Standards-Based Reform in the Jefferson County Public Schools

Update Report

August 30, 1999

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In February 1998, JCPS began a three-year effort to roll out performance standards, performance tasks and alternative approaches to assessment in the context of its emphasis on literacy and mathematics learning. As a result, and with the agreement of the district, Education Matters focused it's evaluation work on these aspects of standards-based reform during the 1998-1999 school year. In the fall of 1998, we interviewed teachers and asked them to explain their understanding of performance standards. We observed their teaching and inquired about how the standards were influencing what they taught, how they taught it and how they assessed student learning. In the spring of 1999, we returned to these themes and asked teachers to share with us samples of assignments and student work that had been influenced by the standards. During the school year, we also spoke with central office administrators, Clark Fellows and School Support Resource Teachers about their work in schools and classrooms.

Our fall data collection revealed that teachers were aware of the performance standards but were not yet sure of how they were to be used. They reported that they would work on developing their understanding and use of them during the schoolyear. By the spring, in our view, not much had changed with respect to teachers' understanding and use of these standards. Standards were posted in classrooms and some teachers attached student work to them. However, the performance standards were not often connected to ideas about the quality of or kind of work that met the standard. Central office administrators and Clark Fellows with whom we spoke were frustrated by what they saw as too little movement with standards-based implementation. They agreed that teachers and principals and even some central office administrators did not have a clear grasp of the performance standards and how they linked to other aspects of the reform.

In reflecting about the state of standards-based reform with administrators, School Support Resource Teachers, and Clark Fellows, we have come to the conclusion that teachers, principals and others in Louisville have not really had an opportunity to understand or to learn to use standards in the ways envisioned by the reformers. This is because the central premises of the reform have been poorly articulated and the components of the reform have been provided to administrators and teachers in a fragmented fashion with insufficient attention to the links between them and their implications for curriculum and instruction. At this point in our analysis of the situation in Louisville, we believe that if standards-based reform is to achieve its promise, it must be articulated more fully so that it has a fair chance to be understood and implemented. The roll out of performance standards has heightened awareness that there are problems with the current strategies. We do not think they are fatal; we do think they merit concerted attention.

Why have these problems occurred? Standards-based reform rests on the implementation of three kinds of standards:

1. **Content or academic standards** that describe the knowledge and skills expected of students at certain stages in their education. The emphasis is apt to be on learning content more through critical-thinking and problem-solving strategies than through rote learning of discrete facts.

2. **Performance standards** that describe how well students should be able to demonstrate their knowledge. They answer the question: How good is good enough? Usually they take the form of a number indicating a level of proficiency, for example: 1=Novice, 2=Apprentice, 3=Proficient, and 4= Distinguished.

3. **Opportunity to learn standards** that describe what students need in order to have a fair chance to meet the content and performance standards. These include access to knowledgeable teachers, materials, resources and time.[1]

Performance standards are supposed to identify how and how well students must demonstrate their knowledge. They should be linked to content standards and provide teachers with exemplars of a wide range of student work that meets the standards at different levels of proficiency. They should also be attached to a range of assessment strategies designed to determine the extent to which students have met the standards. If one thinks about implementing standards-based reform in theory, it makes sense to provide teachers with content and performance standards, as well as performance tasks, at relatively the same time. By doing this, in the context of appropriate professional development, teachers could implement the reform in a coherent fashion.[2] However, in Louisville, teachers got the content standards early in the winter of 1996.[3] They were accompanied by the promise of performance standards, but those were not available until the spring of 1998. During this interval of more than two years, teachers were asked to use the content standards. But, how were they to use them given that there was no

[1]These definitions can be found in Mitchell, R. (1996). *Front-end alignment: Using standards to steer educational change.* Washington, D.C.: The Education Trust, in the National Education Goals Panel's *Promises to keep Creating high standards for American Students.* Washington, DC: NEGP, (1993), and in Lewis, A. C. (1995). An overview of the standards movement. *Phi Delta Kappan.* 76(10), 744-750. In conducting our evaluation of standards-based, middle school reform in Louisville, these are the definitions that we have kept in mind. They match nicely, we believe, with those articulated by the district, most recently in March 1998 by Jacque Austin, Director, Curriculum and Assessment in *Performance Standards: A Basic Overview* in "Regionally Speaking," a quarterly newsletter for the Regional Service Centers.

[2]In *Performance Standards: Tool Kit, January 1998* by Jacqueline Austin, director, Curriculum and Assessment, there is the following description of performance tasks: "Performance tasks require students to do something and/or produce something – they are designed to execute a process and to create a product. The work of students can be assessed only when you give them a task. The degree of achievement can be assessed only when students perform the given task."

[3]The date on the standards documents prepared for parents and teachers is 1/96.

district guidance on how they would be linked to agreed-upon performance standards, alternative assessment strategies or performance tasks?[4]

In light of the state's high stakes assessment and with guidance from the Distinguished Educators (DE's) and others, teachers worked hard to align their curriculum to the content standards. They worked to create, in a sense, a scope and sequence from the content specified for grades six through eight. We do not think this was wasted effort, since the focus on alignment helped teachers identify topics that were taught repeatedly and those that were left out, for example. It helped them develop a rational approach to addressing content over the three years of middle school. What it did not do was help teachers increase the standards to which they held all students accountable or diversify the kinds of assessments they used to determine students' performance levels.[5] Teachers, we are told, still individually determine the standards of quality that students must meet, although some departments and teams are discussing the possibility of having common standards. Performance standards, as rolled out by the district, did not provide them with sufficient access to alternative teaching strategies that would help students complete more complex assessment tasks.

We know that the district has done a great deal to provide teachers and principals with professional development designed to enable them to implement standards and that this has been an improvement over what the district offered in the past. The strategy of putting more professional development capacity in the schools in the form of the School Support Resource Teachers, the Clark Fellows and the Cadre Teachers, for example, is a good one. The effort to provide principals with professional development focused on literacy strategies and to insist that they take responsibility for and participate in school professional development days has helped schools become focused on teaching and learning. What is clear, however, is that implementing standards-based reform requires more and more highly skilled support at the school level than the district had anticipated. When one couples the weak articulation and somewhat fragmented roll out of the reform's components with professional development that was improved but still insufficient, it is not surprising that the district finds itself frustrated by the lack of significant, district wide progress with respect to standards.

Our data collection reveals that teachers, for the most part, are unsure about what the performance standards add to the reform. They lack knowledge about how the performance standards are linked to content standards, to performance tasks, and to assessment strategies. As a result, although they are willing, they are in a weak position to make good use of these components of standards-based reform. We think this situation exists because the strategies used by the district fifteen months ago, accompanied by initial professional development, did not

[4]The only genuine performance standards and tasks available to teachers are those associated with the state assessment. Teachers continue to use those standards to guide students in producing writing portfolio entries. They use released open-response items as one kind of performance task.

