

Influence Skills in Instructional Coaching: Reflections for the September 2005 Instructional Coaching Conference

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Introduction.

For a period of time last year, I worked with a mathematics coach in a New York City middle school. Along with individual teacher planning sessions and classroom observations with feedback, we incorporated analyses of student work into engagements with groups of teachers. On a few occasions, we asked the teachers to collect student work on tasks we believed would demonstrate different ways of thinking by the students. We acted on a couple of premises: i) that students are constantly making their own meaning of mathematics concepts and skills, which may or may not match the instructor's intended meaning; ii) that, therefore, understanding how and what students think is fundamental to good teaching.

However, evidence of variety in student thinking about mathematics problems was not always greeted with the enthusiasm felt by the coach and me. For example, one task on subtracting mixed fractions generated an especially varied set of student responses. ("Suppose a piece of wood $6 \frac{7}{8}$ inches long is cut from a $36 \frac{1}{2}$ - inch board. How much of the board is left? Explain how you found your answer.") Students' attempts at explanation reflected many ways of thinking, some of them quite creative and powerful. However, some of the teachers found the variety vexing. Two teacher reactions I recall:

- "How am I supposed to manage many ways of thinking? One way is challenge enough!"
- "This just shows they haven't learned the method yet. I'll clear that up."

I find such responses noteworthy for two reasons. For one, they came across as honest statements reflecting the teachers' perspectives on teaching and learning. For another, they go to the heart of a central challenge of coaching: *How does a coach influence a*

teacher's practice, when there are beliefs, values, and assumptions underlying the teacher's practice that are very different from the coach's? This paper offers one way to think about the challenge.

Background.

‘Leadership refers to activities tied to the core work of the organization that are designed by organizational members to influence the motivation, knowledge, affect, and practices of other organizational members or that are understood by organizational members as intended to influence their motivation, knowledge, affect, and practices’ (Spillane, 2005, p. XX).

This working definition of leadership, emphasizing *influence*, which guides Spillane in his work, also guides much of the work of the Center for Leadership and Learning Communities (CLLC). Though relatively young as an administrative entity at Education Development Center (EDC), CLLC has experiential roots stretching back to our work in the 1980's with the Urban Mathematics Collaboratives (UMC) Project. Particularly significant in the UMC work was the decision in 1989 to support the sixteen collaboratives with formal leadership training for teacher leaders and district administrators. To help in the design, we engaged an expert from the world of executive coaching and consulting, Grady McGonagill. (See www.reflectivepractitioner.com for a description of his work.)

Together we designed a five-day leadership institute, which we launched in Summer 1989 and repeated in the next four summers. Eventually, the institute model was adapted by the National Council of Supervisors of Mathematics for their Leadership Academy and used during several consecutive summers. CLLC continues to apply and adapt the model in various leadership training endeavors. In this set of reflections, I will explore the application to supporting the work of instructional coaches.

Grady McGonagill injected into the design of the original leadership institute ideas that had influenced his own practice, ideas developed by Argyris and Schon and elaborated in the discipline they called Action Science. (See, e.g., Argyris & Schon, 1975; and also Argyris, 1982; Argyris, Putnam, & Smith, 1985; Schon, 1983; Schon, 1987.) Based on

considerable study of the work of consultants and executive coaches, Action Science analyzes effectiveness of action by individuals. “By ‘effectiveness’ we mean the degree to which people produce their intended consequences in ways that make it likely that they will continue to produce intended consequences.” (Argyris, 1982, p.83) Central to the theory are the ideas that acting effectively is a core human aspiration, and that people design their actions and are responsible for them. The work focuses quite a bit on questions of how and why individuals’ actions are so frequently incongruent with espoused intents, particularly when they are engaged with difficult issues. As a result, the theory attends to the differences that commonly occur between a person’s “espoused theories,” theories about effective action that we can explicitly state and espouse to follow, and “theories-in-use,” the “often tacit cognitive maps by which human beings design action” (Argyris, Putnam & Smith, p. 82), especially in situations where we could not possibly reason through all the data needed to design action strategies.

