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SHIFTS IN TEACHER TALK IN A PARTICIPATORY ACTION RESEARCH PROFESSIONAL LEARNING COMMUNITY

PATRICK HALES

Abstract

Most teachers take part in professional development of some kind at some point in their careers. However, many teachers report that professional development neither supports their practice nor improves results. Thus, more work needs to be done on how professional development can meet those needs and what helps to support effective professional learning. A key factor in teacher professional learning is talk. In this study, a group of educators created a professional learning community using concepts from participatory action research to support their interactions and focus their work on achieving their goals. The purpose of this learning community was to discuss and improve writing instruction practices. This study focused on the language used by teachers and the ways in which that language changed over the course of time. The use of case study methods provided a vehicle to tell the story of this learning community through the teacher talk that took place. Findings indicated that teacher talk changed in this learning community in positive ways as a result of the collaboration and orientations of the teachers involved.

Keywords

teacher professional learning, participatory action research, discourse analysis, writing instruction, teacher talk

Introduction

The purpose of the research is to illustrate how educators used talk to construct knowledge about writing instruction in a participatory action research professional learning community (PAR PLC) which focused on writing instruction. The qualitative data at focus for this study was collected as a part of a dissertation research project; however, this report narrows the scope of analysis specifically to the ways in which language use changed over the course of learning community meetings. Findings from the study suggest that educators benefitted from the ability to discuss instruction in an action-oriented way in an environment that promoted sharing, questioning, and challenging of ideas.

This learning community was born of a need described by the teachers and administrator at this high school for a way to improve writing instruction through collaboration across content areas. What happened was the birth of a community of professionals with learning in mind. Through the use of participatory action research (Chevalier & Buckles, 2013; McIntyre, 2008), this group of educators came together to take action to improve their writing instruction through creating their own professional learning opportunities. Instead of scripted, one-size-fits-all professional development, these educators held conversations, shared practice, and negotiated ways to challenge one another toward becoming better teachers. I think one participant in the study said it best when she reminded me, "*I always know I'm going to come in here and know more when I leave. I look forward to it, and I've never said that about another professional development.*" This study is conceptualized upon research on teacher talk (Mercer, 2000), professional learning (Desimone, 2009), and participatory action research (Chevalier & Buckles, 2013).

Conceptual framework

This study builds upon concepts from research on professional development and teacher discourse. First, the collaboration undertaken by the teachers and researcher in this study was a professional learning community (PLC) that borrowed tenets from participatory action research (PAR). The intersection of PAR and PLC is merely the context of this study. The focus of analysis for this research is teacher talk. Specifically, this study attempts to understand the changes in teacher talk across multiple meetings of a PAR PLC of teachers about writing.

Professional learning communities

Teachers collaborate in a number of ways, and at times, there are attempts to provide name and theory to the ways in which they collaborate. This can be a useful practice to structure the professional learning conversations that take place between teachers, but often this naming causes the bandied about terms to become ubiquitous. The term PLC, for professional learning community, has come to mean any occurrence of school personnel gathering to discuss a topic. There have been numerous attempts to define the PLC practice for teachers. Newmann (1996) identifies defining characteristics of PLCs. First, there must be shared values and norms amongst participants. Second, goals must be focused on student learning. The third characteristic is reflective dialogue and continuing conversations. Fourth is the community of shared practice, and the fifth characteristic is collaboration amongst participants. DuFour (2004) adds that learning, rather than teaching, should be the focus for PLCs. In a large study of professional learning communities, Bolam, McMahon, Stoll, Thomas and Wallace (2005) further defines a PLC as a group of educators with the outcome of promoting professional learning and improving student learning. Watson (2014) builds upon this definition to add that PLCs should include trust, equity, and collective responsibility. Lave and Wenger (1991) put forth the concept "communities of practice" in which members of a group collaborate around a similar goal and shape their discourse to match; from this emerged their concept of "situated learning" which suggests that these individuals teach one another through unique practice and communication in order to teach and learn with one another toward their goals. For the purposes of this study, which focuses on talk and discourse, situated learning could be considered a cornerstone of teacher professional learning communities.

Teacher talk in professional learning

The examination of teacher talk in this study assumes that human nature is dialogic and that learning requires communication. Teacher professional learning is often treated as if the words of presenters will immediately transfer to practice, as if knowledge can always be directly gleaned by inactive listening. In contrast, scholarship on teacher professional learning suggests that effective professional learning involves quite a bit of talk in order to develop ideas and construct knowledge (Bolam et al., 2005; Desimone, 2011; Vescio, Ross, & Adams, 2008). This study considers teacher talk in PAR PLC from a sociocultural perspective which asserts that learners construct knowledge through talk. In other words, the language used by participants in the learning community reflects the learning community itself. Sociocultural theories of discourse suggest that the context of talk has an impact on the speakers and the listeners alike (Bahktin, 1981; Wells, 1999). Thus, teacher

learning cannot be scripted as each occurrence exists uniquely in context. Additionally, dialogic inquiry (Wells, 1999) suggests that knowledge is acquired through questioning and communication. In other words, not only does the context matter, but so too does the talk that takes place within that learning community. Mercer (2000) suggested that members of a speech community co-construct knowledge by taking part in collective inquiry. He noted three kinds of talk: exploratory, disputational, and cumulative. Disputational talk is when the talk tends to be more competitive than collaborative and the discussion focuses more toward argument and disagreement than construction of understanding. Cumulative talk, on the other hand, features consistent consensus in discussion, yet the talk lacks criticality toward ideas. Exploratory talk is where speakers share, listen, critique, and question toward constructing knowledge through discourse. In this way, a sociocultural perspective on teacher talk understands that language is significant to learning, and that exploratory talk is the ideal in PAR PLC.

