To Adapt or Subscribe:
Teachers' Informal Collaboration and View of Mandated Curricula

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California public schools serve a highly diverse student population, including: 65% minorities, 24.9% English Language Learners, 10.6% disabled, and 19% in poverty (Quality Counts at 10, 2006). In the face of this diversity, all teachers are expected to use the Curriculum Frameworks of the California State Board of Education as a "blueprint for implementing the content standards adopted by the California State Board of Education and are developed by the Curriculum Development and Supplemental Materials Commission" (California State Board of Education, 2007a).

The Curriculum Standards for California Public Schools and *No Child Left Behind* (NCLB) appear to have a goal of equal access to education for all students. *Education: The Promise of America* states that the goal of the NCLB legislation is to ensure that "all children are proficient in reading and math by the 2013-14 school year" and to "to close the achievement gap that exists between students of different socio-economic backgrounds" (Office of the Press Secretary, 2004). According to the California State Board of Education, "Content standards were designed to encourage the highest achievement of every student…" (California State Board of Education, 2007), but it would seem that teachers may vary in their interpretation of the Curriculum Frameworks and NCLB , and the manner in which every student can reach their highest achievement.

A 2004 American Association of Family & Consumer Sciences Teacher Opinion Poll illustrates the disparity in teachers' beliefs regarding NCLB. Sixty-two percent of responding teachers say that they do not think NCLB has enhanced or will enhance the education of American

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children, and 37 percent respond positively regarding NCLB (Wilson, 2004). In regards to district, state, and federal mandates, it appears that teachers may make the final decision as to how they interpret and implement curricular standards, including NCLB, into their practice.

The initial objective of this study was to determine what factors govern elementary school teachers' informal collaboration (i.e., voluntary conversations) regarding technology use (computers, software and the Internet). The scope of the study, however, quickly extended beyond technology and informal collaboration, into teachers' practical theories (defined below). It became readily apparent that teachers' beliefs concerning implementation of mandated curriculum, and their academic expectations for students, seem to strongly influence with whom, and under what circumstances they may informally collaborate.

Conceptual Framework

We can understand beliefs teachers have that guide their practice as their practical theory. Practical theory is generally regarded as a set of beliefs that teachers conceptualize over the course of learning to teach (both through their teacher education and on-the-job learning) which assists with their work as teachers (Handal & Lauvas, 1987; Sergiovanni & Starratt, 1979; Goodman, 1988).

The construct of practical theory requires additional elaboration by the research community. Even as practical theory has gained attention in the research community, consensus has not developed on one definition or, in fact, a single term used to describe this construct. Practical theory is another common term used to refer to practical knowledge (Handal & Lauvas,1987), educational platform (Sergiovanni & Starratt, 1979), practical philosophy (Goodman, 1988), and schema (Bullough & Knowles, 1993).

While there are subtle differences among these formulations, the attention of most researchers has been on how practical theory is used regularly by teachers to understand students, content, teaching, classrooms, and how to act appropriately in the classroom environment. The present study uses the construct of practical theory, not to explore teachers' thoughts related to teaching, but to explore a previously unconsidered area of teachers' thought concerning their informal collaboration.

For clarification purposes, informal collaboration must be defined. A modified version of Cook & Friend's (1991) definition of informal collaboration describes it as direct interactions between at least two parties who voluntarily engage in, and have full discretion over, the process of working towards the goal of their choice.

Participant Selection

Due to the personal characteristics of informal collaboration, and the exploratory nature of this study, participant selection took place in three steps.

Step1: Questionnaire. The first stage entailed the administration of a questionnaire modified from Lima's (1998) work which was intended to determine if participants met the following criteria: (1) teaching a grade 2-6, (2) using technology with students at least once a month, and (3) willingness to participate. The questionnaire also identified a variety of forms and frequency of informal collaboration, and the number of people with whom participants informally collaborate.

Step 2: Frequency of Informal Collaboration. In a previous study regarding informal collaboration (Stevenson, 2004) the researcher studied teachers who were frequent informal collaborators (participants who collaborated one or more times per month). For the present study the researcher aimed to gain a deeper understanding of informal collaboration so frequent and infrequent informal collaborators were selected. The level of frequency of informal collaboration was determined through participants' responses on the questionnaire. There were 21 participants who fit the selection criteria. The seven highest frequent collaborators and seven lowest frequent collaborators were contacted. Of these 14, eight (four high and four low frequency) agreed to participate.

Step 3: Identifying Colleagues. To fully understand participants' engagement in informal collaboration, these eight participants were asked during the interview to identify colleagues with whom they informally collaborate. Six (three high and three low frequency) informal collaborators were identified and consented to participate. Therefore, there were 14 final participants, three males and 11 females, who taught second through sixth grade (see Appendix A). The participants were selected from three low- income schools, with high Latino populations. The pseudonyms for the schools are Willow, Birch, and Pine Elementary Schools.

