and practice that each one suggests. Finally, I offer recommendations for teachers, school administrators, and policy makers.

Collaboration Matters

Chief among the similarities between the Stonebriar teachers’ responses and those of the teachers in research studies was the value teachers placed on both collaboration and the motivation for professional growth that the communities of practice provided. In

both the Stonebriar community and in literature, teachers gave voice to the benefits of collaboration that resulted from the experience in the community of practice (Borg, 2012; Chu, 2010; DeMuelenaere, 2015; Flint et al., 2011; Goodnough, 2010; Graven, 2004; Green et al., 2013; Lambson, 2010; Marsh, 2013; Park, 2007; Salisbury & Jephcote, 2010; Woodgate-Jones, 2012). Though collaboration meant different things to different teachers (e.g., moral support, sharing of resources, teaching and learning together), teachers saw it strengthened by participation in communities of practice. Thus, a key piece of why this particular community of practice worked was not only collaboration, but the kinds of collaboration it fostered. At Stonebriar, collaboration meant a fostering of congenial relationships in the way participants supported one another or simply felt a sense of belonging. Collaboration also meant that collegial relationships strengthened. Teachers valued talking about successes and challenges of the one-to-one laptop rollout, learning new tools and pedagogies, and sharing their learning with others. Following is a discussion of the specific ways teachers valued and experienced collaboration at Stonebriar.

Breaking down walls. At Stonebriar, participants spoke of the “vacuum” that teachers are in so often and the way that participation in the community of practice broke down the walls that separated them from each other. These reflections speak directly to what Darling-Hammond et al.’s 2009 report, *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad*, called for in their analysis on teacher professional development. In the study, professional developers were called to provide opportunities to “end the outmoded

factory model of school organization and the egg-crate isolation of teachers” (p. 2). At Stonebriar, not only did this kind of opportunity occur in the group’s meeting times, but because teachers were part of the community of practice, they also saw it easier to collaborate and learn together outside of the meeting space. Teachers mentioned the value of bumping into each other in the hallway and having conversations around new practices; in some cases, it allowed them to troubleshoot and begin implementation more quickly. Talking to others who were doing the same thing was important, as was the collaborative spirit fostered in the group that carried over throughout the day. In the morning A-Day meetings or during free periods or even in the corridors, collaboration was enhanced; walls of isolation came down.

Richardson (2009) points to the idea that

[t]he American character strongly affects the way in which many Americans – teachers and other professionals included – approach their work. In schools, it is abetted by the egg-crate environment and the practice of ‘closing the classroom door.’ Many classroom teachers would subscribe to the following view: ‘This is my space, and I am responsible for it. It is mine. It reflects me. I am the teacher here. This classroom is unique and is therefore unlike any other classroom because of my uniqueness and my particular group of students. (p. 2)

But Richardson further points out that this individualistic attitude, this attitude that causes teachers to be “recalcitrant” when it comes to change, is often more apt to change and develop in an environment of constructivism and inquiry. In other words, if teachers collaborate in a spirit of inquiry, and in a manner that fosters both learning and creating

knowledge together, they are more likely to open themselves up to new ways of teaching and approaching their practice.

In the Stonebriar community of practice, as in communities of practice in general, these two environments of inquiry and constructivism were prominent. A major premise of communities of practice is that practice and competence are at the center; Wenger (1998b) defines communities of practice as “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (p. 1). These groups of people construct knowledge together; they learn together.

Individualistic attitudes develop into ones of collaboration and collegiality. Research has shown the importance of collaborative and collegial learning environments to promote school-wide change. Communities of practice help foster these environments and at Stonebriar, the community was instrumental to many teachers in helping them embrace the school-wide changes. It is this kind of community ethos nurtured in the Stonebriar community of practice that Wheatley and Frieze (2006) discussed – the communities of “kindred spirits” that develop commitment in organizations.

Congeniality and collegiality. Small but significant differences did exist between the current literature about communities of practice and that that existed at Stonebriar. Teachers in my study spoke of a more personal bond that arose through their collaboration, and they alluded to a stronger sense of belonging in the wider school community. Their focus was not on work support alone; rather, teachers like Daniel and Fiona felt a true bond unrelated to the work being done. I identify this as one of the major components of a strong collaborative environment: congeniality.

Two threads of relationship exist in strong collaborative learning environments: collegial relationships and congenial ones. Collegial relationships, according to Barth (2006) are ones that share knowledge and practice. Quoting Casey Stengel, the legendary baseball manager, Barth says, “‘Getting good players is easy. Getting 'em to play together is the hard part.’ Schools are full of good players. Collegiality is about getting them to play together, about growing a professional learning community” (p. 10). Collegiality is talking about work, observing one another teach, sharing practice – it is filled with discourse about teaching and learning. A precursor to collegial relationships, the congenial relationship is positive and friendly. These congenial relationships are, according to Barth, the “ones that help us shut off that alarm each day and arise”; they motivate us to go to work enthusiastically (p. 9). And, these congenial relationships were the type cited by many Stonebriar teachers as being highly valued, and a direct result of participation in the community of practice.