Talk within teacher learning communities can reflect actions; analysis of talk can discern meanings for those actions. Razfar's study (2012) analyzed teacher talk to better discern meanings. This study involved 65 mathematics educators and teacher educators at various grade levels coming together at a conference to discuss teaching and learning. Part of the training involved identifying mathematics as language, while a paradigm shift for the teachers, it also represented an opportunity to form a language community. Participants noted being able to see the connections the author presented, but what makes this a study of note is the theoretical connection the author makes between language differences of participants when learning versus socializing in this group. The author likens the distinction between learning and acquisition (Krashen, 2003) to that of primary discourse and secondary discourse (Gee, 2014). Learning is a secondary discourse because it is explicitly taught, self-chosen, and not part of primary socialization to initial cultural or social groups. Acquisition is a primary discourse because it allows the individual to serve a certain role within his or her primary social or cultural group (Razfar, 2012). For teacher talk, this result suggests that as secondary discourse follows primary discourse, or learning follows acquisition, then it should also be that an understanding of the cultural context of primary discourse through language would be necessary to have secondary discourse. The implication for teacher talk in professional learning is that understanding the purpose and context of their discourse is to better understand the ways in which they might be constructing knowledge. For this study, it means that analysis of teacher talk should lead to better understanding of teacher purposes for interacting and the ways in which they learn and collaborate together.

Fairbanks and Lagrone (2006), in a study of seven participants in a National Writing Project teacher research group, examined teacher talk to explore the language of collaboration and engagement being used to interact and discuss writing. Through an analysis of the language used in teacher meetings, the researchers identified significant transactions and interactions going on in the group as participants assumed different roles, directed, redirected, agreed, and disagreed. The authors also noted the features of talk that emerged consistently in transcripts. In this way, the researchers were able to describe how participants shared and constructed knowledge, transformed practice, troubled instruction, and reflected on practices through an analysis of teacher talk. This is significant in that the teachers showcased how talk and reflection led to plans for action and served as a means of improving professional practice. In this study, the idea that teacher talk is indicative of action or inaction is key to research on how the language itself changes in an action-oriented learning community.

Mercer's (2000) categories of talk, particularly exploratory talk, make up the focus for what I was looking for. Teachers use talk to learn from one another and construct knowledge during professional learning, and examinations of teacher talk can indicate the course of the professional learning (Desimone, 2011; Fairbanks & Lagrone, 2006; Mercer, 2000; Razfar, 2012). For this study, sentence level utterances in response to one another is the unit of analysis used in order to understand how teachers constructed knowledge about teaching writing within this PAR PLC. Specifically, this research examines patterns of talk and ways in which that talk did or did not change across meetings. Empirical research indicates that changes in teacher talk should reveal understandings about the nature of the learning community itself. This study is interested in how teacher language use changed in this learning community and what that might mean about the teachers and the community itself. Freire and Macedo (1987, p. 29) said, "Language should never be understood as a mere tool of communication. Language is packed with ideology." Teacher talk, especially the repeated and careful look at it after the meetings have finished, carries the meanings and understandings of those speaking. In this way, this research study engages a teacher professional learning community focused on writing instruction by asking the following questions:

- How does participant language use change over the course of time in this learning community?
- What do changes in participant language use indicate about the teachers and the learning community itself?

Methods

Stake (1995, p. 12) says, "The qualitative case researcher tries to preserve the multiple realities, the different and even contradictory views of what is happening." This study employs the methods of case study research (Flyvbjerg, 2006; Stake, 1995; Thomas, 2010). Case study utilizes various research strategies (Stake, 1995) in order to examine bounded systems for tendencies, phenomena, or as exemplars of theory in action (Flyvbjerg, 2006; Thomas, 2010). By analyzing the language used by participants in this participatory action research learning community, understandings about certain aspects of their co-construction of knowledge emerged. In this study, language analysis helps to understand ways that teachers talk while part of a professional learning; that analysis informs the discussion about creating professional learning experiences that teachers find valuable to their practice.

Participatory action research

Participatory action research, or PAR, is another contextual component to the ways in which the teacher PLC in this study interacted. McTaggart (1997) said of PAR that it is a meeting place of theory and practice; namely, it is a process for conducting research which is oriented toward completing outcomes within the community that is being researched. McIntyre (2008, p. xii) adds that PAR "does provide opportunities for co-developing processes *with* people rather than *for* people. Its emphasis on people's lived experiences, individual and social change, the construction of knowledge" and action necessitates the discussion of conceptions of reality and co-construction of knowledge. The participatory nature of PAR requires discussion as the line of researcher and participant is erased. Both PAR researchers (Chevalier & Buckles, 2013; McIntyre, 2008) and research on teacher talk (Mercer, 2000) purport the importance of the co-construction of knowledge. Using PAR allows for researchers and individuals to collect authentic examples of language in use and then analyze those discourse structures to understand how communities construct knowledge. As a framework, PAR guided the actions and talk of this community of teachers in this study.