School Sites

All three of the schools had existing relationships with the local university and were open to having research take place with their employees. Therefore, these three schools were chosen for their proximity, equal access to technology, and willingness to participate in research.

Willow Elementary School is one of the largest and oldest elementary schools in the area. It is also seen as one of the poorest schools in the community. It is a neighborhood school that serves 634 students in grades

K-6. Of these students, 95% are Latino and 2% are White. According to the Academic Performance Index Base Report (2003), 100% of students are on the National School Lunch Program, a free and reduced lunch program (California Department of Education, 2004).

Birch Elementary School is in an adjacent community and has a population that reflects its community. It is comprised of 379 students in grades 2-6. The student body population has 56% Latinos, 38% White, and 2.6% Asian-Americans. Of the Latino students, approximately 71% are native speakers of Spanish, and many of these students are recent immigrants from Mexico and Central America (California Department of Education, 2004a). Fifty-four percent of the children at Birch are enrolled in the National School Lunch Program (California Department of Education, 2004).

Pine Elementary School is located in the same town as Birch. Pine enrolls 392 students in grades K-5 and is situated on a large grassy expanse next to the ocean. The student population is 73% Latino and 21% White. Of these 392 students, 59% are enrolled in the National School Lunch Program (California Department of Education, 2004).

Data Collection and Analysis

An ethnographic interview was designed, piloted, modified based on the pilot, and used to determine teachers' beliefs about informal collaboration. During the interview, participants identified colleagues with whom they informally collaborate, described recent conversations, and explained reasons for choosing these colleagues (See Appendix B). Participants were also asked if their colleagues possessed similar views of the curriculum (no definition of this term was provided to participants). Participants' interpretations of the view of the curriculum appear to include both a teacher's stance towards the implementation of district-mandated curriculum and academic expectations for students. (Without elicitation from the researcher, participants described themselves and others in terms of having high or low expectations for students. Academic expectations could be understood as the beliefs that a teacher has about the capability of his/her students to undertake academic tasks.) The interviews were tape recorded and then transcribed.

The transcripts were subjected to Constant Comparative Analysis in order to identify common themes and patterns by repeated reviews of the interview data corpus (Glaser & Strauss, 1967). The main topics were coded and included personality factors, teaching factors (e.g. sharing a common curriculum), view of the curriculum, and comments that reflect higher-level and lower-level thinking according to Bloom's Taxonomy (Bloom, 1956).

Bloom's taxonomy refers to six types of learning objectives. For the purposes of this study, participant statements coded as addressing knowledge, comprehension, or application, according to Bloom's taxonomy were considered as statements that reflected lower-level thinking objectives for students. Statements that were coded as representing analysis, synthesis, and evaluation according to Bloom were classified as representing higher-level thinking learning objectives for students.

Statements that represented participant's learning objectives for students were identified in the data corpus. These statements were then coded according to Bloom's taxonomy, classified as higher-level thinking or lower-level thinking, and then counted.

Coded Factors Contributing to Informal Collaboration

Previous research on collaboration (e.g., Lima, 1998; Lortie, 1975; Lohman & Woolf, 2001) among teachers makes reference to the effect that personality factors and sharing common curriculum have on teacher collaboration. The present study had analogous findings, but also found that a similar view of the curriculum appeared to play a role in participants' choice of with whom to informally collaborate.

Personality and friendship. A key characteristic of informal collaboration is that teachers voluntarily choose with whom and under what circumstances they will informally collaborate. Therefore, one could expect that personality factors and friendship play a role in participants' choice of with whom they will informally collaborate. Even Lortie (1975), who is best known for his work on teacher isolation, observed that teachers chose whom to work with based on friendship.

In the present study all fourteen participants made reference to personality factors (e.g., enthusiasm, friendliness) as influencing the choice of at least one of the people with whom they choose to informally collaborate. This supports the work of Lima (1998) who found that teachers interact more with friends than with acquaintances about professional matters and two-thirds of all professional relationships involve friendships between teachers.

Sharing grade level curriculum. Prior research (e.g., Zahorik, 1987) indicates the importance of interactions among teachers at the same grade level. All but one of the fourteen participants in the present study identified at least one grade level colleague as a person with whom they informally collaborated. In reference to a similar curriculum, Sarah (names of all participants are pseudonyms) commented on the role her grade level colleagues played in informal collaboration by saying, "…you tend to kind of hang out with the grade level because that's where all the

work is" (169) (Please note with direct quotes that the line numbers from transcripts are provided). A previous study by the present researcher found that teachers most frequently informally collaborated with colleagues at their grade level (Stevenson, 2004). This supports the work of Lohman & Woolf (2001) who reported that teachers found their most productive collaborative experiences occurred when they worked with other experienced teachers at the same grade level and with whom they had long-term relationships.