[5]We know that, during this time, teachers learned about rubrics and began to use them to assist students and themselves in identifying what was required in a high quality piece of work. Some of the rubrics were complex and identified variations in quality; some were statements of the points attached to completion of different parts of an assignment. The use of rubrics had some benefits, but, absent performance standards, it did not serve to forward the implementation of standards-based reform.

provide sufficient guidance to those who were asked to use the standards. Too few explicit links were made to the content standards, and little attention was paid to the quality of work required to meet a standard at the proficient level. As a result, our observations and interviews throughout the 1998-1999 school year suggest that, despite their hard work, most teachers have made little progress implementing performance standards in the meaningful ways envisioned by the district.

We want to stress, however, that there is a great deal of important work going on at the schools that will likely lead to improved student achievement. Teachers are working hard to align curriculum and design lessons that will raise student achievement. There are more substantial department and team conversations about curriculum, teaching and learning. In some schools, teachers are talking about student work and how to improve that work by providing better instruction. Teachers are focused on literacy and there are clear emphases on teaching writing and reading across content areas. Performance standards are posted on classroom walls and in the corridors alongside student work. They do serve to make explicit the content that students are expected to learn. Teachers are attentive to the fact that their job is to help all children achieve and, at the very least, move out of the Novice category on the state assessment.

In this report, we want to highlight teachers' understanding of performance standards to make the point that the district ought not move forward with performance tasks without 1) clarifying the links between the components of the reform and 2) agreeing on common standards of proficient work across grade levels and content areas. We include the views of administrators and school-based professional development support personnel in discussing these issues. Then, we want to describe the ways in which teachers and schools have begun to use the process of looking at student work (LASW) to inform their knowledge of students' learning and the impact of their teaching strategies. Much of this work still focuses on what is required by open-response items on the state assessment. But some of it is beginning to address ongoing curriculum and instruction. We think this work is a step in the direction of enabling teachers to improve their teaching. Many teachers report that they are not yet satisfied with their impact on students. They continue to cite student motivation and prior academic preparation as a significant deterrent to high level work. These are real problem areas with which teachers are trying to cope.

Our findings suggest considerable variation by school in what teachers and principals are doing to create a learning community for teachers and students even when schools have the same external support resources available to them. In some of our sample schools, we see strong teams and/or departments that are focused on teaching and learning. In one school, we see strong principal leadership that is sharply and consistently focused on schoolwide student achievement. In another, we see more superficial attention to achievement that seems not yet to have changed the culture and teaching norms of the school. Each of the four schools has a few teachers who understand the reforms and their implications for instruction. None of the schools, as yet, has created a learning based culture in which standards inform teaching and learning and where all resources are directed to the improvement of achievement. Yet, we think the schools are moving in this direction. We intend this report to provide an overview of progress and food for thought about what needs to happen next to achieve the district and the schools' goals.

In this report, we also provide an overview of instructional strategies that teachers use in their classrooms. We describe two classes in which teachers are enabling students to become active participants in their education, two classes in which teachers are doing too much of the work in response to students' apparent lack of motivation, and one class in which weak teacher knowledge and skill seems to be standing in the way of effective teaching. We provide these descriptions to identify the issues with which teachers are struggling and the ways in which they are trying to address them. We provide them, also, because it is changes in teaching that will, ultimately, lead to improved student achievement. Finally, we present them because we want to note that little has changed in classroom practice during the time that we have been conducting our evaluation in Louisville. The teachers who are enabling students to participate in meaningful ways in their own learning were doing so at the start of Education Matters' evaluation of standards-based reform. Those who tend to dominate class time with teacher talk, likewise, were doing so at the start of the study. And, those whose content knowledge was weak, do not seem to have improved. Curriculum alignment has improved and the focus on literacy is likely to be of benefit, but we want to emphasize that these need to be accompanied by changes in teaching strategies and the implementation of high standards if students are going to achieve at high levels. In our judgment, teachers are working very hard, but many need help in coming up with new strategies that may be more efficacious than the ones they currently use.

In writing this report, we have chosen not to identify the schools by name. We have several reasons for this. First, we have promised confidentiality to the teachers in our sample and, by naming the schools, this promise may be compromised. Second, we have seen the same problems and solutions across all four schools. Therefore, it seems unnecessary to identify the schools. Finally, in describing principal leadership that seems to make a difference to implementing standards-based reform, we do not want to create competition or comparisons among principals. We want readers to focus on the work the principals are doing and how that work does and does not forward the reform agenda; we do not want to place attention on who they are. To this end, we use pseudonyms for teachers and principals and the pronoun "she" to refer to all individuals. We refer to all Clark Fellows, School Support Resource Teachers and central office administrators directly involved with improving teaching as "school support personnel."

Performance Standards: What Are They and How Are They Being Used?

In our August 1998 update report we described Louisville's plans for the three year roll-out of performance standards. We noted that the district felt that the strategy had to result in a) teachers and principals who understood performance standards and their links to content standards and performance tasks, b) the involvement of all teachers, and c) principals with enhanced roles as instructional leaders. We described the initial professional development provided to principals, to leadership teams at each school, and to all teachers during the end of the year professional development days. The hope was that during the 1998-1999 school year, teachers and principals:

> ...will do some school level benchmarking asking [for example] what does good work look like based on these standards? And then the following year, [we will] take some of those sample performance tasks and the rubrics that go along with them that teachers have developed, select some of the really strong ones so we

> have them for grade level, and do a district wide assessment. And we probably could only score a sample of those. But what that would tell us is, you know, as the district is moving toward standards at each grade level, where do the problems seem to be, what kind of professional development do we need to help teachers. (Walker, 11/97, identified in the 8/98 report)

Our school-based data suggest that very little benchmarking work has occurred. Moreover, at the end of the first year of implementation, middle school teachers in Louisville, for the most part, do not yet know that performance standards need to be attached to agreed upon benchmarks of quality, to agreement about how good is good enough for all students. Most teachers in our sample think that performance standards are another version of the content standards, a restatement of what students should know and be able to do, and further clarity about what they are to "cover." We provide a large sample of their responses to the question "What are performance standards and what are they for?" to demonstrate the widespread conception of this component of standards-based reform.

> They should be used to just guide your teaching, just make sure that you cover all those subjects in that particular year, so that the students can learn on grade level and progress on grade level. So, by the time they get to high school, they have the appropriate background. I don't think specifically about them. I just know I have to teach this, this, this and this, and I find them in the book and go through those particular topics. I just know the topics I have to teach. (Teacher E)

> In my words, they're things that the kids are expected to be able to do by the completion of their years in middle school or grade. That's what they are. They should be used as a guide for teachers. I think they need to make sure they cover everything that the child needs to know. (Teacher A)

> It's for the kids to be able to demonstrate what they know. With the content standards, it's the facts that they know. And with the performance standards, [it's] actually being able to do something. (Teacher G)

> Performance standards are things that the kids need to be able to do, whether it be to find patterns. Whether it be to measure some things, whatever the kids need to be able to do. (Teacher H)

> I don't know [the value of the performance standards] other than something to go by and types of things to do. I guess, from what the state tells us, it's some goal to reach. (Teacher J)

> Performance standards, to me, are guidelines of what a child should be able to do with the information that they're exposed to. And I say guidelines because it's going to vary from person to person. (Teacher K)