Setting and participants

This study was conducted at a public high school in the rural, southern United States. The principal and lead social studies teacher at this school expressed a need for professional learning around writing for teachers at the school. I had previously worked at this school as an English teacher and had worked with both the principal and the social studies teacher; however, I had not worked with any of the other teachers in this study prior to this learning community. The high school where these teachers all work, though not

a focus of this study, was the site of the PAR PLC meetings. This public high school has 350 students across grades nine through twelve. The demographic makeup of the school in 2016 was 61% white, 25% black, 8% Hispanic, 1% Asian, and 5% reported two or more races. The number of students participating in the free or reduced lunch program was 56%. Only 4% of students were identified as English language learners in 2016. The eight participating teachers and one school administrator in this study volunteered to attend this learning community and to take part in the research. These teachers, and accompanying pseudonyms, are a black male English language arts teacher (Gabe), a white male English language arts teacher (Luther), a black female social studies teacher (Angela), a white female administrator (Fran), a white male social studies teacher (Alfred), a white female first-year math teacher (Ali), a black female first-year science teacher (Cass), a white female English language arts teacher (Leslie), and a Latino male Spanish as a foreign language teacher (Martin). All staff members at the high school were invited to participate in the PAR PLC. Writing instruction was the site-specific, participant-selected focus of the PLC conversations; participatory action research was the framework we enculturated and nurtured over the course of the experience. Across 14 meetings of this PAR PLC, we got to know one another, as people and as professionals, and we attempted to conduct research on the nature of writing instruction within that school. Each meeting, everyone would bring evidence and data from their classes or observations to discuss related to the topic at hand. For instance, when discussion student motivation, many teachers brought in examples of effort and non-effort for the group to dissect. What made this a PAR PLC was the goal orientation at and between meetings that were negotiated together. The focus of this study is not the research we conducted, but rather the process we undertook.

Positionality

I hope to clearly relate my own position in this research in order to strengthen my findings. Certain potential ethical dilemmas are inherent in most research studies. For myself, one of the most difficult positions in this regard was that I am a former teacher at the site where this research was conducted. That has helped in my transition into working with this group of teachers, yet it also complicated the data collection and analysis. It is important to acknowledge my biases in this regard as I have attempted to view this community as both an insider and an outsider using multiple perspectives for analysis. In regard to my own purpose of being at the school at all, I was drawn to this study through the administrator at this school, who knew about my teaching personally, and the teachers' desires to improve writing instruction through a professional learning community; however, I was also driven by my desire to leave a mark on the school where I had once been an important

fixture. My personal stake in the positive outcome of the learning community had an impact on my designs in this study. I wanted the community to succeed as a participant and as a former teacher; this means my setup of the framework for data collection and the analysis focused more on the successes than the failures. We would all call the PAR PLC a success; each teacher involved reported that during the focus group discussion at the end. This fact is also marked by the fact that we still meet, albeit less than before due to my own time constraints. As a researcher, I tried to take an outsider perspective and look for issues in the talk; I found those and used them in the analysis, but I have to wonder at the interpretations others might have had who were not as involved.

The greatest dilemma I had might have been the role of both participant and researcher. It was very difficult to both observe and participate. I addressed this by being explicit about my roles and the purposes of those roles with participants. They knew I was studying language, and they helped me to understand their talk as I analyzed it. They also knew I wanted to help them to improve writing instruction, and that the purpose of the PAR PLC was to meet that need first. Also, videotaping meetings allowed me to focus on participation in the PLC. After the meetings, I was able to review the video and take field notes from a researcher's point of view. To ensure that inferential trustworthiness (Maxwell, 2012) was maintained, I employed member checking, whereby all educators in the study had the opportunity to hear about and look over my findings and inferences, and everyone was well aware of the design of the community we were using. Generally speaking, I had to be aware of and tell all the other educators about my bias to make sure that I took into account my purposes in conducting this research and carrying it out honestly and with the needs of the research site in mind. Additionally, as a researcher, it would have been simple to become the font of knowledge and the savior of writing for those teachers, but that would have been both dishonest and not nearly as effective as what transpired when I sat back and participated instead of taking control. I found it much more manageable to be a former colleague, a stranger, a teacher, a researcher, and a participant in professional learning when I told everyone in the PAR PLC that I was all of those things. In that way, we worked together to conduct the learning community, and they helped me to ground myself as I analyzed the talk.

Data collection

For this research study, I collected data to explore how educators used language in discussions during PAR PLC meetings focused on writing instruction. Data collection relied mainly on group discussions during 14 consecutive, weekly meetings in the afternoons on the campus of the high

school where all the teachers work. Each meeting was video recorded using a camcorder, and I took detailed field notes while participating as a member of the learning community. Video played a significant role in supporting the development of field notes during the transcription process. The transcripts for all meetings were shared with participants as a check for accuracy. After all meetings of the PAR PLC had been held and transcripts had been shared, I conducted a focus group with all participants to talk about our process and thoughts on the initial outcomes.

Data analysis

This case study examined how educators' language use changed over the course of learning community meetings. The initial readings for analysis focused on noticing instances where speakers used exploratory talk (Mercer, 2000) to construct knowledge, and further analysis considered those instances as language features. Those codes were useful in deepening analysis of the educators' language before creating my own codes. This method allowed me to create more robust sets of codes to understand teacher talk in this PAR PLC. Coding is an effective means of analyzing qualitative data, particularly when that coding can be refined through several sources of data (Creswell, 2009). In this study, I first developed a set of codes based on patterns I saw in the transcripts. Then, I used those codes, based on the interactions of participants, to further develop a more detailed set of language features to describe the teacher talk. I used NVivo software to help find frequently used terminology and visualize the language structures being used. I used this to help situate some of my early coding around exploratory talk to understand how frequently talk led to construction of knowledge and began to note what did and did not lead to that end.