Additionally, at Stonebriar, teachers were more focused on learning with each other, not learning from each other. By this I mean that teachers seemed to value the side-by-side learning together, the struggles shared along with the successes, and the chance to help each other one week and then ask for help the next. They did not value didactic presentations or others “airing their knowledge” (personal communication, August 24, 2016); they wanted to go through the learning together. Perhaps the nature of the group lent itself to this, as it was a group focused on teaching with technology, something we, as a school, had never done. Thus, in a sense, we were all “newcomers” to the practice. While there were those in the group who had more experience with

technology and demonstrated a tool or application in a meeting, my own experience as a participant (and confirmed by my research) was that there was never a sense of anyone feeling superior or “more expert” in the room. We were learning together. If the tone of a meeting turned slightly toward a “show and tell” rather than a “learning together” one, teachers admitted that they felt disappointment in the lost freedom they felt. The spirit of the group was compromised, as it was a community to learn together; old presentation-style meetings were not of use to some of them. Though the presenter was well-meaning and perhaps just a bit over-zealous, members expressed their preference for supportive learning with colleagues, not presentations by them.

Congenial relationships and collegial ones are deeply connected. Studies show that for a strong collegial culture to exist, trust, support, and encouragement are critical (Shah, 2012; Tschannen-Moran, 2000). These aspects of a culture are what Barth (2006) refers to as congenial characteristics. Thus, since trust, support, and encouragement are integral to a collegial environment, congeniality and collegiality must be viewed as equally important in fostering a learning environment among teachers.

Motivation for growth. In both the literature on communities of practice and in this study, teachers credited communities of practice for motivating them to grow professionally. Teachers in previous research studies (Chu, 2010; DeMuelenaere, 2015) as well as those in mine remarked that they had grown “stagnant” in their teaching; the collaboration fostered in the community of practice served to “wake them up” professionally and remind them that there was much to learn. In addition, they remarked on the perils of forgetting about developing and growing when not part of a group (Hadar

et al., 2012, p. 152). Teachers also admitted that it was all too easy to “sit back and teach in ways I have been teaching for years and years” (Goodnough, 2010, p. 176). Whether teachers at Stonebriar simply need the reminder to think about practice or the push to actually implement new strategies, the motivation afforded by the community of practice was valuable.

The demands of a typical teacher’s day are many; they often teach several classes per day, their “free” periods are spent grading and lesson-planning or attending meetings, and they often have proctoring duties to attend to. Despite the best of a teacher’s intentions, those demands can supersede any desire to take on new challenges or seek out innovations in practice. The community of practice can be a vehicle by which teachers are encouraged to learn and develop, one that is not mandated, but one where a commitment to the group serves as motivation to make professional learning and development a priority.

Implications for Policy and Practice

Teachers, administrators, and policy makers may all want to explore the value of collaborative communities; below are several implications for both policy and practice that these findings suggest.

For teachers. To put it simply, teachers must value – or learn to value – the potential of learning together. The benefits of sociocultural learning drive much of what we do in the classroom; as such, we must turn that lens on ourselves and see the benefit in collaborating with other teachers in order to improve our practice. The new normal in schools can be more than fruitless complaining in a teachers’ lounge; it can be a truly

empowering experience instead, where teachers come together to learn and strengthen our craft. Further, as teachers, we ask our students to be the proverbial “lifelong learners”; how can we not follow suit? Teachers must be encouraged to break out of the “egg crates” and join or lead a community of practice when new initiatives are underway. Those who seek out leadership opportunities can ask the building leaders for space and time to do this important work; then, they can generate excitement and enthusiasm by talking about the need and the possibilities that a community of practice can offer. Seeing the need at Stonebriar, I formed a group. Teachers became more and more enthusiastic as the years progressed, seeing the benefits of this community and joining in over the years. If leading a group is not of interest, joining a CoP and, as teachers did at Stonebriar, and breaking out of comfort zones can help reinvigorate practice and strengthen relationships with colleagues. Even if days are already seemingly too full, if a new initiative is being implemented in the school, or if practice is getting stale, teachers can benefit, as they seemed to at Stonebriar, from an openness to learning, to sharing, and to taking risks.