Similar view of the curriculum. Merely sharing a grade level curriculum did not ensure informal collaboration among participants. It appeared that sharing a similar view of the curriculum played a central function in participants' choice of with whom to informally collaborate. In the present study the view of the curriculum seemed to represent a portion of a teacher's practical theory. Since this component has not been well researched in regards to informal collaboration, and it is a major finding for the present study, it will be given a larger consideration in this article.

Assertions

One main assertion and two sub-assertions are supported by the results from the present study. Each assertion broadly addresses the research question, "What factors govern informal collaboration among teachers?"

Main Assertion:
Practical theories serve to govern teachers' participation in informal collaboration with their colleagues.

It is thought that a teacher's practical theory probably consists of numerous components. Previous research (Copeland & D'Emidio-Caston, 1998) on educational purposes identified goals and expectations teachers have for their students as components of practical theory. The present study has revealed the possibility of two other components of teachers' practical theories, their stance towards the implementation of the curriculum and their academic expectations for student performance.

During the ethnographic interview, when asked if participants would informally collaborate with people who possessed a different view of the curriculum, 13 out of 14 participants said, "No." There were numerous statements from participants expressing their reluctance to informally collaborate with people possessing a different view of the curriculum from their own. Grace expressed her unwillingness by exclaiming, "Absolutely not! No, I don't know why I would" (153).

The issue raised by this consistent participant position that they do not want to collaborate with colleagues who possess a different view of the curriculum, is what do participants consider to be their view of the curriculum? How do they think that their view differs from other teachers at their school?

View of the curriculum appeared to include both a teacher's stance towards the implementation of district-mandated curriculum and academic expectations for students. A teacher's stance towards the implementation of the curriculum (also referred to as their curricular stance) falls into two categories, and is discussed in Sub-Assertion 1. The first category, Subscribers, consists of teachers who adhere strictly to district-mandated curricula. The second category, Adapters, are teachers who modify district-prescribed curricula in ways they believe best meet the needs of their students. Teachers' academic expectations for students are explored in Sub-Assertion 2, and are perceived as being generally high or low in nature.

Sub-Assertion 1:
Teachers tend to informally collaborate with colleagues who have a similar stance towards implementing the district-mandated curriculum.

Most California school districts prescribe for use in their classrooms particular curricula and materials that are adopted by the state, and aligned with the California State Content Standards for each grade (K-8) and subject (California Department of Education, 2006). The state and district also require that teachers administer standardized tests to assess students' performance, and in the end, teachers' ability to teach. Teachers are therefore held responsible for meeting the content standards as outlined by the state.

Ultimately, however, teachers have the final say in how they choose to teach or not teach to the Content Standards for California Public Schools (which are represented in curricula mandated by their school districts) and the manner in which they interpret the Content Frameworks for California Public Schools. One participant, Adam, eloquently illustrated this point when he said, "…when it comes down to it, you know, what happens in your classroom, the state has its idea, and then the district, and the principal, and then it gets down to teachers do what they do in the classroom" (256). Many teachers do not feel, however, that they have the freedom to adapt the standards and materials (particularly scripted curricula) prescribed by the district, or feel afraid they will be reprimanded for pursuing an adapted view of the standards or materials. Katherine expressed this point by stating,

> …people who have really a lot of good ideas a lot of times don't do them. Or they go in their room and shut the door, so they can do it and not get in trouble. But then you can't talk with them, because if you talk about it, and get in trouble, you don't have a job. (100)

Through comparing themselves to their colleagues, participants expressed their beliefs about or stance towards the implementation of the district curriculum. These beliefs varied from strict adherence or subscription to the district materials, to supplementing and adapting district materials and curricula where the teachers felt it appropriate. Thus the terms Subscriber and Adapter will be used herein to represent the observed stances that participants appear to have towards the implementation of the district curriculum.

Subscriber. Subscribers are teachers who tend to make only minimal modifications to the district curricular materials and specific content standards for students. Though participants did not use the term Subscriber, they frequently referred to this view of the curriculum. As a veteran teacher with 37 years of experience, Dawn (see Appendix A) observed that,

> I think teaching has changed a tremendous amount in that time, so we're not quite as free to be creating our own materials, which is nice in a way, because that's hard, but we're also really trying to follow the state standards as much as we can, and the textbooks which lead to those state standards. (133-134)

Rita expresses a similar stance towards the implementation of the district curriculum through her statement that, "I would say that I follow the curriculum that we're supposed to follow pretty much to a 'T'" (190). In the cases of these Subscribers, meeting state standards and using district materials is paramount. Betsy expressed a similar Subscriber stance when she said, "I'm not going to sit there and play little games when I have 300 pages in the math book that I haven't covered…you know, [and I have] to cover [them] in about two months" (321).