To begin a daunting task like making meaning out of such a large sample of language use, a subdivision of the data had to occur. The unit of analysis in this study is the sentence level utterances of the educators in the learning community. Those initial themes focused on how exploratory talk was reached or what stopped it. They included "new knowledge," "sharing," "reflection," "argument," "uncertainty," "questioning," and "avoidance." I based the names for these codes off of my own understanding of what the speakers were trying to accomplish. For the purposes of this study, I first developed working definitions for these types of interaction that took place in reading the transcripts. After drawing inspiration from Mercer's categories of talk to include not only exploratory but also disputational and cumulative (Mercer, 2000) and several read-throughs of transcripts, I was able to condense those definitions down into four basic categories of interaction, or modes of intercommunication. These four modes of intercommunication are conveying knowledge, asking questions, challenging

ideas, and expressing affirmation. After sharing these with the learning community via email, they agreed with this coding scheme. The following is an example of using these codes in the transcripts.

> Patrick: *What do you think about handwriting work versus typing in your classes?* [asking questions]
> Ali: *You mean, like, papers or what?* [asking questions]
> Patrick: *Anything, but specifically in-class, on-demand stuff.* [conveying knowledge]
> Alfred: *They hand-write every note they take for me; I think it works better than anything.* [conveying knowledge]
> Fran: *So you'd say you see a difference doing it that way?* [challenging ideas]
> Alfred: *Oh yeah. Keeps them busy.* [expressing affirmation]
> Luther: *Have you ever tried to have them type in-class?* [asking questions]
> Alfred: *No. They get enough of that everywhere else.* [challenging ideas]
> Cass: *I could-uh-probably agree with that.* [expressing affirmation]

The conveyance of knowledge refers to the act of educators bringing in an experience or thought that adds new perspective, ideas, and/or experiences to the community. This mode of communication was a building block for constructing knowledge about the teaching of writing because members often shared experiences and provided a personal vision or concept for an idea. Affirmation refers to those times when educators chose to either provide support for or go along with presented perspectives. Sometimes that affirmation was more collegial and other times it was merely acquiescence to avoid conflict. Cass, in the example above, indicated more acquiescence in her manner of speaking when affirming Alfred. The questioning mode of intercommunication refers to those points in speaking where educators made an utterance with the purpose of getting more information. This was an important function in the construction of knowledge within the PAR PLC because it led to educators refining ideas and reflecting upon them. Note that in the example above, even though Fran used the interrogative form, her purpose for speaking that way was not to gain more knowledge but to counter the thinking of Alfred. Challenging ideas occurred anytime educators seemed to offer a counter to a posed idea or perspective. This concept is important in knowledge construction because challenge occurs at the places in talk where differing perspectives meet. Each of the codes could be broken down into further features, but by leaving the codes broad, the changes are easier to see. By examining the frequency of these codes, it is possible to see if any changes occurred across this case of teacher talk.

Changes in language use over time

Over the course of 14 PAR PLC meetings, there were changes in the ways in which teachers in this study talked with one another. In order to display this change, I will share the frequency of the codes as they changed across time. In the discussion, I will go into more detail to qualitatively describe and examine the talk of teachers in this community.

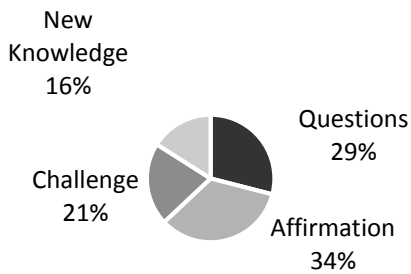

Figure 1. Frequency of four modes of intercommunication in relation to one another (total).

The chart in Figure 1 showcases the percentage out of all utterances made by each participant, my own talk included, for each mode of intercommunication. Affirmation takes up the highest total percentage of interaction at 34%. Taken into account across all meetings, this could mean that the educators were generally agreeable with each other rather than dissenting. It could also mean that educators chose to agree rather than challenge ideas. That is why the 21% challenge figure is so important; educators may have been very supportive, but clearly, they also felt comfortable in finding instances to take a counter-stance. Also of interest is the fact that the questions mode of intercommunication accounted for 29% of coded talk. This might indicate that educators either needed a good deal of clarification or that questions served an important purpose in the communication process. Examining the transcripts, by and large the majority of questions were exploratory in nature; rather than clarifying, educators used questions to move the discussion along through testing ideas and interrogating problems. That knowledge only took up 16% of the utterances across all learning community meetings also raises a few considerations. Educators clearly did not bring in new information as much as they used the other modes. As a result, it seems that the group as a whole spent more time problematizing a few selected topics than consistently bringing in new ones. This has implications for the community mindset in

that, over time, the learning community somehow collectively made a choice to hone in on a more focused set of ideas for discussion. Whether this was for the good or detriment of the learning community as a whole requires further analysis. Additionally, to better understand the meaning of these totals, a breakdown of their development across sections of time of the learning community meetings is necessary.

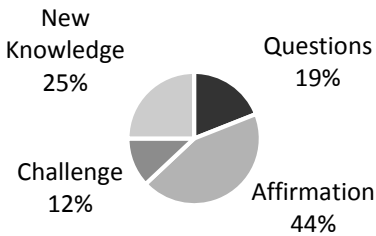

Figure 2. Frequency of four modes of intercommunication in relation to one another (first five meetings).