When a community of practice is formed, as hard as it may seem, teachers should adhere to the open agenda approach in each community gathering, asking only for a “successes and challenges” model to begin. This open approach was one of the key aspects of the community of practice that participants in my study appreciated. They found it refreshing to be able to generate their own topics of discussion and address whatever issues they were experiencing. Trusting that this will happen is difficult for a teacher leader; we often want assurances that things will go well, and we feel more

comfortable with schedules and agendas at times. But letting teachers lead the meetings gives them a sense of empowerment and a voice in their own learning, and this can be a powerful piece of the group's success.

For administrators. Collaboration strengthens learning environments; with this in mind, administrators can do much to foster a learning community in their schools. First of all, they can nurture a true congenial environment, for these are the environments that breed collegial ones. It may begin with cookies and coffee in the common areas, it may blossom into faculty meetings with community building activities, and it may mean recognizing teachers for the work they do in a classroom. Building good will and an environment of trust and safety, where colleagues are not afraid to share practice, opens doors to classrooms. Administrators can build the conditions for collaboration to occur and then show trust in allowing it to happen without administrative oversight. Sadly, Barth (2005) says that collegiality is the least common form of relationship in the workplace; administrators can foster congeniality first, then gently lead teachers toward collegial relationships. Educating teachers about communities of practice and then creating the space and time for these communities to form is an important first step.

Principals, deans, and instructional leaders should be the community of practice educators, should be advocates for the format, should support scheduling time for them to happen, and may even recruit and cultivate teacher leaders to begin these groups. Collaboration is important; it is critical. Further, collaboration is valued by teachers. Administrators and building leaders must create conditions to foster it.

Creating Safe Spaces

When asked about the value of the community of practice to their teaching, teachers in the Stonebriar community offered a unique perspective; they spoke almost unanimously about the safe space that was a hallmark of the group and of the organic, relevant, “in the moment” learning that occurred. Participants in my study reported that both were of tremendous value, though neither was a primary focus in prior studies; none reviewed for this dissertation mentioned a “safe space” as a benefit of communities of practice. Empathy and support were often discussed, but these were often mentioned as an antidote to feelings of apprehension over new reforms or pedagogies.

In the Stonebriar community of practice, the phrase “safe space” was most often used to refer to a community made up of teachers only, with no administrators or department leaders present. It meant a space where risks could be taken without fear of feeling inadequate; it meant an environment free to voice fears or complaints. Perhaps it was the culture of Stonebriar, a high-performing, college-preparatory school with pressure from both parents and administrators, that demanded a safe haven. Whatever the reason, Stonebriar’s teachers were clear in the comfort they felt in the community of practice, and in the appreciation they had for that safe space.

That safe space created in the community of practice was both appreciated and, at times, guarded fiercely by the Stonebriar teachers. They spoke out freely about the effect administrators, from the department chairs to the technology director, had on the tenor of the group dynamic. The participants found the absence of school leadership at our meetings significant, and when administrators did drop in, participants expressed a

feeling that the dynamic shifted. Teachers expressed their appreciation for the freedom they felt without facing administrative repercussions or judgment; part of their appreciation came from the freedom to just explore and discover together.

Implications for Policy and Practice

The first “must” for policy makers is to avoid the urge to mandate and oversee communities of practice. For substantial collaboration to occur, Stonebriar’s teachers desired an environment free from any school leaders. Interestingly, in my current position as Dean of Faculty in another college preparatory school, I have suggested to the principal that he and I not be present at department discussions focused on our new instructional initiatives. Taking a lesson from this study, I know that for candid and free discussions to happen, we should not be in the room. Teachers need a safe space to share about risks taken and challenges encountered, and though as an administrator, the feeling of wanting all to go well and of wanting to hear how things are going is strong, I know I have to give the teachers that space.

Communities of practice work under the guidelines of “low institutionalization and high connectivity” (Hoadley, 2012, p. 293). That is, with very little administrative presence or mandate, communities of practice can thrive and foster strong collegial relationships among teachers. By providing the space and the time for “kindred spirits” to gather and build shared practice and expertise (a key element of a community of practice), building leaders can do much. This does not mean, though, that leaders should mandate these groups or implement any type of learning community as a way to capture the benefits of communities of practice.

In a recent article in *Education World* entitled “Why don’t professional learning communities work?” (2013), the author outlined the pitfalls of professional learning communities. Chief among them were poor infrastructures in schools (including a lack of time for teachers to meet), lack of choice in joining one, and lack of teacher ownership regarding what was done or discussed. According to Mielke (2015), “The bastardization of true PLCs is occurring because teacher voice is often removed from the community. . . . trust us” (para. 4). In short, the micro-management of PLCs has caused them to fall short of their intended goals. The community of practice model laid out here in the Stonebriar group and in the suggestions above might alleviate some of those pitfalls. According to Provini (2013), administrators and building leaders should allow communities of practice, which may – especially in the face of new initiatives and mandates – build excitement and consensus. Yet, in the same article, the suggestion was made to also “monitor progress by assessing, analyzing, and diagnosing the effectiveness of professional learning communities to diagnose trouble spots” (para. 9). This hits at the very heart of what teachers do not want, at what they grow apprehensive about. As the call to “trust us” is heard, administrators must avoid the impulse to measure and assess – and perhaps then they will simply see the results in the building and classrooms. Echoing Wenger, Meeks (2013) says, “We are born into communities, we choose communities, and we support communities that foster our humanity and growth” (para. 3). Teachers can be, and should be, held accountable in implementing reform efforts and new educational initiatives. But, they must be trusted to find meaningful, effective ways to implement these reforms for themselves.

