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What Matters is Mutual Investment and Evidence-Based Dialogue Designing Meaningful Contexts for Teacher Learning

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What Matters is Mutual Investment and Evidence-Based Dialogue: Designing Meaningful Contexts for Teacher Learning

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Abstract

How might teachers be supported as professional learners, in activities and conversations that assist, rather than distract from, the complex work they do each day? In this article we describe a public school/university partnership model designed to support practice-oriented communication among educators—where professionals from various roles, institutional affiliations, and experience levels, communicate together about the details of their teaching. We outline the principles behind our approach and describe the specific practices we use to promote communication that engages teachers’ pedagogical thinking. We share how teachers’ own practice can become a centerpiece of professional development, and how authentic questions and evidence help educators develop insights into the relationship between their own assumptions, curriculum materials, and student understanding.

“I really want to get better at my teaching, but I’m not finding a way to do that.”
“I can get teachers together, but sometimes it goes in so many directions. How do you keep the talk focused and productive?”

Both comments came to us in the same week. The first came from Paula, a second-year high school English teacher, a former graduate of our teaching program, whose comment revealed her struggles to find meaningful pathways for professional growth. The second came from Teri, a seasoned district administrator and science curriculum specialist, whose task it is to support teacher learning. For Teri structuring teacher learning, especially productive teacher talk, remains highly challenging.

Such comments reflect a clear pattern in our work with teachers and school districts. We hear frustration among teachers in locating meaningful opportunities for professional growth, as well as difficulty among school leaders in designing contexts for teacher learning. Indeed, we often wonder ourselves: How might teachers be supported as professional learners, in activities and conversations that assist, rather than distract from, the complex work they do each day?

These comments contrast with those we have heard in our work in a school-university partnership:

“I appreciated the specific structure of today’s meeting. We were able to dive deeper into a specific issue and student work. These studies are valuable because they allow us to focus on, learn from, and discuss common experiences. I look forward to all the perspectives we bring and how much I learn as a result.”

What might account for such different perspectives on professional development? For five years, we have been developing a partnership model designed to support practice-oriented communication among educators—where professionals from various roles, institutional affiliations, and experience levels, communicate together about the details of their teaching. Our
model brings together different generations of educators—pre-service teachers, mentor teachers, administrators, and teacher educators—to investigate curriculum and pedagogy, express uncertainties, and verbalize the many tensions faced in teaching (Hamel & Ryken, 2010; Hamel & Ryken, 2006). We are especially interested in how rich teacher dialogue might influence teacher growth, in a time when “dominant discourses position teachers as passive recipients of others’ expert knowledge, rather than as knowers in [their] own right” (Luna, et al, 2004, p.69).

We report here on the principles behind our approach and the specific practices we use to promote communication that engages teachers’ pedagogical thinking in a multi-generational context.

**Models of Partnership**

We position our partnership work between two models of school-university partnership: informal partnerships and professional development schools. Table 1 compares these models, their purposes, structure, and central practices.