First five meetings: The percentages in Figure 2 represent the frequency of each mode of intercommunication out of all coded utterances from the first five meetings of the learning community. This stage of the learning community contributes a look at the early building process and formulation of trust among educators. This can be noted by the high level of affirmation and knowledge with a relatively low amount of questions and challenge. During the first few meetings, a majority of the talk involved sharing experiences or reimagining some idea followed by another participant agreeing by relating-supporting or sometime acquiescence. Educators seemed hesitant to challenge or question one another. In the very first meeting, educators even seemed hesitant to ask clarifying questions. The challenges that arose as a result of new ideas at this stage were more often in the form of a rhetorical question rather than a direct refutation. This did not generate discussion as much as it led to non-starters. During the focus group at the end of the meetings, one participant noted about this figure, "*We treated this like any other professional development at first. You just hear and listen and, uh, you're not sure what to do when it changes.*" Data support this claim. A majority of the knowledge during these meetings came from me directed toward the group. Pauses and silences were more often during this stage as educators searched for the language of comfortable interaction. These meetings were productive, as educators have noted; however, they can be viewed as a transition period as the educators were learning to negotiate the terms of the learning community. Structures for communicating were

built and social norms were developed. When held against the results from other time frames, the first five meetings imply uncertainty and serve as the starting point for the development of the language community.

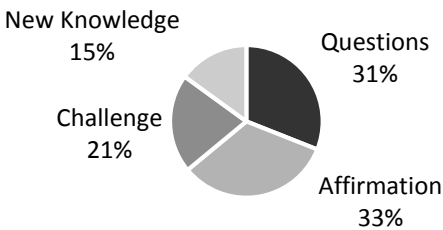

Figure 3. Frequency of four modes of intercommunication in relation to one another (middle five meetings).

Middle five meetings: Figure 3 represents the percentage of all coded utterances from the middle five meetings of the learning community about writing falling into the four modes of intercommunication. The middle five meetings mark a noticeable change in the frequency of each mode of intercommunication. Conveying knowledge dropped starkly from 25% of coded utterances to just 15%. During this stage, educators brought up new ideas less and instead focused on debating and retooling ideas considered previously. More time was spent discussing single ideas rather than moving on quickly. Also, other educators took the majority role as sharers of knowledge rather than myself, who took the lead in the first five meetings. This is a significant shift in the dynamics of the learning community. Just looking at the body language of all the modes through the learning community videos, educators looked at me less during this time and instead scanned the room; this is the exact opposite of the first five meetings. Affirmation also dropped from 44% to 33%. As opposed to the first five meetings, educators seemed less inclined to simply agree. Acquiescence was common in the first five meetings, but this middle stage showed more relating-supporting forms of affirmation. This drop in affirmation can also be accounted for with an increase in challenge. Educators began refuting ideas as a comfortable language for disagreement emerged. From the focus group when asked about this change in challenge, "*You're not sure it's okay to say, 'Hey, you're wrong,' so you don't and just, uh, you know, go along with it. Later on, we got the hang of it (group laughs).*" The group most likely laughed at this statement because of the strong opinions and interactive debates that took place during these last two time

frames of the learning community. It is during this stage that educators created a social language for challenging ideas and were able to do so without causing or taking offense.

Questions saw the greatest increase during this timeframe, and those questions improved the chances that talk led to discussion which helped educators co-construct knowledge about writing. Many clarifying questions were asked in response to both knowledge and challenge as a result of educators wanting to understand the perspective of the speaker. These clarifying questions also led to discussion questions, however. Educators followed-up with ideas and perspectives that furthered the conversation. "*I wonder*" and "*What if*" statements occurred frequently throughout the questions mode of intercommunication. Discussions were long, as a result, and there were less discussions that ended quickly because of acquiesce or uncertainty. The learning community evolved during this time into a community where members created and used social and language norms that facilitated interaction toward meeting group goals. As part of the changes that occurred in the learning community language toward better collaboration, educators took on the talk of teacher researchers using shared practice. This is evident in the time spent problematizing knowledge through questions and challenge in later meetings. Additionally, educators gained a confidence in talking about their own teaching and experiences.

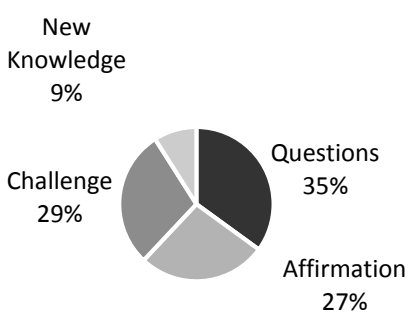

Figure 4. Frequency of four modes of intercommunication in relation to one another (last four meetings).

Last four meetings: The last four meetings of the learning community showcase the culmination of the development of a process of talk. Knowledge continued to fall in the final four meetings to 9% of coded utterances. Rather than experience, a majority of this talk tended to take the form of reimagining such that ideas could be employed in educators' practice.