Adapters. Adapters are teachers who regularly modify or supplement district curricular materials and content standards. They still tend to focus on meeting content standards, but do not feel they need to adhere strictly to district materials in order to accomplish teaching their students a standard. This ability to adapt the curriculum is illustrated by Katherine when she said,

> So if the district said this child will be able to read and comprehend fourth grade material, you could go the route of, okay, I'm going to do the reading program, blah-blah-blah, or you could say, we're going to do an integrated unit on cities, and we'll use this book, this book, this

> book, and this book, and they'll get their reading comprehension books from there (72).

Adapters appear to still feel obligated to meet the state content standards, but may do so in ways different from the district-mandated curricular materials. Eva claimed, "The state tells us certain things have to be…I mean, we know what the kids are going to be responsible for learning and so that has to all get done, but how we do it is different" (127-129).

Many Adapters appear to value creativity, and allowing their students more freedom to thoroughly explore topics of their choice. While comparing himself to Mary who also identified herself as having an Adapter stance, Adam mentioned characteristics of their teaching that set Mary and him apart from many other teachers. Adam said, "I think the similarity is giving more independent work, and giving choice, and valuing creativity, whether it's in written form or visual" (161).

Subscribers' and Adapters' views of each other. Katherine summed up the differences between Adapters and Subscribers by saying, "What I think is, some people are willing to buck the system, and some people think they have to do what the district tells them to do" (98). Throughout the data corpus there were instances in which Subscribers and Adapters expressed their views of each other. Adapters again seemed to stress the importance of adapting the district curriculum. They appeared to have a difficult time understanding why others strictly follow the district-prescribed curriculum and materials. Katherine goes on to say,

> And what I see [here] a lot, is a lot of people who say, you know, I'd like to do that but the district says we have to do this. I guess maybe [in a previous place I worked] we had more rebels, where it was like, I want to do this, so I'm going to do this. (98-99)

Rita, a Subscriber, was concerned that Katherine, an Adapter at her grade level, may not emphasize the basics enough. Rita discussed her view of Katherine by saying,

> Katherine does follow the curriculum, but she does it in a very different way, and she goes kind of a roundabout way. She is wonderful with the children because she instills a lot of…she tries to help them with their self-esteem, which is just wonderful. But she's not the three R's, you know, reading, writing, math. She's more into having discussions on how to get along…which I totally admire. But I feel a lot of pressure to have my children achieve on the test scores, so I'm probably a little more structured, and a little more old school in the facts, instead of an open alternative school. (192-196)

Subscribers appear to be concerned about whether the students of Adapters are actually being taught the standards. Nora said,

> …basically if she never opens the textbook and she doesn't do any of the stuff, the curriculum that's supposed to be mandated by the district, there's not much accountability as far as what the teachers use, so she'll use her own resources. She still teaches, but she does it her way, and she does it with packets and her materials, and the stories that she wants the kids exposed to. So they don't get any science all year, but they get all reading and some social studies. (267-272)

Nora believes that some Adapters are able to meet the district standards because she went on to describe Mary, an Adapter at her grade level, whom she feels does meet the district standards with her own materials.

> Mary, she uses the curriculum quite a bit, but since she has GATE (Gifted and Talented Education), she's kind of similar to Pat in the sense that she'll use her own materials, but she doesn't use her own materials to replace the concepts, or the curriculum that's there. (328)

Nora goes on to say about Mary, "So in that sense she does choose her own materials, but she doesn't neglect the skills that are supposed to be taught" (333).

Collaborating and holding a similar stance towards implementation of the district curriculum. As shown in Figure 1, Adapters usually collaborate with Adapters, and Subscribers choose to collaborate with Subscribers. Please note, as mentioned earlier, that Katherine, an Adapter with the highest frequency of comments related to higher-level thinking activities for students, and Dawn, a Subscriber who possessed the highest frequency of statements exhibiting lower-level thinking activities for students, did not mention regularly collaborating with anyone at their school site. They both commented on teachers with whom they had collaborated in the past. The former colleagues they mentioned appeared to hold a curricular stance similar to their own.