Any skill-focused approach to leadership training must address how to manage this common disconnection between espoused theories and theories-in-use. Key to our leadership training is Action Science's perspective on the role of communication in leadership. "Action Science encourages practitioners to make their intentions and hypotheses known and to test them openly with clients. It also recommends equal emphases on *inquiry* (listening, asking questions that increase clarity and understanding) and *advocacy* (offering assessments and interpretations, making suggestions, or asking questions that encourage the client to reflect in a particular way)." (McGonagill, p. 74)

Often, we argue for the need for this balance between advocacy and inquiry by presenting a table that represents blind spots that typically stand in the way of clear communication. We adapted the table from (Senge et al, 1994):

Blind Spots

| What I can see | What I cannot see |
|---|--|
| <ul style="list-style-type: none">• What I am up against• What I am trying to do• What you are doing• What effect you have on me | <ul style="list-style-type: none">• What you are up against• What I am actually doing• What you are trying to do• What effect I have on you |

The effective-communication component is one piece of our leadership work. Other components complement it, including one that emphasizes "Understanding and Managing Mindsets" and another that emphasizes "Understanding Individual Differences."

Together, the components aim toward one overarching goal: to build leaders' influence skills.

The Influence of Coaches

On another track of CLLC work over the past decade, we have designed and studied teacher professional development models, particularly those that involve use of mathematics classroom artifacts. (See, e.g., Driscoll et al, 2001; Goldsmith et al, 2005.) Several years ago, when we took our professional development work to mathematics coaches in several cities, we realized that the two tracks--leadership training/support and professional development design-- were converging. Indeed, our own thinking about improving teacher practice was converging toward the realization that: *If the essence of coaching is influence, then artifacts of coaching practice can be powerful influence tools.*

Different coaching programs define the goals of coaching in a variety of ways. For our work, we find the following goals for instructional coaching to reflect both our own values and those of most of the coaching programs with which we have been associated:

- Improve teacher content knowledge
- Actuate research-based instructional strategies in classrooms

- Build teachers' capacity to use a variety of assessments to monitor student understanding and achievement
- Help teachers take an inquiry approach to teaching, in particular, help them to understand, question and, where appropriate, shift their attitudes and beliefs.

The rationale for the last goal requires some elaboration, because it points to a subtle but pivotal distinction between different perspectives on a coach's role and on sets of coaching strategies. Does a coach merely set out to minimize the gap between a teacher's intentions and actions, or does the coach aim to go deeper and help the teacher examine underlying assumptions, beliefs, and mindsets about teaching, learning, students? If asked, many coaching program heads would likely espouse the latter as a desirable coaching aim. And yet the latter is more difficult, not only because it requires skill in surfacing teachers' assumptions, beliefs, and mindsets, but also because it requires that the coach be self-aware, as well. Though referring to executive coaching, McGonagill identifies a key point that also is germane to instructional coaching:

A model of coaching will inevitably entail assumptions about why people behave as they do. The task coaches face is to become conscious of those assumptions and assess their strengths and limits. Are they robust enough to survive an encounter with the wide range of situations presented by different clients facing different organizational and personal challenges? (McGonagill, p. 65)

In our employment of artifacts in teacher professional development--such as written student work, transcripts of student problem solving, and classroom video--discussions readily elicit teacher assumptions and beliefs about the learning and teaching of mathematics. For example, do teachers concentrate only on deficits in a student's work, or do they try also to identify evidence of thinking potential? Are they able to suspend "one way to solve it" beliefs about mathematics problems, to try to figure out a student's very offbeat approach? Just as readily, artifacts require coaches to be aware of, and to be willing to test, their own assumptions and beliefs. A couple of years ago, I asked a group of math coaches in New York City: "Suppose a teacher brought a piece of student work to you and you had a very different interpretation of the student's thinking than the teacher did. What would you do?" The range of responses impressed me. One said that

he would likely defer to the teacher (because the teacher knows the child). Several more said they would use the opportunity to provide the teacher with an alternative viewpoint. Still others said they would seize the opportunity to take a stance of inquiry toward the student work, and test out both interpretations with another math task. I realized that, even in this hypothetical example, artifacts were showing their power to elicit a range of beliefs about what coaching is all about. Furthermore, because both inquiry and advocacy were in the air in the coaches' responses, I was reminded of the power of the Action Science framework that we had incorporated into our leadership training.

Because of artifacts' power as resources for influence in the coach-teacher relationship, we have embraced the use of them in supporting coaches. The logic behind our advocacy of artifacts runs like this:

1. Improvements in student learning depend on particular changes in teacher behavior.
2. Coaching influences teacher behavior indirectly, through its impacts on teacher knowledge, skills, attitudes, and beliefs.
3. The strategic use of artifacts from coaching practice can increase coaches' influence and help them to enhance teacher knowledge and skills and to shift teacher attitudes and beliefs.