This drop also continues to account for educators choosing to discuss and debate previous ideas at length rather than drawing on a continuous stream of new topics. In other words, the construction of knowledge changed from a focus on mostly new ideas to refining previously shared perspectives through talk. For example, student interviews conducted by a participant might be new information, but it stands in affirmation or challenge to the idea that sparked the generation of the interview itself. Educators spoke and worked in this manner during this stage of the group. Affirmation again dropped to 27%. Educators seemed to feel less inclined to offer agreement rather than ask questions to further the discussion or challenge an idea. Questions only increased slightly to 35%. The structure of question language remained much the same in the last four meetings as in the previous five. The content of the questions did change. Questions targeted the reimagining of ideas as part of a discussion of practice rather than more theoretical conversations. Application emerged as a goal and the language shifted toward that. Challenge rose yet again to 29%. This reflects the myriad debates between educators, particularly about application to practice. As part of more comfort with the language of disagreement, educators not only refuted ideas more but they also offered alternatives as a result. In previous time frames, refutation often came to a simple disagreement, or "*agree to disagree*" as educators put it. In these final four meetings, action and application being at the forefront, challenge needed to come back around to unity and educators no longer felt comfortable letting opportunities to understand and come to consensus go by. Construction of knowledge through talk centered on creation and organization of plans for action. Action orientation of the participatory action research learning community came to fruition toward the end of the learning community. The language in these modes of intercommunication reflects this shift; educators challenged and questioned toward results and unity more so than at any other point.

These results are indicative of change over time throughout the talk in this learning community. The PAR PLC language patterns changed. As the context itself formulated and educators negotiated roles and ways of being within it, the concept of being a part of this learning community evolved. There was not a list of what each person would and should do at each meeting nor a list of official roles; the community negotiated the nature of the group through practice and discussion. Throughout the meetings, the learning community moved from looking to one person for the answers and waiting for direction to finding answers together and creating a direction for itself. In this way, the talk of the learning community indicates a shift toward the construction of knowledge with regard to participant language practices. Earlier meetings were predominantly marked by fervent attempts by some at discussion only to find disengagement and acquiescence due to uncertainty,

preconceived notions of professional learning, and unfamiliarity with challenge and questioning. As the community grew accustomed to itself and language practices throughout the modes began to take shape, co-construction of knowledge through talk became more regular with disengagement occurring only sparsely, usually due to notions of power from education experience. The language practices of the learning community eventually promoted an expectation of rigorous discourse, mostly through the joint development of ideas. Language practices that did not contribute to goals waned with familiarity and value placed on participation. When the language seemed to indicate the construction of knowledge, so too did the PAR PLC become more collegial and oriented toward action. The action-orientation of the PAR PLC, where educators wanted to change writing instruction at the school, helped drive the language processes more toward the construction of knowledge.

Implications of the changes in teacher talk

Throughout the analysis process, some themes emerged which helped to underscore the ways in which the talk between teachers changed. These are: (1) uncertainty faded with community building, (2) support came easily while challenge did not, (3) questions, challenge, and action, rather than knowledge, furthered discussion, (4) educators had to learn how to share, and (5) educators incorporated the language of teacher-researchers. Each of these themes is discussed in the following sections.

Uncertainty faded with community building

A community has to be built. This is part of the issue with some professional development and learning communities; people who may or may not know each other are placed together just one time or irregularly and are expected to improve practice together. Results take time. In the case of this study and this learning community, there was a period of time where the participants were acclimating to one another and the meetings were less productive than they eventually came to be. A big part of this is due to uncertainty of participants about how to be within a learning community. This uncertainty was evident through certain patterns of language use. Earlier on, some participants had a lot of knowledge to share, so they did; likewise, other participants, particularly those educators with less experience, seemed less likely to share and more likely to simply agree with everything. Those indicated uncertainties. Some participants did not feel comfortable testing ideas in early meetings for several reasons, mostly because of their amount of experience or negative experiences. Also, the constant affirmation without the development

of ideas led some to seem unsure of what to say to continue discussion. As some of the more experienced teachers took charge at points, their confidence, and occasional challenging language features, seemed to dominate.

The participatory action research model of the learning community may have contributed to uncertainty fading over time. Participatory action research promotes community building (Chevalier & Buckles, 2013). Likewise, PLC research defends the need for community and equitable interaction (Desimone, 2009, Timperley, 2008). As educators reminded one another about the participatory nature and non-exclusion, they held each other accountable for inclusion, as evidenced through talk. The increase in challenge and questioning particularly indicated that as it became a part of the communicative culture of the PAR PLC to trouble ideas toward improvement. Additionally, the action-orientation and sharing of practices challenged everyone to take part. That shift toward challenging and questioning ideas more comfortably served to open up the dialogue and dwindle the uncertainty about how to take part in the community. This yet again implies weaknesses in the one-time, short-lived professional development teachers are used to. In contrast, this PAR PLC framework had regularity of meetings that allowed for the creation of a process of talk which supported goal-setting and achievement. The interactions were allowed to form more naturally. As a result, uncertainty was high in the beginning stages only to reduce with practice.

Support came easily while challenge did not

Even in the initial meeting, participants showed no signs of struggle with presenting affirmation in response to sharing of knowledge and even discussion questions. Some professional learning experiences with teachers in the U.S. have suffered from a lack of critical engagement of issues (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Timperley, 2008). The issue with this was that an overabundance of affirmation often led to a lack of development of ideas and less opportunity to use language to construct knowledge. This led to discussions ending abruptly as participants paved no way of moving forward. During the focus group Luther shared, "*You can easily become a yes man in professional development. It's a whole lot easier to just agree with what you're hearing and then go do your own thing than it is to listen, you know?*" As with the theme of uncertainty, past experiences created an expectation with the participants of the ways in which to interact within a learning community. Just agreeing with everything seemed so much easier than challenging ideas to engage. So often in early meetings there are examples of participants shying away from sharing, refutation, discussion, and the like using affirmation as the vehicle. In this way, affirmation was sometimes counterproductive to the construction of knowledge.