As Wenger suggested (1998b), merely introducing the idea and educating the faculty about communities of practice – the suggestion I followed at Stonebriar – can be a key preliminary step in their formation. A key piece at Stonebriar was that reform was already underway and implementation was planned; the level of concern was high and the desire to learn was there. The mandate to implement technology in the classroom was handed down by policymakers; it was the community of practice that allowed teachers the space to work together to successfully do so. Policymakers have much to learn here. Their responsibility is to present relevant research, to present reform efforts, and to educate teachers on the why and the when of these reforms. Then, they must allow teachers to structure the learning opportunities in order to discover and develop the pedagogical skills to effectively implement the reforms. The accountability comes in the effective implementation of the reform itself, be it a new curriculum, a new pedagogy, a new schedule, or any other initiative. The community of practice is the means by which teachers can learn with and support each other in achieving competency in these reform efforts. Adding another task to a teacher's already full plate breeds anything but a strong spirit of collegiality or congeniality. Communities of practice are not intended to be a euphemism for a committee or a task-oriented group; rather, they can be (and should be) fostered as optional opportunities for learning. They should not be mandated. As Violet pointed out, "As soon as you say everyone has to join, it loses [its positive, meaningful nature] (personal communication, August 29, 2016). It seems paradoxical to discuss how to implement a community of practice on one hand and warn about the dangers of mandating them on the other, but it is the balance that is key. Wheatley and Frieze's

finding that, by connecting with “kindred spirits . . . we can develop the new knowledge, practices, courage, and commitment that lead to broad-based change” rings true here (2006, para. 1). Teachers should be trusted to develop commitment together, as “kindred spirits.” Teachers speak emphatically about the freedom and sense of safety they feel in the absence of both mandates and administrative presence in these communities; policy makers must listen.

In sum, communities of practice should be seen as a means to implement reform efforts and build strong practice rather than as the reform effort itself. They cannot be required or seen as a new initiative to mandate in all school buildings. Rather, they should be seen as effective ways to gather teachers together to learn about new reforms and initiative – and do so together. Policy makers can focus on reform efforts that improve student learning and well-being and allow teachers and schools to implement such reforms. Building leaders then should make sure that the structures for collaboration and community are in place and that teachers are familiar with the strengths of communities of practice – and the potential for them to offer support and to improve practice. They must also make sure that teachers fully understand the reform effort itself. The seminal case of Mrs. Oublier (Cohen, 1990), a teacher charged with implementing reform efforts in mathematics, is an example of this. In the study, Mrs. Oublier used new manipulatives and tools in her classroom, structured her classroom in cooperative learning groups, but according to the researchers, did not implement the reform aimed at building more inquiry and conceptual understanding. She continued on with teacher-centered instruction and did not allow students to discover for themselves the key

mathematical ideas. The fault here was not with Mrs. Oublier, however, and administrative leaders could take heed from the study. Mrs. Oublier believed that she was implementing the reform by simply using the new manipulatives. She did not understand the underlying purpose or rationale for them. Teachers must understand the reform efforts' educational goals, and they must grasp the theories and justifications for these reforms. Simply putting a tool, a manipulative, or a laptop in teacher or students' hands is not reform. Trusting that teachers are learners, too, and sharing the knowledge of why must come first. Then, teachers can be trusted to implement new tools and pedagogies effectively and successfully.

Communities of practice enter here – in providing that safe place for teachers to then learn and grapple with implementation together. Ongoing sustained support for implementation is found in the communities; the administrators must provide the ongoing support behind the implementation. Mrs. Oublier was not a story about failed reform; she was enthusiastic and willing to learn. Mrs. Oublier's story is more one of a failed “rollout” of a reform, as so many schools (like Stonebriar) are guilty of. Teachers like Mrs. Oublier are everywhere – hungry to learn, to improve, and to see their students thrive. They simply need meaningful goals, adequate information, an understanding of the ultimate aims of reform, space and time to collaborate, and a culture in schools built on learning, trust, and growth. Administrators must structure professional learning experiences that educate teachers on the reform goals so that they are clear, and so that teachers are clear on how to implement them effectively. Then, they must allow that implementation to happen in an environment of support and collaboration. Giving

teachers freedom and a sense of ownership, and perhaps identifying teacher leaders who may wish to facilitate such communities, could be excellent ways to administer and foster a culture of learning.