> To give you a goal or a focus. And also some unity, so that you know that all social studies are doing this, even if you go to another school, they still have to

meet the same things. I think that's important, that if I'm doing this stuff and also somebody else, at Southern or wherever, is also in maybe not the same tasks but getting the same information across. (Teacher L)

I think what the standards are are a guide for us, so that we don't just get bogged down into one area, teaching it, that we know that this has all got to be learned. By the end of 8th grade they should have a working knowledge of all those standards. I see them as a guide. (Teacher N)

To me, it's kind of like a guidelines of what you should be teaching. It's an incentive that you need to cover all of the standards. I felt good about checking that off. (Teacher O)

We've got a little book, plus we've got another little piece of paper that tells you that these are the standards that need to be covered, make sure you cover them. And you go through and you cover them. (Teacher D)

My use of those standards is it helps me to guide my curriculum, helps me decide what to teach. (Teacher Q)

These descriptions reflect teachers' understanding of performance standards and how they are to be used as of May 1999. They are noticeably absent any mention of the quality of work that must be produced to meet the standard or that the quality might need to be the same from teacher to teacher and school to school. Three teachers in our sample of thirty five, while discussing performance standards as guidelines, did link them to the need for quality criteria.

Performance standards are for what the children should be able to do when they leave your classroom. The standards are nothing more than guidelines. ...I use them up in my room. I post the standard. I make reference to the standard, and they'll say, "Yes. We're working on a personal narrative. These are the characteristics of a person narrative. It has to have this, this and this." **And posting student work, and letting the students see what a good quality piece of work is. The drawback to that is what I might consider a proficient myth, another language arts teacher might consider apprentice. You've got to have some criteria that are essentially the same. So you're consistent across the board.** (Teacher R)

What are performance standards? Those are what Jefferson County took, the outcomes that the state gave us, and said, "This is what a student will perform, this is what a student should be able to do at this grade level, this is what you should be teaching them to do at this grade level." **And a performance task should ask the student to show that they can meet those standards and how well they have to. Well, there isn't really a how well. I guess that's just up to individual. I don't think that we've been given anything that says, how well they have to do it.** (Teacher S)

> The student's ability to meet the criteria that is established for a particular assignment, and how well they accomplish that criteria that you set up for the beginning, and what is your end result in how they present it at the end. The only way you're going to really know what the student is doing is how well they can either perform it, write it out, explain it to you....**I think that we still need to do some work in our system about establishing very specific [quality] standards for each grade level.** (Teacher U)

A few teachers mentioned having exemplars of student work that guide them in explaining the quality they desire. These standards of quality, however, are unique to each teacher rather than school or district wide.

> I think students have a very, very strong sense of performance standards as far as what do we need here, what do we want here, because we're always going back to that [exemplar]. I don't start class without talking about where we're going with this [piece of work], this is what we're shooting for, and this is a quality piece. And every time we start a new piece they have sample after sample. And we pulled those out and we looked at them and we dissected them and we wrote notes on them. There wasn't any piece that they did that they didn't have at least three samples from a student. (Teacher C)

In contrast to teachers' understanding, Clark Fellows, School Support Resource Teachers and central office administrators with whom we spoke were quite clear that performance standards need to be connected with indicators of acceptable quality.

> I think performance standards identify for us, "What does it look like when students understand or demonstrate the content that I'm trying to teach?" **It identifies for me how, as a language arts teacher, I assess whether students can truly write a personal narrative or a piece of personal expressive writing at a proficient level.** (Central Office A)

> The performance standards are the evidence through student work of how kids are demonstrating their learning. And the standard means nothing without a task and student work to go with it. **It is only when we actually can sit down and compare quality issues that we are really getting into whether the kids have met the standard.** (Central Office B)

> The content standard tells us what we want students to know, to be able to do. I'm clear on that. My understanding of the difference between those and a performance standard is that the performance standard implies a benchmark. **The performance standard implies that we're going to come to some agreement on how well a student has to do things in order to meet the standard. ...But I'm not seeing that really playing out very well. Or at least I'm not even seeing any very deliberate thinking about that in the district.** (Central Office C)

> **Performance standards are the standards that are written to show how well or how good a child needs to be.** Like in reading, we want them to be proficient, at a proficient level in informational reading. **And so, we create performance tasks, which we haven't created yet, to say, "When a child is able to do this, they're proficient. They've met the standard."** It lets everybody in the classroom and everybody in the school and everybody in the district know, "This is what the kids need to know and what we're expecting them to know." It creates those same goals for everybody, for all students and for all teachers and for all schools. (Central Office D)
>
> I would say that the content standards are your basic overview of what you need to cover. And your performance standards break them down into steps, into skills that you need to make sure that you cover while you're covering your standards. So, they're more specific. I would say that the core contents were used to build and develop the performance standards. Our goal is to make sure that the skills are there, that they use the skills needed to build the understanding that we would like to see at the end, with the performance standard. I think that is where we are. **[How good is good enough] is where we're trying to get to.** (Central Office E)
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> The content is the information, the specific, factual information that needs to be learned. **When we move into the performance standards, we want to know how well the kids can do that and what they need to be able to do to demonstrate that knowledge.** (Central Office F)
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> **Performance standards are still developing, because we don't have the benchmarks. But the goal is to use them to determine how good is good enough** [so that] if they meet an acceptable standard, we say, "Yes, the students can apply what they've learned at an acceptable performance standard." (Central Office G)

It is good to know that those charged with helping teachers understand and use the standards have the knowledge necessary to the task. Our concern is that the professional development designed to help them work with teachers has not been sufficient. We return to this point later in this update report.

Given their understanding of performance standards, it is not surprising that teachers use them as they used the content standards, to further align curriculum. This use of them, sanctioned by the district as a way to help teachers figure out who would teach what, reinforces the idea that they are about content and not about the quality against which learning should be assessed.

> We've done a lot of work on performance standards over the past year. As a department we got together and we talked about the different grade levels, just to make sure that we're covering [the content], hopefully on all levels, but, at least certainly by the eighth grade, that everything is being covered. (Teacher A)

> We work on them in the department, and what we did was break them down at the beginning of the year. This year we broke them down and we wrote down what we were going to teach first, and how long we were going to be teaching it, trying to get them [the standards] in through the year. (Teacher B)
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> [The department] started the year by aligning our curriculum, making sure that we had a map and calendar of what we wanted to visit when. We made sure that our topics fairly blended together, especially language and social studies tend to be the two that we partner the most. (Teacher C)
>
> We did this whole mapping thing and we said, "Okay. This covers this standard. This covers this standard, and this is this standard. And make sure you get to all of these in particular this year." ... [Performance standards are] real objectives, real goals, real curriculum guides. This is what you're going to teach, and these are ways to go about it. (Teacher D)

As we wrote earlier, such alignment work can be beneficial; it can provide students with a more coherent curriculum that includes content for which they will be held accountable. What it does not do is address questions about the level of work students should be expected to produce.