*Table 1*

<table>
<thead>
<tr>
<th>Model</th>
<th>Informal Partnership (Typical Internship)</th>
<th>Intentional Partnership</th>
<th>Professional Development School</th>
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<tbody>
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<td>Focus</td>
<td>Negotiating two worlds</td>
<td>Enhancing intersections</td>
<td>Restructuring systems</td>
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<tr>
<td>Purpose</td>
<td>Placement of pre-service teachers</td>
<td>Dialogue &amp; program re-thinking</td>
<td>School and teacher education congruence and reform</td>
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<td>Structure</td>
<td>Internship placements</td>
<td>Purposeful Set of Meetings</td>
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<td></td>
<td>Student teachers and supervisors as conduits between school and university</td>
<td>Systematic crossing of multiple voices</td>
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<td>Central Practice(s)</td>
<td>Maintenance of existing relationships</td>
<td>Discussion of student learning artifacts</td>
<td>Collaborative inquiry/research</td>
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From our own experience with local schools, we identify an “informal partnership” as a school site where we have created successful internships (observation and student teaching experiences) with mentor teachers and principals for several years, often mediated through one-on-one relationships between specific individuals. Informal partnerships exist where principals consistently agree to work with our students, where a handful of mentors know our program well, and where our pre-service students consistently report positive internship experiences. At the other end of the spectrum, a professional development school (PDS) is a programmatic, capacity-building relationship that emphasizes system-building across educational institutions, rather than a set of informal connections between institutions. PDS’s strive for congruence between university and school settings and involve developing ongoing governance structures and collaborations to support “common vision” and “joint work” (NCATE, 2001).
By contrast, the intentional partnership model focuses specifically on cultivating dialogue and hearing different points of view. The central aim of our intentional partnership is to cultivate substantive communication events – productive dialogue between individuals who are positioned very differently in relation to pre-service teacher growth. The primary goal, in the words of Cochran-Smith (2000), is to “help make visible and accessible everyday events and practices and the ways they are differently understood by different stakeholders in the educational process” (p.167). We are particularly interested in how the intentional crossing of voices makes visible various forces, interests, and pressures that shape conceptions of teaching and learning across institutions.

Designing Communication Events

Powerful teacher learning must be grounded in rich communication events—conversations that include multiple perspectives and make teaching practice public (Lieberman & Pointer Mace, 2010). Effective teachers grow through participation in professional learning communities which inspire both trust and a culture of inquiry about student learning (Bloom & Vitcov, 2010; Dufour & Marzano, 2009). Yet, Goodlad (1988) has argued that among the many elements necessary for a healthy teaching community, shared inquiry is the most difficult element to achieve, “the most deceptively subtle in [its] mature functioning and the least likely to be diligently cultivated” (p. 20). In our experience, even when educators are provided time to talk, or are ready and willing to dialogue about teaching, they may struggle to enact a process that facilitates focused, generative communication about the details of classroom practice.

Our approach emphasizes two elements: context and protocol. Context matters and is shaped by who comes together to talk and what teachers talk about.

Who comes together? Mutual investment is key. In our work teachers and teacher educators find mutual investment in the growth and professional development of pre-service teachers. We have found that groupings that include mentor teachers and teacher candidates in the same building, university supervisors, teacher educators, and building administrators create multi-generational and motivated discussions on classroom practice. However many other groupings are possible; groups having mutual investment could draw from grade level teams, paraprofessionals, school specialists, district curriculum specialists, and even parents.

What is talked about? Teachers highly value discussions that are relevant to their everyday teaching practices. As Deborah Ball (1997) suggests, one of the best things teachers can do to develop their thinking about students is to “look together” at student work. Classroom-based evidence, such as student work or curriculum materials are natural problem-solving texts because they are contextualized within a particular classroom, and they often make student thinking central to teachers’ talk and professional growth. In addition, discussing student work allows the voices and thinking of school children to be part of the conversation. For example, in November 2009, looking at two fifth grade student lab book pages and a sample experimental set up, the group discussed a specific question: How are these two students understanding the saturation problem? In March 2011, examining Read Well fluency assessments in a first grade classroom, the group discussed a question posed by a student teacher: What changes are possible to make reading more meaningful and engaging for students?

Protocol matters because strong professional development is formed through participatory routines that educators find efficient, thought-provoking, and connected to their work. We have developed three meeting practices to foster collaborative dialogue and reflection:
1) a multi-vocal planning process, 2) discussion of an authentic classroom-based question in relation to evidence, and 3) reflection on the meeting discussion.