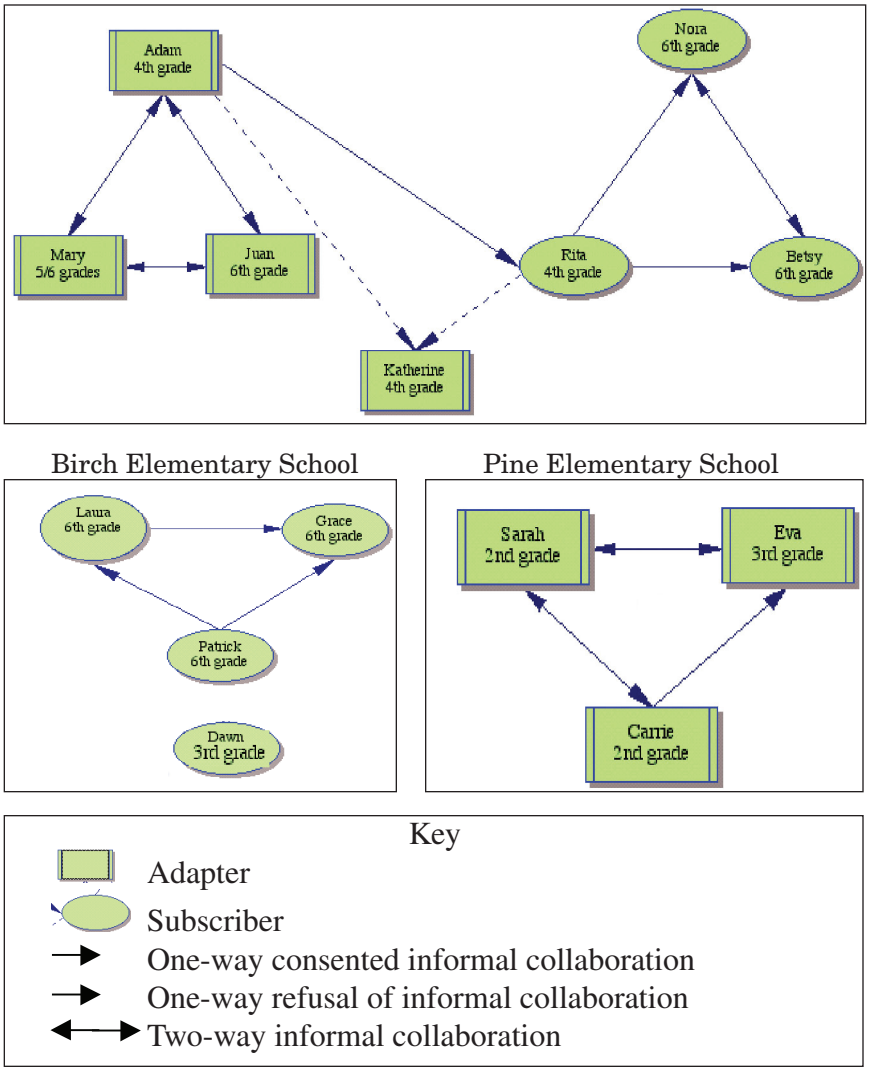
For example, Katherine commented on how closely a past colleague shared her view of the curriculum by saying,

> I think we were twins. We really were. We both…we had the district standards, and we both knew that what was important was to reach the point where the kid had the skill. It didn't have to be done the way they might do it in basal readers. (71)

She went on to mention the specific traits they shared and how they were similar,

> We both had a healthy disrespect for district rigidity. And if we thought the district wasn't going to go for something, we just didn't tell them, and we did it anyway. And we didn't rat on each other, so we didn't get in trouble when we weren't doing it exactly by the book. He was perfect. He really was. (81-82)

Figure 1.
Informally Collaborative Relationships Among Colleagues at Willow, Birch and Pine Elementary Schools.



It was difficult for Dawn to think back, but she recalled two teachers with whom she particularly enjoyed collaborating. Dawn described informal collaboration with Shelia (a colleague who is not a participant in the present study) by saying, "She's very artistic, I'm very musical,

and so I would teach her music and she would teach my art. So we were constantly in each other's rooms" (113-114). Dawn noted that she and Shelia had "very similar" (120) views of the curriculum, and that she missed being able to collaborate with Shelia today. Dawn said, "That was quite a while ago and she just moved to [another school], so I miss her" (110).

Collaborating and holding a different stance towards the implementation of the curriculum. The relationship between Adam and Rita is of particular interest since at least from Adam's viewpoint it is the exception to the assertion that teachers choose to informally collaborate with people who have the same curricular stance. Adam mentioned Rita as someone at his grade level with whom he informally collaborates. He acknowledged their differences by saying, "…we do have different styles and different things to draw upon, so that's sort of what encourages me to talk with her" (48). He also noted their similarities by stating, "…I think we're pretty similar in that way, to see what the kids need" (49). Adam appreciated her enthusiasm and willingness to lend him materials, and did not feel drawn to the other members on his grade level team. In this case, personal attributes may be a major contributing factor to this collaborative relationship. Adam mentioned that there were some personality conflicts on his grade level team and Rita was one of the "smoother personalities to work with" (120).