These communities of practice may look like a group of teachers deciding to get together during a common free period to discuss new techniques. They may look like a department coming up with the idea to support each other in a reform effort by visiting each other's classes and sharing observations. They may take the form of a standing Friday gathering at a local watering hole to share success and challenges of the new learning management system, or a gathering where nothing is planned, but one where discussions of best practices and strategies for teaching are always the focus. All of these reflect the possibilities – and the potential – of communities but one where discussions of best practices and strategies for teaching are always the focus.

Another area for administrators to focus on is the fostering of teacher voice and leadership. Balancing the mandate with accountability is a delicate act, but administrators could maintain the “no expectations of a product” policy with an enthusiastic attitude about the work of the community of practice. Allowing teachers to share in faculty meetings about the work they are doing – as we did at Stonebriar – gives them a chance to shine as leaders and learners and fosters a spirit of learning in the building. Teachers sharing in a positive way about learning they are experiencing also can cultivate a collaborative spirit and attract others to join in the learning.

Connections to Student Achievement and Learning – Direct or Indirect

One of the significant themes in current writing about professional learning is the struggle to connect it to student learning (DeSimone, 2009; Garet et al., 2001; Loveless, 2014; Quint, 2011). Teachers at Stonebriar did not link the community of practice experience with overt, measurable student achievement gains, nor did they express a desire to. However, teachers at Stonebriar saw students benefitting from their use of new applications and platforms; in some teachers' views, organizational skills and homework habits improved. Additionally, others suggested that teachers modeling risk-taking and lifelong learning habits was valuable to students. Yet, no teacher credited the community of practice for improving student GPAs or performances on assessments. This raises an important question about the possible impact that teachers in learning communities may have on their students. Along with direct effects they may enjoy due to better teaching methods or stronger curricula, is there, perhaps, an indirect effect on students as well? On their perceptions of learning? On their openness to risk and challenge? Seeing their teachers engage in the lifelong learning practices that are encouraged in classrooms could act as a strong model for students' development. Further research should examine the ways in which this might occur.

Additionally, it raises the following question: if communities of practice are not explicitly centered on improving student learning, does this diminish their value? Perhaps not. Connections between teacher learning or participation in a vibrant community of practice and student outcomes may not be direct ones, but they are there. Research on job satisfaction, on teacher self-efficacy, and on teacher well-being all point

to their ultimate link to student achievement (Nias, 1998; Jarzabkowski, 2003; Caprara et al., 2006; Allinder, 1994; Cousins & Walker, 1995; Stein & Wang, 1988; Ashton & Webb, 1986; Podell & Soodak, 1993; Tschannen-Moran & Woolfolk Hoy, 2001). For example, according to Caprara et al., (2006), a teacher's sense of self-efficacy may influence a student's academic achievement in several ways. Teachers with high self-efficacy beliefs are more likely to implement innovations, employ adequate classroom management practices, and keep students on task. In addition, a sense of high self-efficacy affects student motivation and involvement in class (Caprara et al., 2006, p. 474). All of these classroom advantages, according to Caprara et al., translate into bolstered achievement. Further, Allinder (1994) found that teachers with high self-efficacy "increased the end-of-year goals for students [and] set goals that were overall more ambitious" (p. 252); setting goals with students, according to Hattie (2015), is a teaching practice with significant effects on student learning (effect size of .4). Teachers in Stonebriar's community were vocal about all three, explicitly and implicitly. Their job satisfaction, sense of self-efficacy, and feeling of well-being were all positively affected by their time in the group. Members of Stonebriar's community of practice voiced their appreciation for collegial conversations, the interpersonal connections, and the energy the meetings fostered.

Implications for Policy and Practice

The findings above beg the question: does the goal of "teacher change" in professional development only refer to changes in instructional practices? Perhaps the idea of teacher change also includes changes in those affective domains, which

researchers claim influence student achievement as well. Figure 3 below describes a possible relationship between communities of practice and student achievement. As seen in the figure, communities of practice influence teachers' affective reactions to work and bolster job satisfaction, self-efficacy, and their sense of well-being; in doing so, the resulting effect, as research has suggested, may well be increased student achievement.

Thus, perhaps policy makers can take heed of the fact that effective professional development might be measured in more ways than in quantitative gains in test scores. In fostering and providing space, support, teacher leaders, a real need, and a quick course in communities of practice, building leaders and policy makers could be successful in increasing the efficacy, satisfaction, and well-being of teachers.