The struggle at first was finding ways to challenge one another in a non-offensive way; participants at times had issue with the difference in challenging ideas versus challenging people. An example from the second meeting saw Angela tell Alfred, "*You're wrong about that.*" Alfred quickly had nothing else to say other than, "*Okay. Alright.*" He held his hands up in acquiescence. That is starkly different than later meetings where subjects of most refutation statements were the ideas in question rather than the speakers. This form of challenge resulted in less acquiescence; rather, participants started using relating-supporting guided toward supporting their refutations and those of their colleagues. Affirmation of a refutation made the challenge more acceptable to the learning community. Thus, there was a steep learning curve for participants in navigating the language that would be most effective for both providing support and challenging one another in a way that was productive.

Questions, challenge, and action rather than knowledge, furthered discussion

During the focus group, Fran shared the following, "*The conventional wisdom in PD is that everything has to be new. If it isn't something new, you've seen it before, and it's like, whatever.*" In other words, these teachers were used to professional development being driven by a language emphasizing the sharing of knowledge, a language feature that did occur in this learning community. However, in the PAR PLC in this study, other modes of language and language features tended to drive discussion. Mercer's (2000) exploratory talk describes the kinds of talk that teachers in this learning community used when heading toward solving problems and refining ideas. First, questioning became a significant aspect of the language community. Whole conversations took place in the form of questions as those questions built upon one another toward constructing knowledge. When met with a problem, members of the learning community seemed to ask questions of one another to help work through it. Questions served as the glue connecting ideas. In fact, participants started self-policing engagement in meetings using questions by asking what each person thought. This, too, furthered the conversation.

Challenge also played a role in helping discussion productivity. As previously discussed, the language of challenge was the slowest developing aspect of the learning community. As a result, it was also robust and unique to the setting. Refutations became direct and participants were expected to engage in supporting ideas. In that way, ideas became more refined, and that process became an integral part of the learning community conversations. The PAR framework of the community contributed to this. Conversation evolved with the expectation that each educator shared something in relation to writing instruction. The PAR PLC became a testing ground for ideas as all the educators began to see new ideas emerge through talk.

Lastly, action took on an overarching role as a goal of the learning community. Desimone (2009) found that learning communities tended to find more motivated participants and better student outcomes when focused on making actual changes. Especially in the last half of meetings, much of the discussion steered toward ways to implement ideas and strategies directly into the classroom. This shift from theory to practice is noticeable in the language. The outcomes of the talk often came to reflection, where teachers thought about what they had been doing in their classrooms, and the creation of ideas, where plans of implementation came to life through discussion. As such, rather than PD as the participants had reported being used to where the presenter supplied new knowledge for receipt, the participants in this learning community used discussion to meet their community formed goals, and the primary tools of that discussion were questions, challenge, and action.

Participants had to learn sharing

Sharing of knowledge was not always done effectively such that others in the group could respond. At times, language indicated that participants were not comfortable talking about their own practice, especially those teachers with less years of experience. A factor in this also seemed to be the previously discussed uncertainty participants experienced upon beginning the learning community. Just like with challenge, a language for sharing had to develop. When oversharing tended to end discussions early on, this made ideas seem more concrete, lacking flexibility, and beyond challenge. From Gabe during the focus group, "*You come to something like this not knowing what to expect, so to put yourself out there with an idea is like exposing your weakness.*" Experienced teachers were quicker in shaking off the nerves about sharing, and more swiftly adapted to a model of expressing ideas. For a few meetings, this model had the previously discussed problem of too much support with too little challenge. As a language of challenge developed, so too did more confidence about sharing. Perhaps in seeing challenge take place, comfort and support within the learning community environment developed. When asked about this development in the focus group Cass responded, "*I started to see that everyone really is here to help out and come up with the best ideas for how to make writing work. You get to see no one died from being wrong about something.*" This finding echoes some of what is reported in the literature about professional learning. Particularly, professional learning should be continuous and regular and comforting yet challenging and engaging (Darling-Hammond et al., 2009; Desimone, 2009). Participant language use indicates this development of support over time in order to share knowledge toward constructing knowledge. Findings suggest that sharing in a way to receive critique was an acquired skill within the learning community.

Educators incorporated the language of teacher-researchers

The PAR PLC became a testing ground for ideas where the educators brought in what they were seeing in their classrooms and how they were thinking about writing to analyze and debate toward improving writing instruction. As participants shared more ideas and I brought in research-based examples and data collection strategies, language practices changed. Those descriptors that ended debate occurred with less frequency, and participants started to use the language of researchers. Terms like *multiple perspectives*, *research-based*, and *evidence* became commonplace when determining the effectiveness of ideas. In the latter half of learning community meetings, the participants implemented their own data collection regularly toward being able to share and critique which served to enforce this language. In talking about their own teacher conducted research with students, participants were flexible in explaining evidences for the findings they had. Just because they observed something did not mean they discussed it as if it were truth; rather, they used the opportunity to discuss differences between what they and others had seen. This was an important step in the development of the participants as teacher-researchers; however, the use of vocabulary was not the sole indicator of their development in this role. As previously noted, participants tended to motion toward and look to me for direction in early meetings. As the outsider bringing in this method of learning community, other participants viewed me as the distributor of knowledge. The participatory action research nature of the learning community could not operate under that structure. I had to begin to ask questions and challenge ideas more to generate the discussions necessary to model participatory learning. The result was more comfort in having conversations over time as well as more participation. As participants learned about ways to organize data collection in their classrooms, they also incorporated language indicative of research, used more evidence to support claims, and shared more of their own practices. Through all this, participants showed more signs of self-starting rather than relying on an external source for progress.