Rita, however, did not choose Adam as someone with whom she would informally collaborate. In fact she mentioned how much she values structure and commented on the fact that, "Adam, I think is a little less structured" (202). As you can see from Figure 1, Rita's choices of whom she collaborates with (fellow Subscribers Nora and Betsy) support the assertion that participants choose to collaborate with colleagues who share the same stance towards the implementation of the district curriculum.

Willingness to collaborate but unable to find others with a similar stance towards the implementation of the curriculum. Two participants with the highest frequency of comments related to higher-level thinking activities for students (Katherine and Mary, respectively) and one participant (Dawn), with the lowest frequency of comments related to higher level thinking, all had low levels of informal collaboration despite their desire to collaborate. This lack of collaboration may be attributed to the fact that they were unable to find someone at their school site with whom they shared a similar stance towards the implementation of the curriculum.

Katherine conveyed her disappointment in not having colleagues with whom she can informally collaborate by stating, "It's so sad, I hadn't even reflected on how little collegiality I'm really having this year. But

it's not good. It's a desert" (233). When asked if there was anything that would help Katherine collaborate more she said,

> I think it would just need to be somebody who philosophically would get along with…if the person says, oh, I've got a great tech unit, and it's nothing but turn on the computer and do the worksheets on the computer, that wouldn't work for me. If it's somebody who says, oh I've got this program where first they learn how to do a search, and then I do this with them, and then they learn to do this, to display their project on the computer, I'd say teach me, teach me! (241)

Mary taught a fifth and sixth grade level combination GATE class. Although there were other fifth and sixth grade teachers at her school site, Mary commented that, "They don't do anything at all that I do. So there's nothing to talk about" (246-247). Towards the end of her interview she mentioned her disappointment in not finding someone with whom to collaborate, "I miss it terribly, not having that collaboration. It was so much richer when we were able to collaborate together, and we would have constant conversations, every single day, about how we could make it better" (466-467).

Dawn mentioned that she did not believe that there were people who shared her view of the curriculum. She felt this was particularly true in regards to technology. Each week Dawn makes a point of having her students engage in twelve different centers which include activities such as phonics games, listening to foreign language tapes, and completing a puzzle that is a map of the United States.

Some of the centers Dawn uses with her students include software games. There are a few higher-level thinking games, such as Math Blaster® (a game in which students have to purchase supplies and make decisions with limited resources to assist pioneers on their Oregon Trail trek), but the majority of the software games assigned to students entails lower-level thinking skills such as basic spelling, or math facts. Dawn purchases a great deal of software with personal funds and feels she has software and resources that others do not. She said she does not talk with other teachers at her school site because, "You know . . . I'm using things that they aren't using" (22). There was a time when she had written a district manual on software and she was giving formal presentations which resulted in informal inquires about the software she reviewed. She mentioned that, ". . . [the workshop] was formal, but informal[ly] people were calling me and saying, 'how do you do this and how do you do that?'" (38). She has not had many conversations since that time because she does not feel like she can share her excitement about software with others who are unable or unwilling to use their personal funds to purchase the software she is using. When asked if she

would collaborate with someone who shared her excitement for computer software, Dawn proclaimed, "Oh yeah, absolutely. It's my hobby" (250-251). Once again, this suggests that teachers tend to gravitate towards talking with colleagues who share their view of the curriculum and what is important to teach.

These three participants' comments suggest that despite their desire to collaborate with others, teachers appear to mainly want to collaborate with others who possess a similar stance towards the implementation of the curriculum. Thus, it seems that their lack of success in finding colleagues who possess practical theories concerning stance towards the curriculum was an influential factor contributing to the low levels of informal collaboration for these participants.

Sub-Assertion 2:
Teachers' perceptions of the academic expectations that other teachers have for their students is a factor that influences the formation of informally collaborative relationships.

Teachers' academic expectations for their students express the degree to which teachers believe their students can reach district curricular goals. Regardless of how teachers were exposed to the idea that high academic expectations influence student learning, they appear to believe in its importance for student achievement. Throughout the data corpus, nine participants, five Adapters and four Subscribers, commented on the importance of high expectations for students. There were 21 different instances mentioning academic expectations with 14 instances discussing participants sharing high expectations, three instances mentioning colleagues with higher expectations for students than themselves, and four instances of lower expectations.

Most participants mentioned instances of sharing similar high expectations (14 instances). An example comes from Nora, who said when referring to Betsy, "So we know that they need the extra help, and we both have an attitude of just not enabling students to kind of go along with the, 'Oh, I don't' know'" (128). She continued, "And not just spoon-feeding them. And, expecting really high…a high level of effort and dedication…"(132). Some participants also made more direct statements, such as Sarah's view of Eva. When questioned about if they shared a similar view of the curriculum Sarah explained, "[we're] similar in the way that we have high expectations" (87).