A Word About Performance Tasks. When Louisville introduced the performance standards at the end of the 1997-1998 school year, it was with the understanding that schools would use them to finish curriculum alignment and then begin to develop performance tasks that would generate student work that could be assessed using school-based standards of quality. Cadre teachers had some professional development devoted to authentic assessment and the development of performance tasks and the hope was that they would help each school's leadership team spearhead work in this direction. Our data collection suggests that very little of this kind of activity is taking place in our sample schools and that, where it is, standards of quality are still determined by individual teachers and not schoolwide (with the exception of work produced for open response items). In one school, teachers have been asked to submit samples of performance tasks to be shared with the entire faculty. We found teachers working to develop these tasks at the time of our site visit but they had not become a focus of teachers' work in the other schools we visited.

What do teachers understand performance tasks to be? A few had unpleasant memories of the group-based performance tasks that accompanied the original KIRIS assessment. They suggested that the more recent use of the term meant something else, but they were not quite sure what. Some linked performance tasks to having students involved in real life applications of what they have learned. Others saw them as culminating projects.

> [For KIRIS] they had our 8th graders doing these performance tasks where they would be at tables, and there might be a map laying there, and a yardstick, and some other things, and they would give the kids a problem, and the four or five kids placed in that group at random had to solve the problem. How can this be any kind of valid testing? It's kind of a neat activity for teaching, but I'm not sure [about assessment]. So, that's what I started learning were performance tasks.

[Now] when I give them a topic to write about or they pick a topic to write about, is the paper itself the performance task for my subject area? What's a performance task for science? Would that be the ability to show that you can use the microscope? Would a performance task be to compare and contrast animal cells to plant cells? I'm not sure. And I quit putting my energies there because I thought, "I've got to focus on what I've got to do." (Teacher T)

If I do performance tasks, they usually work within a group. I haven't done much of it recently, where they would have a story and then they would have an envelope of different pieces. They would have just like pictures that they would have to fit together, and then in cooperative groups they would have to decide how this best should be put together to tell the story. It's a neat activity. To me, that's a performance task. (Teacher U)

It's not enough just to assess kids like we've been assessing them over the years, just a list of questions, because then they don't necessarily make the connections. Like, it stops in the math classroom. But if we have an actual performance task, then they're seeing, "I can do things with this," and they can see that the things that they do are relevant. (Teacher K)

I would say it's an open ended problem where students are allowed to develop their answer in a variety of different ways. In math it's not open ended in that there would be different answers. But, the way they go about getting their answers could be individual. (Teacher E)

To me, it's an assessment of what you've learned in some area. And it's any kind of task that you perform that shows that you've made a learning in a certain area. (Teacher W)

I'm not sure at this point. If you asked me right now, without having gone through any professional development on what we're going to be asked to do next year, I would have to say, and I could be very wrong about this, some type of what I would call project. It could be small. It would deal with what we've been talking about in class [and be] something that they could do, showing me what they learned. (Teacher H)

It should be a culmination where you have taught a major concept or a major law of motion, piece by piece by piece. And I still think that you [need to test] the kids in some way, either short, written responses or activities, and vocab, my kids need vocab. quizzes. And then, you're testing them on how they can put this together and really think about it in an analytic sense. What does it all mean? How does it fit together? How does it really relate to the world? (Teacher B)

It's something that they have to work on hands-on and come up with a finished product. That's what I call it. Of course, we don't do that anymore. We used to do that in the CATS testing. We used to do that in groups, performance tasks. I used

> to do that on the KIRIS test four years ago or so, they used to put them in groups, and they had to have a hands-on performance, and they called that performance tasks. You're looking for a finished product. It's something they're real involved in, and that requires creativity. (Teacher P)

Again, we are not surprised by teachers' understanding of performance tasks. The district definition, provided in footnote two, is too general to provide real guidance about the form and substance of tasks. Almost anything that a teacher did to assess student learning – from a quiz to a test to a research report – would seem to count as a performance task given the definition.

Comments by central office administrators, School Support Resource Teachers and Clark Fellows reveal that at the district level, there is not yet agreement about what the performance tasks should include.

> We're having this debate. How discrete is a performance task? Is a performance task assessing a very discrete performance standard? For many people, the thinking is [that it has] more of a culminating nature that brings together a number of performance standards that may be across contents. And I'm not sure. For my own thinking, maybe it's both. We've talked about the idea that there are springboard tasks, that there are layerings, that there's a layer of tasks. And the danger in developing a performance task that tends to assess a number of standards is, if the student doesn't do well on that, how do you know which one to target [for re-teaching]? I think these are things that we really need to be very clear and very purposeful about communicating to teachers. And teachers need to be part of the conversation on that. (Central Office A)

> I visualize [a performance task] as ongoing evidence and not just an assignment, not just necessarily a culminating event. Some of the standards could probably be demonstrated through some culminating event, but I would like to see those as the guiding picture that they're working toward, and there may be a number of things, [tasks] along the way. I would like to see a classroom where performance standards were posted, and a variety of kinds of assignments that have been done that actually support that standard, so a kid could see that it may be a quiz on this day, it may be a performance task on this day, it may be a report on this. But all of these things are linking ultimately to whether I can show that I can do those things. And that this is an example of what that looks like with some quality. We're light years away. (Central Office B)

Given the fact that such discussions are still ongoing at the district level, we think it is premature to be asking teachers to develop performance tasks. With lack of clarity about what they should focus on and their purpose, teachers will, once again, be trying to implement a component of standards-based reform without sufficient knowledge. In addition, those trying to support their efforts, will be doing so without common agreement about what they are trying to accomplish. It may be that since we collected our data in May 1999, the district has achieved greater clarity around the topic of performance tasks. If that is so, then it may make sense to convey that knowledge to teachers and have them work to develop such tasks. If that is not so, then we think

it will be a great waste of teachers' valuable time to engage them in work that is poorly defined and unlikely to forward the work of the district's reform agenda.

Before leaving this topic, we want to note a potential problem associated with performance tasks. It is possible that, in an effort to develop common tasks that can be used within departments and, perhaps, across schools, the tasks will be so highly specified that they will result in students producing identical work. The tasks can be designed to snuff out student thinking and creativity. We have seen this happen in other districts and caution Louisville to avoid this pitfall. We repeat the concern that we articulated in our August 1998 report when considering the district's plans to have teachers develop their own performance tasks.

> We agree that Gheens staff cannot and should not provide all of the performance tasks. After all, tasks must be tied to the particular curriculum that teachers use. However, we urge Gheens staff, principals and teachers to attend to the quality of the tasks, as well as to the quality of student work associated with them, from the outset. We think this is important because there will be a tendency for teachers to want to create tasks that enable a wide range of students to succeed. After all, teachers have been grading student work on a) the quality of the work itself, b) their judgment about the students' capability, and c) the amount of effort the student brought to the task.[6] For the first time, they will be asked to assess student work only in relation to the standards. And they will be asked to do this for everyday work, not just for KIRIS, the state assessment. This will be extremely challenging and teachers may resist creating high quality tasks that they think their students will fail. One way to avoid this dilemma, is to create tasks that describe the components of the work -- the number of paragraphs, the thesis statement, the number of references -- without describing genuine indicators of quality. If the district pays close attention to the early phase of performance task development, it will be able to determine whether this is happening and, if it is, how to encourage teachers to develop better quality performance tasks. (P.16)

Knowledgeable individuals in the district are also aware that performance tasks must be linked to new ideas about assessment and how it should be embedded in ongoing instruction. Such ideas, articulated in the following quote, need to inform the district's next steps in moving forward with performance standards and performance tasks.