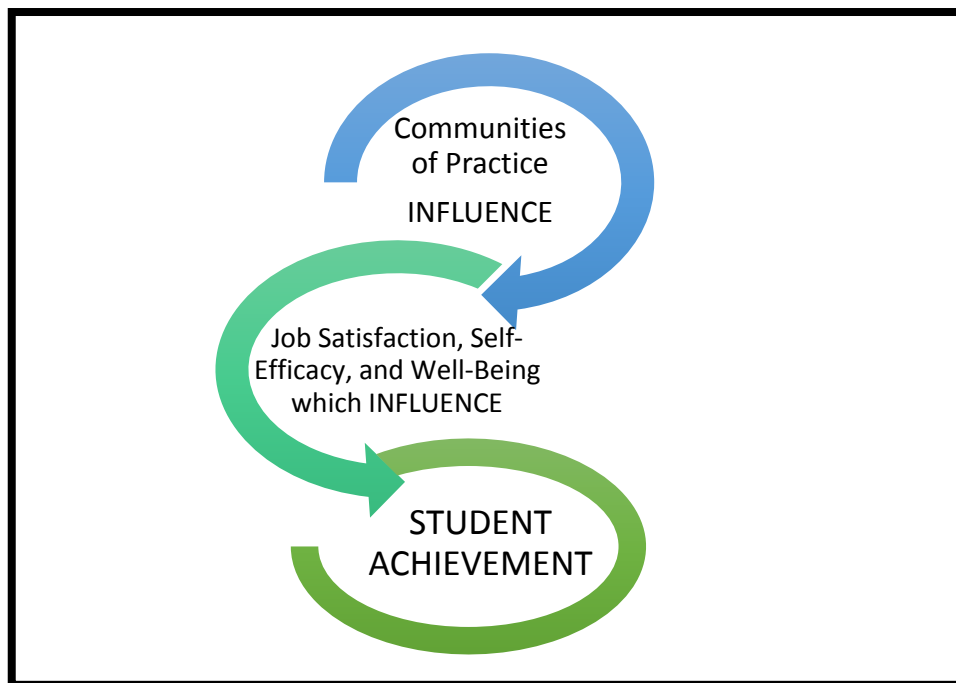


Figure 3. The Relationship between Communities of Practice and Student Achievement

Final Lessons from Stonebriar

Research has reported time and again on “what works” in professional development. There are no shortages of studies listing the characteristics of effective PD; chief among those characteristics are that it must be sustained over time, it must actively involve the teachers, and it must be collaborative. Communities of practice fit these characteristics and offer the promise as an effective means of PD in schools. According to Wenger (2011), in a community of practice, gaining competence is key; learning occurs as teachers (or participants) take part in the community, sharing practice centered around a domain about which they care deeply. At Stonebriar, we shared practice and learned with vulnerability and willingness to take risks. Teachers shared a longing for opportunities that are enriching to avoid becoming “stagnant,” knowing that without such opportunities, it is easy to get lost in the day-to-day demands of teaching and as such, not grow professionally.

If we wish for educational reform to happen, with all that we know, we must address the way teachers learn, change practice, and grow. The Stonebriar community of practice left me with a belief in the potential of teacher-led professional development and the community of practice structure as an effective one for promoting teacher learning, collaboration and collegiality in schools.

My work in this study focused on independent school teachers. While they are in an educational environment that some argue is far different from that of public school teachers, the issues and concerns of the teachers I worked with – as well as their experiences – have important implications for public school teachers as well. Their

desire for professional learning experiences free from mandates is actually notable, given how much more freedom they already have from directives and demands. This experience, then, might be that much more valuable for public school teachers.

While longitudinal studies could be useful in order for researchers to quantitatively measure the student achievement results where a community of practice is implemented, I have no doubt that communities of practice have a place in schools. Perhaps it is time to silence – or at least temper – the ubiquitous call for reforms that are only measured by test scores. Perhaps the time has come for thinking about new aspects of school improvement like teacher decision-making and problem-solving, like teacher voice and choice in their own learning, or like fostering relationships that strengthen the school environment.

My three-year journey with Stonebriar's teachers, one in which I experienced the power of teachers coming together on their own, with only the simple goal of learning together, was remarkable. From my perspective I saw first-hand aspects of Vygotsky's (1978) theory of sociocultural learning come alive, I witnessed Lave's (1991) concept of legitimate peripheral participation at work in the context of the community, I saw situated learning happen (Lave, 1991) and I was fascinated by the connections between Wenger's (1998b) original conceptions of community of practice theory and our own group at Stonebriar. I saw teachers welcome and value collaboration. I watched 20-year veteran teachers work alongside those who had been teaching only 4-5 years, learning and struggling and experimenting together; this exciting new dynamic was unlike anything I had anticipated, and a far cry from the apprehension and fear expressed at the beginning

of the one-to-one laptop rollout. The teachers I worked with were motivated to grow and develop, to be a part of a community, and to feel safe in vulnerability. I learned in this experience that sometimes the most powerful meetings are ones with open agendas designed for teachers to share successes and challenges, and that it is critical that we give space for teachers to support and help one another, especially in the face of reform initiatives.