Planning for a Meeting

We have developed a “multi-vocal” planning process to ensure the interaction of multiple perspectives at the very center of the meeting design. Specifically, a few days before each partnership meeting, a pre-service teacher, his or her mentor teacher, and a university teacher educator meet for an hour to discuss the dilemmas the pre-service teacher is experiencing, to consider classroom-based evidence, and to generate discussion questions. By talking through the dilemma with two other educators, the pre-service teacher clarifies his/her thinking, rehearses presenting a dilemma, and considers multiple perspectives in framing the dilemma. Mentor teachers can typically provide background about district curriculum materials and pose questions about how to describe the learning context to other educators. University teacher educators examine the classroom-based evidence and pose questions about the relationship between the dilemma and the evidence. Engaging different generational and institutional perspectives is important, because it helps in framing questions that can engage all participants and deepen the potential for conversation.

For example, in preparing for a recent meeting, the planning discussion enabled a pre-service teacher to revise her choices for student evidence. To begin the planning meeting the pre-service teacher was invited to describe the learning experience, her dilemma, and samples of student work generated during the lesson. She described a science lesson in which fifth grade students dissolved salt in water to reach the saturation point. She shared four students’ written explanations about how they would know if a solution was saturated. She wondered if and how her students understood saturation. She asked, “How can I honor both the state science standards and my students’ thinking?” Next the mentor teacher and teacher educator responded by posing questions to understand why the pre-service teacher felt the issue was important and to learn more about what the student teacher saw as the strengths and weaknesses in the student explanations. The mentor teacher, drawing on her knowledge of her students, noted that one of the students exceeds standards in all subject areas and had written the longest and most detailed student explanation. The teacher educator asked which student explanations were most representative of the work written by the class and shared aloud the questions the student explanations raised for her. The mentor finally suggested that it would be helpful to set out the experimental set-up during the partnership meeting so that meeting participants could visualize the saturation experiment.

The final part of the meeting turned to mutual dialogue about the student evidence. Discussing the presented evidence together, the elementary teacher, pre-service teacher and university teacher educator discovered many nuances in student responses, and in the end the pre-service teacher decided to share two different problematic examples—rather than one ideal student response and one very limited response. Comparing representative examples allowed the planning team, and later the participants in the meeting, to consider different ways of student thinking—not just correct and incorrect responses—and also to re-examine why the assignment prompt itself might have been confusing for students. These choices and discussion at the planning stage supported active discussion and in-depth examination in the subsequent meeting.
Discussion of Classroom-Based Questions and Evidence

We have found that the quality of the meetings matters more than the number of meetings. Given the many demands on teachers’ time we meet between two and six times per year, and we limit the meeting length to between 60 and 90 minutes. Meetings typically involve 15-20 individuals with a roughly equal balance of pre-service teachers, mentor teachers, and university faculty. Our meetings follow a five part agenda: (1) welcome and introductions, (2) presentation of a teaching dilemma and evidence, (3) small group discussion, (4) whole group discussion, and (5) feedback and reflection. Meeting discussions are focused on a central question posed by an educator in relation to evidence of student learning, and meetings typically take place in the home classroom of the presenting teacher. As indicated in the planning stage, presenting teachers are encouraged to share a “provocative pairing” of evidence—for example, two samples of student work from the same learning task that differ in a way that raises questions. Significantly, focused student evidence creates a “third point” (Lipton & Wellman, 2003, pp. 30-31) in teacher discussions— that is, a reference point which mediates substantive communication while reducing the threat of judgment around the specific events or the teacher in a classroom. In other words, starting with student evidence allows participants to come to the dialogue from a place of curiosity rather than vulnerability.

To illustrate a typical meeting, we describe the question and evidence shared by a pre-service teacher, who was in her twelfth week of student teaching at a partnership elementary school. She began the dialogue by describing the end-of-unit assessment task in a third grade math unit, entitled “Fair Shares,” in the district-adopted curriculum (Investigations in Number, Data, and Space). Figure 1 shows the provocative pairing of evidence presented by the pre-service teacher.

The student teacher presented her dilemma by explaining that during this math unit her students had spent many weeks examining relationships between halves, fourths, eighths, and sixteenths, as well as thirds and sixths. However, her class had not studied fifths, and during the end-of-unit assessment a number of students said in frustration, “but there is no such thing as fifths!” She said she was puzzled by the written responses presented. Before the small group discussions began, she said that the only question she wanted to pose was: “What were they thinking?”