> I think part of the reason why as a district there was a reluctance to start generating the tasks and benchmarks was because we saw what happened with the state assessment version of that. People never really understood that those tasks, those assignments, those open response questions, were really just what should be embedded in their work at all times. And they just use them in isolation. There is no focus in that. So that's why I think there's been a reluctance to [move forward]. I thought, that we were going to help people learn to develop their own initially, and then out of that would grow the need for the consistency across the district, of

[6]See the August 1996 Baseline Report for more detail on this finding.

> a way to measure performance across schools. That's where I thought we were going. I still think that's where we're trying to go. (Central Office B)

In presenting these data about the state of teachers' knowledge, we do not intend to criticize teachers. Rather, we want to point out that the district's own knowledge of the components of standards-based reform is not yet fully developed and that its approach to professional development about the meaning and implications of the components of reform has been weak. Teachers do not sufficiently understand either performance standards or performance tasks. Given that the roll out is a three year endeavor, there is still time. However, we are concerned that, at the end of the first year of the effort, very few teachers understand what the performance standards are, how they might be linked to performance tasks, and what both of these components of reform have to do with agreed-upon quality standards in the district.

In an earlier report, we quoted a central office administrator who identified a conceptual shift that is key to standards-based reform. She noted that it is no longer acceptable to say, "I taught it, but they didn't learn." With standards, it is necessary for the teacher to consider what might have been ineffective and wrong about the teaching. With respect to professional development for teachers and principals around performance standards and tasks, we think it is time for the district to ask itself what is missing in its knowledge base and what is weak about the professional development route it is taking so that it can implement more effective instructional strategies.

Looking at Student Work (LASW): School-based Professional Development

For the last several years, teachers have been LASW in order to help students improve their achievement on the state assessment open-response items. However, as we reported in our August 1998 report, looking at students' open-response items helped focus teachers on the strategies that students lacked but not on the pedagogy with which they might teach those strategies and the accompanying content. We agreed that LASW could be a powerful tool with which to improve teaching and stressed that in order to have this desirable outcome, the protocol used to look at the work needed to help teachers focus on the quality of their assignments and their teaching. We also suggested that teachers might need external support, some skilled facilitation, in order to engage productively in this kind of work.

In each of the schools we visited during the 1998-1999 school year, teachers continued LASW to try and determine what they needed to teach in order to help improve students' scores on the CATS open response questions. In some schools, to generate the work that was examined, students responded to a schoolwide prompt that might have come from any of the core content areas. In others, departments prepared open response questions and then examined the responses to determine areas of focus. Another variation involved team teachers developing and implementing prompts. The frequency with which this work is done has increased in some of the schools.

Although most of the work being looked at is still designed to fulfill the demands of open response items, it is clear that teachers are considering more than the form of students' responses in their LASW sessions. Teachers described the purpose of LASW as improving on-going assignments and instruction. One school reported that it looked at student work to fine-tune its

literacy focus. Often the LASW work was facilitated by one of the Clark Fellows or a School Support Resource Teacher. These individuals provided different kinds of protocols for LASW but each had as its purpose helping individual teachers understand better the work that students were doing in light of the assignment given, the teacher's instructional strategies, and the teacher's expectation for quality work. This is a move in a good direction.

LASW is not proceeding with the same intensity or focus at all four of our sample schools. Two of the schools are heavily focused on scoring open response items, looking for weaknesses in student understanding, and addressing those areas. One of these schools looks at schoolwide open response items several times throughout the year; the other has students write open responses on their teams each week. At the latter school, the intensity of LASW has been enhanced by the school's participation in the Pilot Professional Development study and by serious implementation of its Consolidated School Plan (CSP).[7] The frequent examination of student work has strengthened teachers' ideas about the links between what they teach and what students can do. Their work is sustained by strong principal leadership that makes maximal use of the School Support Resource Teachers and Clark Fellows. One school in our sample is doing little systematic LASW. And, one school shows evidence of having expanded the number of occasions for LASW although this activity has not yet become a regular part of teachers' work. For the most part, teachers report finding LASW stimulating and productive. They identify a number of ways it benefits their work.

First, teachers report that focusing on scoring open-response items gives them an opportunity to reach common understandings about what a particular score means.

> We give students the same questions [and then we score our own]. I re-scored some students from other teams, and other people re-scored some of mine. A lot of the teachers sat down and discussed, "Why do you think this is a 4?" That type of thing, which I think is beneficial. (Teacher W)

> It helped me in a group setting to grade papers that were generated by my own students, and compare, and flip around the room, and say, "You gave this person a 3? Well, I gave them a 2." And then sit down and reach a consensus and learn from my own mistakes. ...If I gave it a 2 and you gave it 2, we assumed it was a 2. But if I gave it a 2 and you gave it a 3, it went in the pile of do again, probably using someone else instead of the two of us again. That was real enlightening to see how those rubrics are interpreted sometimes. "Oh, I thought that meant whatever." "Well, I read that to mean this." So even the rubrics sometimes are difficult. I think I wrote better rubrics after that, and I think, I really think I started grading a little harder. (Teacher Q)

At another school, students respond to open-response items generated by individual teachers. As a result, when they are LASW, teachers are examining both the assignment that the teacher gave

[7]Only a few teachers are directly involved in the Pilot Professional Development work. However, in this school, the members of the Pilot Professional Development team are very active in other school-based professional development such as LASW. Their participation enhances the school's LASW activities.

and the work that students produced. As the next comment reflects, teachers are finding this work to be beneficial. They know that it can be threatening to expose themselves to their colleagues' critiques. However, they are finding that participating in the process can be quite positive.

> The teacher that had the samples felt much better about her assignment, and then she got good feedback as to what she could change for the next one or keep the same. And she graded harder than we did with her, and therefore I think she just really, she felt that it was supported. I think she anticipated that everyone was going to pick on this and tear it apart. But that's not what we were there for. But you always have that feeling that, "Oh gosh, it's not as good as I thought it was going to be," and that type thing. (Teacher J)

Such conversations can be the beginning of the process of creating common performance standards.

Teachers also report that they looked at work with an eye toward whether the work was actually tied to a standard that should be taught and whether it met the standard.