Limitations

There are limits to the application of this study's findings to practice and theory. First, my own participation as a former member of the faculty at the research site limited what I could observe had I been more of an outsider. Additionally, this study only represents a snapshot of these educators talking about writing in this unique high school. Such specific characteristics limit the application of findings across contexts. Also, there were mostly humanities teachers in this group; how might the findings have been different if there had been more STEM educators, for example?

Additionally, this study did not take a critical look at all the power structures at play in teacher professional learning. I did discuss the nature of experience as a divisive factor in community discourse; however, race, class, and gender were not the foci of this study and could provide more insight into the ways in which educators negotiate knowledge in professional learning. Even in terms of years of teaching experience as a hindrance to PLC participation, was that a function of teacher education programs or of the schools themselves? More work needs to be done to determine if either or both are a factor.

Implications

This study highlights how teacher talk changed in a teacher-driven professional learning; such a community can provide an opportunity for educators to address needs in an engaging way. Also, the PAR framework for professional learning communities offers a compelling insight into the ways in which teacher research enters into teacher professional learning. The analysis of teacher talk in this study and the corresponding findings resulted in perspectives both unique to this community and intriguing for future work. The next two steps from the implications of this research are: (1) implementing the use of the PAR PLC framework for professional learning with other groups of educators in order to further explore its efficacy, and (2) using critical data analysis tools to further understand the talk of teachers in learning communities and what factors might enact positive change in that talk. As the educators in the PAR PLC grew accustomed to ways of using language to work together to get at their desires for improved writing instruction, the learning community itself took on unique language characteristics. Those characteristics indicate strength of purpose and engagement by those involved. The research suggests that this positive thinking runs counter to what some teachers think of when they think of professional learning, which tends to be rather negative (Darling-Hammond et al., 2009; Desimone, 2009; Timperley, 2008). After all, many components of practice may be considered development, but the intent is what makes the act professional learning. As such, the findings of this research on teacher talk provides an example of how certain contexts, frameworks, and interventions can positively impact the ways in which teachers professionally collaborate.

Conclusion

The educators in this PAR PLC on writing reported improved practice and engagement in the process of professional learning. The analysis revealed that their talk changed over time in this learning community. Given the time, the space, and the relative autonomy to meet, we worked together to create patterns of talk that facilitated our professional learning. The PAR PLC framework may not work for every learning community, but at the heart of it are those core tenets which promoted talk in a participatory way focused on action. That can be carried over into any teacher learning community hoping to engage in talk to construct knowledge toward improving instruction. The educators at the high school in this study say they will continue to recruit more teachers. In that way, the PAR PLC has become a sustained effort. The talk of this community may continue to change, but the ways in which those changes occur and based on what factors is the subject of future study.

References

Bakhtin, M. M. (1981). *The dialogic imagination: Four essays.* Austin: The University of Texas Press.

Bolam, R., McMahon, A., Stoll, L., Thomas, S., & Wallace, M. (2005). *Creating and sustaining professional learning communities* (Research report number 637). London: General Teaching Council for England, Department for Education and Skills.

Chevalier, J. M., & Buckles, D. J. (2013). *Participatory action research: Theory and methods for engaged inquiry.* London: Routledge.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks: Sage.

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the U.S. and abroad.* Dallas: National Staff Development Council.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualization and measures. *Educational Researcher, 38*(3), 181–199.

Desimone, L. M. (2011). A primer on effective professional development. *Phi Delta Kappan, 92*(6), 68–71.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*(8), 6–11.

Fairbanks, C., & Lagrone, D. (2006). Learning together: Constructing knowledge in a teacher research group. *Teacher Education Quarterly, 33*(3), 7–25.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry, 12*(2), 219–245.

Freire, P., & Macedo, D. (1987). *Reading the word and the world.* Westport: Bergin & Garvey.

Gee, J. P. (2014). *How to do discourse analysis: A toolkit*. New York: Routledge.

Krashen, S. (2013). *Second language acquisition*. New York: Cambridge.

Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Maxwell, J. A. (2012). *Qualitative research design: An interactive approach*. Thousand Oaks: Sage.

McIntyre, A. (2008). *Participatory action research*. Thousand Oaks: Sage.

McTaggart, R. (1997). 16 tenets of participatory action research. In Y. Wadsworth, *Everyday Evaluation on the Run* (pp. 79–80). Victoria: Allen and Unwin.

Mercer, N. (2000). *Words and minds*. New York: Routledge.

Newmann, F. M. (1996). *Authentic achievement: Restructuring schools for intellectual quality*. San Francisco: Jossey-Bass.

Razfar, A. (2012). Narrating beliefs: A language ideologies approach to teacher beliefs. *Anthropology & Education, 43*(1), 61–81.

Stake, R. (1995). *The art of case study research*. Thousand Oaks: Sage.

Thomas, G. (2010). Doing case study: Abduction not induction; phronesis not theory. *Qualitative Inquiry, 16*(7), 575–582.

Timperley, H. (2008). *Teacher professional learning and development*. Belley: International Academy of Education.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education, 24*(1), 80–91.

Watson, C. (2014). Effective professional learning communities? The possibilities for teachers as agents of change in schools. *British Educational Research Journal, 40*(1), 18–29.

Wells, G. (1999). *Dialogic inquiry: Towards a sociocultural practice and theory of education*. New York: Cambridge University Press.

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