Small groups with three to five members (including at least one student teacher, one mentor teacher, and one university teacher educator) discussed the question and evidence for fifteen minutes before the whole group came back together to share insights and questions. The large group discussion began with participants identifying patterns in the student responses, for example, both students used visual diagrams and written statements to explain their thinking and both students began the partitioning process with fraction values they had previously studied (thirds and fourths). These initial comments led to a further questioning about the curriculum materials and student thinking: What are the pros and cons of assessment tasks that involve fractional units that students have not yet studied? Is partitioning easier when fraction values result in an equal number of parts? At the end of the discussion the student teacher commented that the conversation had helped her re-frame her dilemma. She noted that she had been focused on the fact that the students had not used fifths when problem solving; she had focused on what her students had not done, rather than on the understandings they demonstrated. As she said, “I was so caught up by the fact that they didn’t use fifths I missed how much mathematical thinking they were using.” Although this is a brief description, the example illustrates how teachers’ own...
Imagine that you have 7 brownies to share equally among 5 people. How many brownies will each person get? Explain how you got your answer.

One person’s share is 1/1, 1/3, and 1/9
Each person gets 1 whole brownie, 1/3 of a brownie, and 1/9 of a brownie which is this.

One person’s share is 1,¼, 1/8, a forth of a forth
I made 7 brownies and gave 1 to each person then divided like the picture.

**Figure 1.** Evidence provided by pre-service teacher

Practice can become a centerpiece of professional development (Lieberman & Pointer Mace 2010), and how authentic questions and evidence help educators develop insights into the relationship between their own assumptions, curriculum materials, and student understanding.

**Reflection on Meeting Discussion**

At the end of each meeting participants write a reflection on index cards by responding to the writing prompt, “What do you take away from today’s partnership meeting?” Writing reflections supports participants to link experience and thinking by describing their understandings, sharing reactions, and connecting their learning to past and/or future experiences (Moon, 1999). These responses are typed up, organized into a table by stakeholder group (pre-service teacher, mentor teacher, university teacher educator), and circulated to all participants to make patterns in perspective visible. This reflection process allows each participant to consider the implications for her or his teaching – as well as one’s own sense of self as a learner in community.

As seen in the example reflections, the educators involved emphasize that teaching involves considering numerous dilemmas, that the meeting context supports an open exploration of questions, and most importantly that teacher learning occurs in professional dialogue with others.
Table 2

**Participant Reflections**

<table>
<thead>
<tr>
<th>Reflection by Role Perspective</th>
<th>Common Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Service Teacher Reflections</strong></td>
<td>--collegial identity</td>
</tr>
<tr>
<td>For me, being in a partnership with people who I usually only get to relate to in a professor-student or experienced teacher-novice way, this time in more of a peer way, has been very positive. I love getting to hear the many different perspectives on the same issues.</td>
<td>--value of different perspectives</td>
</tr>
<tr>
<td>It was nice to see in the discussion that people who have been doing this forever still don’t have all the answers. Even though we are teachers we will always be learners. It was also nice to be in a place with superiors in more of a peer way.</td>
<td>--sense of self as learner</td>
</tr>
<tr>
<td><strong>Mentor Teacher Reflections</strong></td>
<td>--concern for depth in discussion</td>
</tr>
<tr>
<td>It feels good to have time to discuss meaningfully the deep issues about math materials. MAT students need to see that we too struggle to make sense out of what and how we’re teaching kids. It was important to hear that you are always growing and learning no matter how long you’ve been teaching.</td>
<td>--desire to discuss common experiences</td>
</tr>
<tr>
<td>I appreciated the specific structure of today’s meeting. We were able to dive deeper into a specific issue and student work. These studies are valuable because they allow us to focus on, learn from, and discuss common experiences. I look forward to all the perspectives we bring and how much I learn as a result.</td>
<td>--value of different perspectives</td>
</tr>
<tr>
<td><strong>University Teacher Educator Reflections</strong></td>
<td>--sense of self as learner</td>
</tr>
<tr>
<td>As educators we can never know it all. I’ve appreciated the opportunity to suspend the “need to know” for the opportunity to consider and explore perspectives from the various roles.</td>
<td>-value of different perspectives</td>
</tr>
<tr>
<td>If we can’t have it all, what is it that we really want from math instruction? Experienced teachers have deep curriculum knowledge and scripts to pull from as they consider curriculum—noticing error patterns helped us raise questions about the curriculum and student thinking. This meeting reinforced for me that teaching is an active, ongoing, intellectual process.</td>
<td>--sense of self as learner</td>
</tr>
</tbody>
</table>