> [We did LASW] not only to see where our students stand, but to make it a learning experience for all of us. What did we need to cover? Did this meet the standard that we thought it did? Did it fall into something else or was it one of those that should have just been ditched? [Then] you can compare your kids to the other kids. I would say, "Oh, Miss X and Miss Y's did better than my students. Maybe I'm slacking here." "Oh, my kids are better than hers. Maybe she better get on the ball." And I don't want to be embarrassed and have my kids do the worst school wide. ... I don't want them to be embarrassed, so [LASW and the common scoring], it's a motivator, not only for the kids, but for the teachers. (Teacher D)

> Our team does look at student work. We evaluate it, with our curriculum maps. The biggest change that I've seen [as a result] is department wide, team wide, and school wide we're teaching the vocabulary, because a lot of our kids have the skills [to answer questions], but when [they're asked a question] in certain ways, they don't know what's being asked of them. (Teacher W)

LASW activities have also helped teachers think about pacing and the extent to which they are accomplishing agreed upon goals for the year. It helps them work with one another to ensure that the curriculum content is taught over the three years of middle school.

> We get to talk about student work every time we come together [as a department]. We look at our curriculum mapping that we did at the beginning of the year and try to see where we are, or how the kids are handling it. Is there a difference in grade levels as far as how they're handling it? We spend a lot of time asking each other, "Are you where you thought you would be?" You would see us marking out a lot of things and getting more and more realistic as the year goes on. Like, "We're not going to be able to get this done. Are you taking care of it on your grade level?" [We might say] "You need to be prepared for this next year, because even though

> we went through it they're having difficulty with it." Or "These kids really have this and you only have to spend a little time on this next year." So it helps, from 6th grade onto the 8th grade. (Teacher K)
>
> We learned more about curriculum. One of the questions we looked at was about a mode. And it said, "What score does Suzie Q have to get to make her average an 82?" We understood that they all knew means. They all knew how to calculate it, but they didn't understand how to go backwards. So we knew we had to work on that part of mean and mode, working backwards, and we've done that. The kids all had trouble with, I forget what it was. But we sat down as a department and talked about what we all taught. And at one point we found out that nobody taught this. [We agreed that] Somebody has got to teach this part. We've done that as a department. (Teacher F)

As a result of the implications of their CSP, core content area teachers in one school are closely following the progress of a small group of students in order to see the impact of their teaching over the school year. Each team's group of four or five students includes high, mid-range and low achievers. Teachers provide open-response items once a week, rotating the content areas. They have a record book in which they keep track of students' achievement, paying attention to the reasons for students' scores. For example, they might note that one student did not understand the content while another did not complete all parts of the open-response question. Once a month, team teachers come together and see how well the small group of students are doing and decide what they need and how to approach teaching them during the next month. This strategy gets teachers to look closely at on-going student work and learning and provides them with a way to chart individual student progress over time. Even though the kind of work examined is only that produced by open-responses, the process and strategy is a significant move in the direction of tying student learning to pedagogical strategies as this teacher's comment reveals.

> The reason we decided to do this is because we thought we knew how the kids were doing but we realized that we needed to specifically follow kids in order to see how far they've come. When we get our (state) test scores, it doesn't really show how we are. It says novice, but five years ago it said novice. So we needed a way to prove how much we've gained in the year. So that's when we figured out we could go and watch kids, so that we would know the starting point, and then we'd know the end. Now, the end's not going to be apprentice but it's going to be closer to high novice. So, when we look at student work it's to show how far we've come and what the students have gained. Because out in the world, it's going to show up novice. (Teacher M)

One could hope that, given such close attention to teaching and learning, that some novice students might even move into the apprentice category!

In another school, LASW came about with the help of the School Support Resource Teachers and Clark Fellows. Teachers involved in these experiences reported being enthusiastic about what they had learned from them.

> I had given a test when we just finished the elements, and they had to choose metal, non-metal or metalloid, any of the two and compare and contrast them. And I wrote a little open-response question as part of their assessment. I gave them a question and answer test. And I used that at one of the in-services that we had for my department to analyze. And that was great, because a lot of kids were able to tell me differences, but they were not able to tell me similarities. And I realized through the discussion that I had with the team, that I didn't emphasize the similarities. To me, it was very obvious, they're all elements. But I didn't emphasize it with the kids. I was emphasizing the differences, assuming that they would understand that. And what was real enlightening for me to realize was that I hadn't taught it. That's why they couldn't tell me right! I thought it was wonderful. (Teacher G)

> We had a department meeting a couple of months ago, and people from outside the building came to the department meeting and they asked that we bring student work. They used a piece from me, an open response question that kids had done. I did a rubric for it and I brought samples of student work and we made a copy of one student's work, and everybody read it. First you went through it very carefully and decided "What did they do right?" And I loved it, because usually you're looking for what they do wrong when you look at a piece of work. They went through it, and we kept doing a round robin type of thing, person by person, until there was nothing more to say. And then we talked about what we would like to see, but it was amazing the list of things that the student did right. Instead of looking at it as one whole paper, you broke it down. That was really helpful for me, because I told them, "I'm so used to looking at what's wrong with a paper, I don't take time to talk about what's right with it," and I said that was very helpful. (Teacher X)

Despite these teachers' enthusiasm, we know that there are teachers who have not yet seen the benefit of LASW and have done little of this kind of work. We also know that there are teachers who are frustrated by its increased use because they do not see any benefit to the work. As the next teacher notes, she is troubled by the fact that she and her colleagues have not yet been able to figure out how to help students learn what they do not know. She recognizes that the value of LASW lies in helping students learn and is frustrated that the process does not include sufficient attention to developing new teaching strategies.

> We've done [LASW] over and over and sometimes I don't understand why we keep doing it over and over and my question is: "What are we doing this for? We keep looking at what students are doing. We know they're not doing what they need to be doing. What is the purpose of doing this over and over and over?" But I think most of the time the reasons that we're doing it is to look for things that are schoolwide. We're trying to look for schoolwide problems that maybe we can solve. That we can say, "This is a problem we need to fix." That we all know we can all do it, or a team problem or something we're neglecting or missing that we can all work on together. (Teacher W)

Finally, we include a quote from a teacher who likes the process and sees value in it but did not agree with her colleagues' conclusions. The quote suggests some of what can happen in the absence of agreed upon standards of performance.

> And it was really good. The math teachers went around, and [talked about] "What was good about this work? And what was bad about this work? Did it show what the child knew, what the child misunderstood?" And I couldn't say a word. I gave the context in which it was given. But I could not say what I expected, what I thought she did right, what I thought she did imperfectly. I had to sit there and listen. And I liked that. I thought that was good. I heard I was too hard on the kids. I heard that I should ease up a little bit, because they thought [the work] was really good, but I said. "No, I would have expected more from this kid, knowing the kid." But I could not tell them a thing about this child. I couldn't say that I thought she was one of the smartest kids on our team. I could not say that I thought she should have an excellent paper, and that [this one] did not meet my criteria of excellence. (Teacher Y)

We think that these examples of LASW and teachers' responses to this kind of activity are encouraging. They are examples of new, collegial practices in which teachers are engaged. They relate directly to curriculum and instruction. For the most part, they do not yet reflect attention to performance standards and performance tasks. However, they demonstrate that the cultures of some middle schools are changing and that teachers are becoming prepared to deal with some of the more complex ideas associated with standards-based reform. As we said earlier, we did not find the same degree of attention to LASW in all four schools. However, in those schools where principal – and sometimes teacher – leadership is encouraging this kind of work, it is happening. Clark Fellows and School Support Resource teachers confirm that such practices are happening with much greater regularity than in the past.