There were three instances in which participants mentioned that colleagues they collaborate with had higher expectations than they did. Laura claimed that Pricilla's (a colleague who did not take part in the

present study), "standards are really high, often higher than mine" (100). Two other participants mentioned Laura and Pricilla as colleagues they most enjoyed collaborating with, but found that their high expectations for students may cause the colleagues with high academic expectations some frustration. Adam said of Mary, a teacher at his school with whom he collaborates, "…she always has high expectations for them, and holds them to it" (165). He goes on to say, "I wanted to say she's more impatient, but I think sometimes again her expectations are higher than the children can reach, just because of their experiences" (179). Nora said of Betsy, a Subscriber colleague with whom she collaborates, " [We are] similar in the sense [that] we both have the high expectations, but at the same time, and that same area different, I think she thinks they could go at a much faster pace than I think they can" (179).

Overall, however, there appears to be an underlying message that high academic expectations are desirable and low academic expectations are unacceptable, regardless of one's stance towards the implementation of the district curriculum. The following quotes, such as Carrie's illustrate this point. Carrie's frustration with one of her colleagues who possesses low academic expectations seems to transcend a stance towards the implementation of the district curriculum, as she claims,

> Just the way she believed that they learned and oh, they can't do that. Oh no, that's going to be too hard. No, we're not going to do PowerPoint because that's just too hard. And that kind of stuff, I can't work with, so I avoid her, you know, completely. (377-382)

Adam and Katherine are both Adapters who teach the same grade level and school site. Katherine has the highest frequency of comments related to higher-level thinking activities for students but is seen by her colleague Adam as having low academic expectations for students. Due to Katherine's low academic expectations, Adam is not willing to collaborate with her. Adam observes that, "She almost makes exceptions for them, that keeps them from really achieving higher" (311). Adam continued by saying,

> But for me it seems like when we get in team collaboration, she's …you know, when we come up with a project, or a lesson, and she says, well, that's just too hard, or that's too much for them. Sometimes I feel like it's just not pushing them enough. (315-316)

So even though they are the only two people at their grade level that share a similar stance towards the implementation of the district curriculum, Adam will not collaborate with Katherine because of what he perceived to be her low academic expectations for students. Katherine's statements supported Adam's view that she had low academic expecta-

tions for her students' performance and did not believe her kids could meet the district standards. Katherine said,

> And my personal take on it is, I know my kids are not going to meet all the California State Standards for fourth grade because the California State Standards for the fourth grade are unrealistic. It's impossible, unless it's some kid who's on the high IQ, who had parents from the time they were babies feeding them all these thinking skills and stuff, and they're just way out there on the curve. You know? (128)

It is interesting to note that even though Katherine has the most frequent mentions of activities utilizing higher-level thinking, her colleagues identify her as having low expectations. This may be attributed to the fact that she engages her students in higher order thinking activities based on thematic units, and is particularly concerned with her students' affective states. She is also concerned with their self worth and confidence, and she attempts to set students up for success instead of failure. Rita commented on Katherine's tendency to focus on students' affective well being when she said, "She [Katherine] is wonderful with the children because she instills a lot of…she tries to help them with their self-esteem, which is just wonderful" (193). Adam expresses his concern that Katherine does not push her students. As expressed above, she believes the state standards are out of reach for her students. This belief most likely contributes to being perceived by her colleagues as possessing low expectations for students.

Low academic expectations for students and stance towards the implementation of the curriculum appear to be components of teachers' practical theories that play a role in with whom they choose to informally collaborate.

Discussion

For many educators there is an obvious disconnect between the mandates imposed by NCLB, and how teachers envision they can best meet the needs of their students. This dichotomy forces teachers to evaluate their deep-seated beliefs about what should be taught, whether that includes strict adherence to curricular standards, or a modified version of mandated curriculum. Teachers' beliefs about implementing mandated curriculum and their academic expectations for students contribute to the base of beliefs that constitute a teacher's practical theory. The present study explores the role that teachers' practical theories play in with whom and under what circumstances teachers will informally collaborate.

The findings from the present study constitute a beginning towards exploring the role teachers' practical theory plays in the regards to in-

formal collaboration. A question to further investigations may be, "Does teachers' practical theory, including their stance towards the implementation of the curriculum and their academic expectations for students, affect areas of teachers' work beyond their informal collaboration with colleagues?" This raises the question, "Do these components of teachers' practical theory stay constant across other areas of teachers' practices (e.g., what to teach and how students are engaged in instruction)?"

It seems logical to investigate if there is a preferred stance teachers should hold towards implementing curriculum, however, it may be more informative to understand the role stance plays across various areas of teachers' work. Questions to explore include the following: Should stance towards implementing curriculum be taken into consideration in the hiring process of teachers? How, if at all, do teacher education programs' curriculum and affiliates (i.e., professors, supervisors, cooperating teachers) influence pre-service teachers' stance towards implementing curriculum? Should professional development acknowledge or prescribe a certain stance towards implementing curriculum? A promising direction for future research may be to confirm these typologies of curriculum implementation, and then examine whether student learning outcomes differ by the stance teachers adopt.