Of course, as demonstrated by my experience in the New York City middle school, which I described at the beginning of this paper, there are no short and foolproof pathways toward enacting this logic. Even in that kind of situation, however, the evidence of variety in student thinking opened doors of communication for the coach and teachers. She turned the teachers' negative reactions into several lines of inquiry. To what extent is the variety a bad thing or a good thing? What kinds of assessment tasks can reliably show whether they have indeed 'learned' what has been taught? How can students be empowered to rely on their own resources when they forget methods they've been taught-e.g., during a test?

There is no denying that the coach-teacher relationship is artifact-rich. Not only are there the student work and other classroom artifacts we use in professional development; there also are teacher *lesson plans*, the *mathematics tasks* used by the teacher, and *classroom observation records*. With so many potential influence tools, a coach could easily run adrift without the right kinds of navigation aids. Though I won't go into detail here, we have found it advantageous to make available to coaches several frameworks to guide their use of artifacts. For example, with classroom artifacts we employ guidelines from EDC's Turning to the Evidence Project, which help keep the focus of artifact analysis on *mathematics content* and *thinking* that underly the work reflected in the artifacts. (Goldsmith et al, 2005) For times when the mathematics task chosen by the teacher is the focus artifact, we appeal to the framework that emerged from the QUASAR Project, which helps in delineating a task's cognitive demand, and the factors that can dilute cognitive demand for students. (Stein & Smith, 1998)

Example.

Artifacts make their way into coaches' hands in a couple of ways. Usually they arise naturally from teachers' day-to-day instruction. So, for example, a teacher may bring student work samples to a coaching session, in the hopes that the coach can help in interpreting what the students were thinking and what to do next. On occasion, the coach may intervene in the natural flow of a teacher's practice and deliberately seek artifacts, as when coach and teacher are exploring the notion of cognitive demand in mathematics tasks. The coach may suggest a particular task as a generator of student work, so they can have concrete evidence to help in understanding cognitive demand.

Two years ago, I was facilitating a group of New York City math coaches with Charlene Marchese, a lead coach in the city's Region 9. A coach brought to the group three pieces of student work that a 6th-grade teacher had shown him. The teacher was looking for some guidance on how to follow up on some confusing and disappointing student performance on what seemed a rather straightforward math task: "Cynthia is 5 years older

than her sister Sylvia. The sum of their ages is 13. How old is each girl?" Here are the three pieces:

Student A

2/14/04
Class 604

Problem: 2 #'s sum is 13, di

+
13

Cynthia ~~8~~ 9 Not sure
Sylvia ~~5~~ 4

13
12
11
10
9
8
7
6
5
4
3
2
1

Student B

604 math

2 #'s, sum 13, dif. 5.

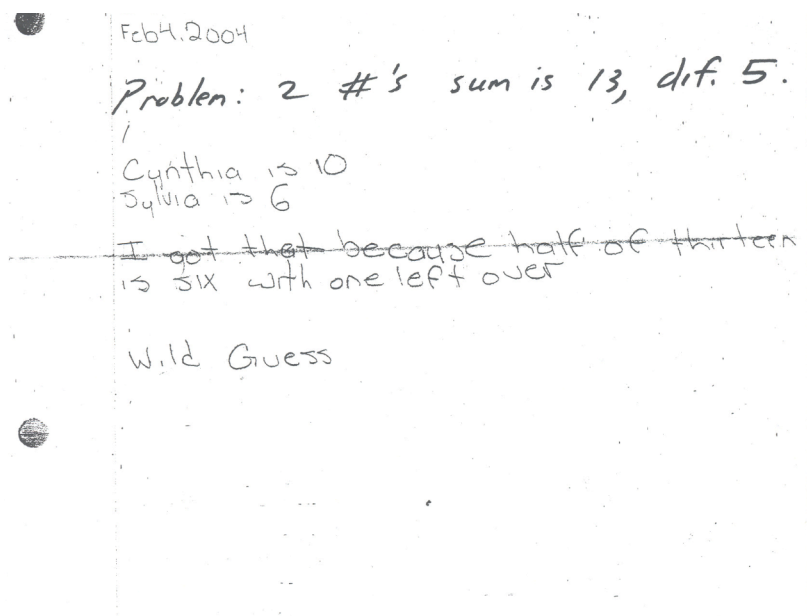
Cynthia is 5 year
Older than her sister
Sylvia. The sum of
their ages is 13. How
old is each girl.