> And if you were in this building, I think you would have a lot of resources where you could sit down and look at some of your student work with some other teachers, because that is a practice that is becoming more and more accepted in this building, (Central Office E)

The Status of Instruction in Middle School Classrooms

Standards-based reform aims toward increasing the higher order thinking skills of students with respect to the content they must learn in school. It aims to make students active rather than passive participants in their own learning. History is no longer to be merely the accumulation of dates and names; mathematics is to include understanding and not only algorithms. This transformation is difficult for both students and teachers. Students may not yet be familiar with what is being asked of them. They may not understand what they are being asked to do; they may not have learned how to answer complex questions; and, in some instances, they may be uninterested in putting forth the required effort. Teachers, for their part, may not fully appreciate the implications of reform for their practice. They may come to realize that they are uncomfortable with new approaches to pedagogy and unsure about the extent to which their own content knowledge is sufficient for the task of teaching to standards. On the other hand, some students and teachers will

find the new approaches to teaching and learning quite familiar. Implementing standards-based reform may require little of them other than tinkering with what they considered ordinary practices.

Our work in Louisville suggests that classrooms across the district, as represented by the four schools in our sample, include each of these possibilities. We have seen teachers who are struggling to engage students in higher order thinking, only to be thwarted by the students' unwillingness to participate. We have seen teachers expertly engage students in productive work that helps them generate new knowledge and skill. And, we have seen teachers whose content knowledge is insufficient for the task of teaching to standards and whose view of what students need to know and be able to do is far too limited for the goals of standards-based reform. We have also seen teachers who have not yet made any attempt to alter their practice in ways suggested by standards-based reform. What we have not seen, yet, are examples of teachers who have significantly changed their practice over the years that we have been evaluating standards-based reform in the district. As we reported earlier, we have seen greater attention to curriculum alignment and to insuring that students have access to knowledge on which they will be tested. We have seen greater attention to literacy across the content areas. And, we have seen teachers try small group and interdisciplinary activities. However, these approaches to improving student achievement have not fundamentally altered the pedagogical strategies that we see within and across classrooms.

In this section of the report, we want to describe three teaching situations that represent the ways in which teachers are addressing the demands of standards-based reform. The first two vignettes describe teachers who are reasonably successful, in our view, at engaging their students in productive work in which they, the students, are contributing to their own learning.[8] The second two vignettes represent teachers who know their content and are trying to engage students as active participants in their learning. They find that their strategies are effective with some classes and ineffective with others and they have not been able to figure out viable alternatives. As a result, we see these knowledgeable teachers working harder than their students. The last vignette demonstrates teaching that is far from standards-based. The teacher appears to have limited mastery of the content and requests nothing more from students than the memorization of small bits of information.

These five examples are not the only ones that we could have provided. But we present these because they provide examples of teachers who are using standards-based practices and teachers who are struggling to do so. We present the example of weak teaching because we think such practice requires immediate attention. What we have not included in this report are examples of teacher directed classrooms in which students are quite passive but teachers are content with their practice and with students' involvement. We provide these examples to enable the district and the schools to consider the issues with which many teachers are grappling and to reflect on what might be helpful in these kinds of situations.

Enabling Students to Take Responsibility for their Learning: **Vignette One.** In this class, the teacher successfully engages students in work designed to review and enhance their

[8]In our January 1994 report, we described two other classrooms in which we saw this kind of teaching.

understanding of the structure of a certain type of short story. The teacher facilitates the students' work, but, fundamentally, it is the students who are doing the work of learning.

Teacher 1 begins with a whole-class review of the parts of a short story. She has put a diagram on the overhead and calls this a "story map." It is a mountain-shaped image, with "rising action" written up the left slope, "climax" at the top, and "falling action" down the right-hand side. The teacher points to each of these parts as students look at their versions of the map which are in their notebooks. Teacher 1 also points out elements such as characters and conflict which are not on the map. She asks for questions, and then says, "Okay, close your note books and put away your story maps."

Next, Teacher 1 passes out a 5 x 8 envelope, a large piece of butcher paper, tape, and several magic markers to each table group. Inside the envelopes are cut out sections from a xeroxed short story the class read a few days ago. "Your task," Teacher 1 says, "is to copy this drawing of a story map from the overhead onto the butcher paper. Make it big, fill the page and then paste on the cut-out sections of the story onto your poster to match the story elements with the events in the story in the RIGHT sequence. Read all the excerpts first, then decide among yourselves what should go where." All 26 students are quiet. There are a few quiet side conversations, but students soon focus on task.

As the students begin to copy the story map shape onto their posters, Teacher 1 moves through the tables, urging kids to move their books and papers. " You need room to work." As the groups finish with the drawing, she says, "One person should handle the poster paper, and one person should read the excerpts aloud while everybody together figures out what goes where. Make sure you read every section before you paste it on!"

The students appear fully engaged, with their heads together, reading over each other's shoulder to see the excerpts. "Oh, that's when he brought the presents to school, that's got to be before the climax," said a girl in one group. "Yeah but which one of these is the climax?" asked another. There is gentle arguing at some tables: "No, no, he didn't feel that until after the death of his mother! That can't be where it goes."

The students work with the story maps for a good 40 minutes. Every table stays focused, figuring out the sequence. No one has called the teacher for help, but she is available, strolling around the room and complementing on neatness and ordered sequence. "Very pretty!" Several groups get done about the same time, but no one group shoots out ahead. The story maps they have drawn include a "resolution" line, something the teacher had not dwelled upon during the review. "So what's a resolution again?" a girl asks, as the teacher sweeps by one time. "Ask your table mates!" says Teacher 1, placing the responsibility on students to assist one another. The student does this.

"Okay," announces Teacher 1. "Now that most of you are done, pull out the maps of this story we did last week, and check your work. This is called self-assessing." The maps they did earlier were glosses in their own words, which this specific work with actual language from the text illuminates. "Oh, cool!" says one boy as he compares his scrawled worksheet and the large, glued, colored showpiece his group has created. "I got it right all along!!"

"Is there a group which would like to show the rest of us what they did, so we can compare our thinking?" A table from the middle of the room, a cluster of boys and girls that seemed to have no real leader, but which created a beautiful final poster, waves their hands. "Okay, go for it," says Teacher 1.

The whole group stands in a line. One student holds the poster while different group members take turns explaining which paragraphs they placed where and why. Their presentation skills are weak: they tend to stand and talk with their backs to the group and mumble. They have no stage presence, no volume, but they are not shy or nervous. The teacher asks them to speak up several times.

When they get to the placement of the 3rd paragraph, there is a disagreement from students in the room. "No, I don't think that belongs there," says a girl from the back table. "You have to swap your 3 and 4. It didn't happen that way you have it." "What does anybody else think?" asks Teacher 1, encouraging the students to engage with one another. She does not supply the correct answer. There is general agreement that the group at the front has made an error on this one and that the two paragraphs need to be swapped. The presenting group shrugs, laughs it off, and agrees they "blew" that one.