This study presents several assertions pertaining to participants' informal collaboration concerning and practical theory that may serve to guide future research into this important area. Increasing researchers' understanding of this phenomenon may help to steer policies and practices concerning informal collaboration and curricular standards such as NCLB, that could contribute to enhanced teaching and learning for teachers, and their students.

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Appendix A

Demographics on Participants

Participant	Gender	Grade Level	Years Experience
		Willow Elementary School	
Adam	Male	4	13
Katherine	Female	4	12
Rita	Female	4	4
Mary	Female	5/6	6
Nora	Female	6	7
Betsy	Female	6	4
Juan	Male	6	10
		Pine Elementary School	
Sarah	Female	2	27
Carrie	Female	2	5
Eva	Female	3	22
		Birch Elementary School	
Dawn	Female	4	37
Grace	Female	6	18
Laura	Female	6	23
Patrick	Male	6	2

Appendix B

Interview Protocol: Informal Collaboration

Step #1 – WELCOME

Thank you for taking the time to meet with me today.

Step #2 – DEFINITIONS

Interviewer: I'd like to talk with you today about conversations you might have with other teachers. Teachers sometimes collaborate with each other, sharing ideas and seeking solutions to problems they might be having, You do that, right?

Respondent: Respond, hopefully affirmative.

Interviewer: I want to talk today especially about collaboration with others that is informal. That is, talking with others that is informal and voluntarily, that is, that you are able to decide whether you do it or not. An example would be a little conversation you might have in the hallway or copy room. OK? (Seek Respondents affirmation).

Respondent: Agrees, perhaps nonverbally.

Interviewer: Especially I'd like to talk about informal collaboration regarding the use of technology in your classroom. By technology, I mean the use of computers, software and the Internet to help students learn. Do you use technology in some way in your classroom?

Respondent: Agrees, perhaps nonverbally.

Step #3 – ELICIT TARGET OF COLLABORATION

Interviewer: Does a particular person come to mind with whom you informally collaborate with about technology?

Respondent: Responds affirmative and names person.

B. If person not named.

Interviewer: Who is that person? Can you tell me about a recent conversation you had about technology?

Respondent: Describes content

C. If content is NOT Curriculum.

Interviewer: What else do you talk with this person about? (Repeat three times).

If no curriculum mentioned, ask:

Interviewer: Does another person come to mind with whom you informally collaborate with about technology?

Repeat B. After three repeats, if not "curriculum" go to "THANK YOU."

D. IF content IS Curriculum, go to Step #4.

Step #4 – ELICIT DESCRIPTION OF COLLABORATION

A. *Interviewer:* Can you tell me more about this conversation that you had. Listen for and probe each of the following.

Value: What were the benefits of this conversation for you?

Did this conversation have any bearing on how you planned a technology lesson? What about how you taught that lesson?

Did this conversation have any value for you beyond your planning and teaching of a particular lesson?

IF "yes," ask to elaborate.

Interviewer: Can you think of another conversation you had with this person about technology?

If respondent responds "yes" repeat above.

ELSE: Probe to be sure.

B. If really no other conversation, then ask:

What is it about this person that makes you welcome collaboration with them? Why choose them?

In what ways are this person's views of the curriculum and what is important to teach similar to or different from yours?

In what ways are this person's views of children and how they learn similar to or different from yours?

How essential is this person to the success of your planning and teaching?

Interviewer: Can you think of somebody else you have had a conversation like this with about technology?

If respondent responds "yes," repeat Step #3 until three or four people are identified.

ELSE: Probe to be sure. If really nobody else, go to STEP #5

Step #5 – ELICIT THOUGHTS ON COLLABORATION

Interviewer: Are there other people in your school who have views about

the curriculum and about how children learn that are different from yours?

If "yes," Do you tend to collaborate with them about technology? Why?

What are the benefits of these types of conversations with other teachers about ideas regarding technology?

Step #6 – FOLLOWUP

Is there anything you can think of that would make you share ideas or interact with other teachers more about ideas regarding technology?

What might make you have these conversations about technology ideas less?

As a former teacher I realize that teaching takes a great deal of time inside and outside of the classroom. So, excluding time, what prevents you from talking more about technology ideas?

So, if I could sit on your shoulder or in your pocket while you were interacting with other teachers about technology what feelings would I sense from you?

Is there anything else you think I should know about teachers and informal collaboration regarding technology?

Step #7 – THANK YOU

Thanks for taking the time to share your experiences with me. I appreciate your time and hope to see you again. Please feel free to contact me at the university anytime (provide email address if participant doesn't already have it).