13
+ 5
18
- 5
13

Cynthia 18
Sylvia 13

18
+ 5
23
- 5
18

Student C



At that session, limited time permitted only a narrow engagement with the samples, mainly focused on the question: "How would you describe the different mathematical thinking in the three pieces?" Later in the year, however, Charlene and I employed the same samples of student work in a summer institute for New York City math coaches, and used a broader lens. We asked the coaches to simulate a meeting with the teacher who brought this student work, recognizing that any such interaction must begin with the coach's own reaction to and interpretation of the evidence. The reactions around the room varied considerably. The perspectives behind the reactions appeared to be distinguished one from another by three tacit considerations:

- *Looking across this set, does it represent mostly an instructional headache or an instructional opportunity?* ("Wow, they can't do that problem in 6th grade??? That's a real problem" and "I think it is neat that the students are allowed to express their own thinking, and not expected to do it a single way" are reactions we heard, which reflect two very different positions.)
- *Is there mathematical sense-making here, or mainly mathematical nonsense?* (While most coaches gave little thought to Student C, several others ascribed

sense-making to the child's work, despite the "wild guess" comment, and even talked about it as evidence of misapplied algebraic thinking about simultaneous equations.)

- *What exactly do these students appear to know, and what do they appear not to know? Or, in other words, is there potential here, or only deficit?* (Several coaches took pains to construct a narrative that appeared to explain Student A's use of the box, circle and line segment in the column of numbers 1 to 13, and offered thoughts about how that algorithm used by the student might generalize.)

The various perspectives behind answering these questions reflect different beliefs and assumptions. It is important to note that the point here is not to say that one response side to each question is right and the other wrong. Rather, I want to convey the perspective that a coach who sees mainly headache, nonsense, or deficit in this set may be acting according to very different assumptions about what is important in mathematics teaching and learning than a coach who sits on the opposite side of the balance. This, in turn, will influence a coach's assumptions about what the teacher did, didn't, and should do. We believe that coaches are empowered by awareness of these assumptions. Recall Grady McGonagill's statement: "A model of coaching will inevitably entail assumptions about why people behave as they do. The task coaches face is to become conscious of those assumptions and assess their strengths and limits." (p.65) This self-assessment opens the door to greater influence.

Conclusion.

We in CLLC embrace instructional coaching as a change strategy for several reasons. As "a natural outgrowth of the lessons cognitive psychology has taught us about what it means to learn and to know something" (Neufeld & Roper, p.2), coaching evidently has the potential to penetrate deeply into teaching and learning needs in this country. Coaching also fits comfortably with our influence-based perspective on leadership, as well as with our research and development focused on the use of artifacts to influence teacher learning and change.

Particularly in large systems, teacher leaders often are isolated from support and feel overloaded with a wide array of responsibilities, as demonstrated by our own research (Teacher Leadership for Systemic Reform Project, NSF # 9970830). This fact raises a warning flag about the embrace of coaching without strategic planning. Instructional coaches often are chosen because of their teaching experience and content knowledge. And yet, even with a very focused goal--e.g., effective implementation of a new mathematics curriculum--coaches will face challenges for which their experience and content knowledge are of limited use. For instance, they may be in some classrooms where special-education needs are pronounced, in others where English Language Learner (ELL) factors bear strongly on student learning opportunities. A strategically planned coaching program will help coaches secure the appropriate resources for responding to the diversity of needs they face. This need not be onerous nor expensive support. Often, it can be accomplished by helping the coach assume a distributed-leadership perspective (Spillane, 2005), locating the most helpful resources for a particular need, within the coach's school and/or within the coach's district. In the New York middle school, for example, the math coach was astute in determining which mathematics teachers had effective strategies for dealing with English as a second language and made sure to create opportunities for those teachers to share with the other mathematics teachers.

Based on all of our experience in CLLC, we believe that effective coaching skills can be taught, in particular, to increase coaches' influence skills. One approach is to adapt our CLLC leadership training model to serve districts that have adopted instructional coaching as a change strategy. This coach-training model will have three main components:

1. Core Influence Skills components -- communicating effectively; understanding and managing mindsets; understanding individual differences
2. Skills in using coaching artifacts to enhance coach influence and effectiveness

3. Networking skills and strategies that help coaches identify resources to bolster their effectiveness--e.g., in areas such as Special Education and ELL needs.

After coaches engage in this core experience (likely, four or five days), it seems desirable to fashion a fourth component--an online environment that would help the various coaches continue to network and to hone their coaching skills. The particular focus in our model on using artifacts promises to give such an online environment considerable life and relevance. We look forward to making it happen.

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