Professional development is about balance. While there is a place for presentations, for workshops, and for introducing new initiatives, these cannot be terminal points in professional development programs. The community of practice can be a place to support the implementation of these initiatives or reforms, where teachers learn alongside each other in an environment of mutual support and encouragement. These communities, encouraged and cultivated by administrators and teacher leaders, can further strengthen the collegial and congenial relationships in a school as well. As teachers, we may love our subject areas, our students, or our facilities; however, as Barth said (2006), what helps “us shut off that alarm each day and arise” are the strong relationships we have in our buildings. Communities of practice can help foster these relationships and create a sense of belonging among teachers, while also improving teacher practice and encouraging growth. Different from PLCs in the sense that they are not mandated, a community of practice can be a powerful tool in furthering learning and change, and in promoting an environment of trust and camaraderie in our schools.

As Lieberman and Miller (2008) found, professional development in our country has been largely ineffective in that it tends to remove the professional decision-making

capabilities of teachers and is often presented as “how-to” manuals for delivering content. Hofman and Dijkstra (2010) saw current professional development efforts as efforts that “fail[ed] to distinguish between different teaching styles, schools, or classroom contexts, or between the needs of novice and experienced teachers” (p. 1031). In the Stonebriar community of practice, these criticisms were not the case. Teachers were given voice and choice in their learning, and discussions were organic and always relevant to the needs of the teachers in those moments. Whether they were novices in implementing technology or advanced users, the teachers all learned from one another, created bonds with one another, or found a source of support in one another. We strive to create that type of learning environment for our students; our teachers deserve nothing less.

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Appendix A

Invitation to Join Community of Practice (Slideshow)

AN INVITATION

PILOT GROUP FOR 1:1
TEACHING WITH
TECHNOLOGY

“places where teachers reflect on their practice and work collaboratively to make changes that improve teaching and learning” (McLaughlin and Talbert, 2006)

A COMMUNITY OF PRACTICE

groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger, 2007)


administratively mandated

product oriented

WHAT IT IS NOT

scary

time-consuming



Play,
Learn
and
Grow...
Together!

WHAT IT IS



A COMMUNITY OF PRACTICE

IT JUST MAKES SENSE.

Appendix B

Focus Group Protocol

Adapted from Duke University's "How to Conduct a Focus Group"

Participants: The focus groups will be comprised of seven to ten people each led through an open discussion by me, the moderator.

Moderator: As moderator of the group, I will strive to nurture disclosure in an open and spontaneous format. My goal is to generate a maximum number of different ideas and opinions from as many different people in the time allotted.

Time Allotted: 45 to 60 minutes

Predetermined questions

(as needed, as ideally the discussion is free-flowing and participant comments will stimulate and influence the thinking and sharing of others):

Engagement questions:

- What made you want to join the community of practice at Stonebriar?
- Describe a typical meeting.

Exploration questions:

- What aspects of the community of practice were most significant in the way you viewed it?
- How much would you say your teaching practice was influenced by your

participation in the group? Why is this? If it wasn't influenced by the group, what about the group might have inhibited change?

- Discuss the most positive aspects of the community of practice and the most negative.
- The group no longer meets regularly. Do you feel that there are relationships and conversations still influenced by your time in the CoP, or did those stop when the group disbanded?

Exit question:

- Is there anything else you would like to say about your participation in the CoP, your experience as a member, or the meaning you made out of your time in the community of practice?

Appendix C

Interview Protocol

Script

Thank you for agreeing to participate in this interview. This 60-minute session will consist of approximately 10 questions regarding your time in the community of practice and what your experience in that group was like. I would like your permission to tape record this interview and to use the information you give me in my study. My study is aimed toward understanding the teachers' perspectives regarding participation in communities of practice. Your responses are confidential, and I will only use your answers to help me develop a better understanding of teachers and their experiences in communities of practice.

Your participation in this interview and this study is completely voluntary. If at any time you would like to stop or withdraw, please let me know.

At this time, I would like to ask you to read and sign the agreement. You will receive one copy of this signed agreement, and I will keep another for my records.

Do you have any questions before we begin?

Do I have your permission to tape record this interview? Then, with your permission, let's begin.

Note: Questions will be based on each individual's responses in the focus group sessions.