**Conclusion**

We have heard again and again that conversations like these are not usual in the life of an educator and that teachers deeply desire supportive contexts to explore the day-to-day complexities of their own teaching. Systematically supporting multi-vocal teacher communication fosters shared inquiry and validates that many perspectives are needed to re-think teaching practices. Although developed within a specific partnership, we have found that the protocols we have created for supporting teacher communication and learning are adaptable to a number of contexts – wherever teachers are looking to study classroom interactions, teaching practice, and student learning. We have used these meeting protocols with good effect in a variety of settings with a wide range of participants beyond our partnership, including our
information/student recruitment session, mentor teacher orientations, and even our reaccreditation team meetings with state officials. What matters is mutual investment and evidence-based dialogue. Our belief is that effective teaching develops when teachers collaborate with others, make their teaching dilemmas visible for professional discussion, and pose questions from their practice in relation to selective, detailed, classroom-based evidence.

Our work is also a powerful reminder of the importance of professional identity development within a learning community. Learning to teach is centrally about identity development (Alsup, 2006; Costello, 2005), not merely about instructional tools, knowledge, skill sets, behaviors, or even dispositions. Our work aims to address how teachers see themselves as professionals – i.e. whether or not they have a “voice” in their professional community, whether they are authorized to experiment and question, whether they feel they have to choose sides between theory and practice. From this perspective, our partnership meetings aim to provide an important space for teachers (pre-service and otherwise) to try on identity positions and to rehearse such roles by talking about teaching and learning in the company of colleagues with differing kinds and levels of experience. Rich communication in this context allows teachers to take on or appropriate various forms of talk and action that may shape how they envision their role and voice in schools.

McLaughlin and Talbert (2006) further argue that school-based learning communities (e.g., grade level teams, the school faculty) are ideally suited to address questions that lie between macro level policy demands and the micro interactions of particular classrooms. In strong professional learning communities, teachers constantly consider and negotiate mandates in relation to what they know about their students and school community. Our intentional partnership model aims to build such habits of strong professional community by focusing on quality meeting interaction. We aim to expand conversations around curricular decision making, bringing together crucial professional voices (experienced teachers, beginning teachers, teacher educators, administrators) around questions of practice. During partnership meetings, this often takes the form of teachers asking critical questions about the adopted curriculum, identifying and reframing assumptions, or wondering about the broader purpose of teaching a particular subject.

The teachers we know and learn with strongly desire meaningful discussions about their teaching. They acknowledge that they have plenty to learn as well as knowledge and insight to offer. Yet, productive teacher conversations remain rare, because, as in actual classrooms, multiple variables are involved. Teachers may not relate to a given issue, may not fully trust the context, questions asked can be too vague, information offered too overwhelming. Given these realities, we believe too little time is spent planning for and supporting the nuances of productive teacher talk – including a question grounded in practice, mutual investment, use of selected evidence, and two-way dialogue. We offer our partnership model as one example, and as a way to emphasize the importance of intentionally designed communication in support of teacher learning about practice.

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Ball, D. L. (1997). From the general to the particular: Knowing our own students as learners of mathematics. The Mathematics Teacher, 90 (9), 732-736.