Appendix D

Consent to Conduct Research on Site

Date

Attn: Institutional Review Board Montclair State University

1 Normal Avenue, College Hall, Room 248, Montclair, NJ 07043

Re: [Research Project Title & P.I. Name]

Dear Review Board,

This letter serves to give permission to [name of P.I.] to complete their research project, [project name] during [timeframe, i.e. Spring Semester 2011, Academic Year 2009 – 2010, June, July & August 2012] at our facility.

[P.I.] will have access to our [participants, i.e. students, faculty, employees, records, personnel, support staff, volunteers] to conduct his/her research project. The research project has been described to me to my satisfaction.

Sincerely,

[*Physical signature or verifiable electronic signature]

Name, Title

Organizational Name

**Please note if you are conducting research at an individual school, you will need to acquire the signature of the School Principal. If you are conducting research at multiple schools in a district, you will need the signature of the District Superintendent.*

Appendix E

Informational Email

Hello everyone,

I'm writing to ask for your help re: our Teaching with Technology pilot group experience. I'm currently writing my dissertation on teachers' perceptions of belonging to a community of practice, and I'd like to hear from you about our experiences over the 3-year span of our CoP.

Would you all be willing to sit with me for a 30-45 minute focus group discussion sometime in the near future? I will begin with these; some of you may be asked to do follow-up interviews as well.

If you are willing to do this, please reply to this email (lauralee265@gmail.com) to let me know, and I'll be in touch to set up a time once everything is ready to go. If you could leave me the best number to contact you, I'd appreciate that as well. My phone number, should you want to ask me any questions, is 908.555.5555.

I'm so grateful for all of you willing to help!

Hope to hear from you soon. And of course, I am looking forward to seeing you all again!

Laura

Appendix F

Consent Form for Adults

CONSENT FORM FOR ADULTS

Please read below with care. You can ask questions at any time, now or later. You can talk to other people before you sign this form.

**Study's Title: In Their Own Words: Teachers' Make Meaning of Participation in a
Community of Practice**

Why is this study being done?

There are many articles in educational research that discuss the why and how regarding communities of practice in education, but there are very few that describe an in-depth experience of one – and fewer still that look at the experience from the teacher's perspective. If professional development is so flawed in this country, and research says that it is, perhaps listening to the teachers' voices might tell us more of why something works when it does, rather than simply outsiders' perspectives and generalizations. Therefore, by interviewing teachers who have participated in a community of practice, and by analyzing those interviews along with any relevant artifacts, I will research the experience of participating in a community of practice from a teacher's perspective.

What will happen while you are in the study?

I will interview each participant for approximately 30-45 minutes, asking questions about their experience in the community of practice. Then, if a teacher indicates his/her practice has changed since their experience in the CoP, I will, with their permission, visit their classrooms, observe 1-2 classes, and collect any relevant artifacts they wish to provide that shows this change in practice. If a follow-up interview is required, I will conduct those at the time of my observation.

Time: This study will take about 30-45 minutes for the initial interview. If a teacher indicates his/her practice has changed, I will visit 2-3 classes on a mutually agreed-upon date, and ask for an additional 30 minutes to interview and debrief the visit.

Risks: You may feel inclined to answer questions in a certain way due to the fact that we were colleagues at one point; however, I hope that you feel comfortable in answering honestly at all times without feeling any awkwardness or pressure not to. Your anonymity is assured; no names will be used, and the school name will also be changed in the final paper.

Although we will keep your identity confidential as it relates to this research project, if we learn of any suspected child abuse we are required by NJ state law to report that to the proper authorities immediately.

Benefits: There are no benefits to you being in this study. This study will only help me in completing the requirements for my dissertation. Compensation
There is no compensation for participating in this study.

Who will know that you are in this study? You will not be linked to any presentations. We will keep who you are anonymous. Pseudonyms will be used, and the name of the school will be changed. The state will also be changed to a “mid-Atlantic state.”

Do you have to be in the study?

You do not have to be in this study. You are a volunteer! It is okay if you want to stop at any time and not be in the study. You do not have to answer any questions you do not want to answer. Nothing will happen to you.

Do you have any questions about this study?

Feel free to contact me, Laura Ripley, at lauralee265@gmail.com or via phone at 908-555-5555. My faculty sponsor can also be reached at kleine@mail.montclair.edu.

Do you have any questions about your rights as a research participant? Phone or email the IRB Chair, Dr. Katrina Buckley, at 973-655-5189 or reviewboard@mail.montclair.edu.

As part of this study, it is okay to audiotape me:

Please initial: Yes No

One copy of this consent form is for you to keep.

Statement of Consent

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement, and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I am 18 years of age or older and have received a copy of this consent form.

_____	_____	_____
Print your name here	Sign your name here	Date
_____	_____	_____
Name of Principal Investigator	Signature	Date
_____	_____	_____
Name of Faculty Sponsor	Signature	Date