At the 5th paragraph, another student challenges the sequence, but can't really say why it should be changed. Because class time is just about up, the teacher steps in and provides a rather detailed justification for changing the sequence. Then the students clean up their work and are dismissed.

We think it is important to note in this vignette that students know what they are to do and sustain their independent work for a considerable length of time. They share their results with others and deal with challenges and questions from their classmates. Certainly, the teacher has an important role in helping them to learn about the structure of short stories, but she has arranged the class in such a way that the students and not the teacher are doing most of the work of learning.

Enabling Students to Take Responsibility for Their Learning: **Vignette Two**. In this math class, students worked in small groups and as a whole class. Students appeared actively engaged throughout, seemed to enjoy and profit from the small group process, and were obviously used to it, as there were few management issues around organization. The teacher seemed completely comfortable with asking rather than answering student questions, using somewhat of a Socratic approach to instruction. Students were asked to think: to think aloud with her, to think with each other, to think on paper, to think through hesitancy, and to think through possibilities.

"Clear your desks!" Teacher 2 calls out as she crosses the room. "You don't need anything but a pencil!" Books are piled on the floor. Chatter slowly dies away and Teacher 2 moves to the overhead projector and clicks it on showing " B with an exponent E" "What is this?" She watches a few hesitant hands go up. "Before you answer, think carefully. We've talked about this. Who knows?" More hands go up. "Okay, Tom, what do you think?" "A base with an exponent," says Tom confidently.

"Hm, yeah, but explain it to me the way you would to your mother if she'd never heard of this thing. Come up here and explain it on the overhead." As Tom comes up to the front, Teacher 2 eyeballs the rest of the class: "And if anybody isn't sure about what Tom writes up here, be ready to add to his explanation." The boy stands awkwardly at the overhead, pen in hand. He seems not to know exactly what she wants.

"How do you know which is which when you look at it? Which is the base? What's the exponent?" The boy writes on the overhead: the base is B, the exponent is E. "Which one is the factor?" Blank look. Teacher 2 looks at the class: "What's a factor?" "I'll look in my book, "Tom says, and starts for his desk.

"No!" says Teacher 2 and grabs him by the shirt, and hauls him back. "You stay right here, sweetie." The class hoots. "Sweetie!!" Everybody laughs, with affection. She talks to everybody like this. Back to business: "Who knows what a factor is?" Hands go up around the room. She calls a girl whose hand was not raised. She answers tentatively, softly. "Well, it's the numbers you multiply together." "Yes! Now, Tom, which one is the factor here? We went over this, this morning, remember?" Tom squints, looks. "Uh, the base is the factor." "And the exponent is…" coaches Teacher 2. "The exponent is how many times you use it—multiply it by itself, sort of," says Tom. Teacher 2 throws that out to the class for validation and refinement. There is general agreement that Tom is right." Teacher 2 releases Tom and tells the class to write on their scratch paper: (*- 4) to the 3rd power. (She used exponential notation.) "Now, write down what the factor is here."

Teacher 2 wanders from table to table. "Come on, Howie! You can do this!" she says to one boy at a front table. She goes to the back wall and leans against it. "Mr. G--, what is the exponent here? What is the factor?" The boy confuses the factor and the exponent, and loses the idea of the parentheses altogether. He says "4 is the exponent!" Teacher 2 sends him to the overhead. "Nope, not yet. Help us all get this straight. Write down what we all figured out." Two other students guess at the factor, together figuring out that *-4 "the whole thing together" is the factor. "Right!" exclaims Teacher 2. She asks the boy at the overhead to draw a dotted circle around * - 4. "That whole thing IS the factor. Everybody draw that on your scratch paper." She watches them do it. "Now," she says, " What's a solution to this problem?" A girl raises her hand, Teacher 2 nods and she goes to the front and writes on the overhead: (*- 4) to the third power

4 x 4 x 4

Teacher 2 says, "Then what's the * about?" The girl shakes her head. "Who can help us here?" "I know!" James jumps up and goes to the overhead. The whole class is watching now.
He write: 3 x 3 x 3

9 x 3

27 Teacher 2 turns to the class again. "What about the * and the 4?"

"Alicia?" From her desk, Alicia explains that you have to multiply the * - 4 three times.
"Yeah? Well what would that look like? Put it up there." Alicia writes:

(*-4) (* -4) (* - 4)

"And why didn't you use a dot or an x to show multiplying?"
Before the girl can answer, a boy in the class sings out: "Because that's what parentheses mean!"

"Thank you, 'Alicia '," Teacher 2 teases him. "But you are correct. Parentheses are understood as multiplication. You don't need a dot." She moves back to the overhead and underlines what Alicia wrote. She circles again the whole phrase (* - 4). "The factor here is the WHOLE thing here, multiplied three times."

Then, Teacher 2 tells the class that each group has a different problem taped face down on their table. They are to solve it together. "I want to see you up on your knees [on the chairs]. I want to see you listening, asking questions. I want to see one person talking at a time. Figure this out! You will be reporting out on the overhead, and I will choose who will talk, so make sure everybody is up to speed. Any questions? Go."

The students are obviously used to this. They eagerly turn the cards over, and kids are immediately up on their knees. Some groups are more enthused than others. Some groups are clearly more comfortable with each other. There are both quiet girls and boys in several groups who hang back, and let other kids lead. In all groups, though, one person has the card and is reading it aloud to the rest of the group, who are listening. One problem reads: If a family has seven members, and everybody like to hug each other, how many hugs are possible? Another is: If seven airlines have nine different planes, how many different ways could you fly?"

Teacher 2 moves from table to table, coaching. "Try using brackets." "What do you know? How could you write that?" The table with the hug problem is stumped. They raise their hands and call her over. She sits down with them. "Well, you could all starting hugging each other and figure it out that way," she says, poker-faced. The kids look at each other nervously. "Well, okay, what if I hug Mary then you and you and you? That would be--?" Four hugs, say the kids. "But when it's Mary's turn, how do we count because she and I have already hugged?" We can't count that one," a boy says. "Oh," says a girl, "we better read this again," and she's up on her knees leaning into the middle of the group, re-reading the problem. The students listen again, and Teacher 2 fades away to the next table.

One group has a problem about coins. "Explain the problem to me," says Teacher 2. "What do you have to do?" This is apparently a familiar question, because the whole table chants almost in unison, "Find a pattern!" "Yes," says Teacher 2. "It is often about finding a pattern! How do powers and exponents work with this problem?" Teacher 2 moves back toward the hug table and confronts a boy who is starting to get off task. A girl at another table pulls out her purse and looks at herself in a mirror, briefly.

Over the next 15 minutes, the chatter increases across the room, but all groups seem to be engaged. As they get done, various students start doodling and carrying on side conversations. Teacher 2 warns, "Three more minutes! Remember I will pick the presenter from each group!" That temporarily sobers the crowd. A boy at one table says to his team, "Has everybody got this thing?" "No, explain it to me again," says a girl.

Teacher 2 re-groups everyone. "Okay," she says, "let's get…(her eyes roam the room, while there is absolute waiting silence) … Marco! up here." He rolls his eyes as his table mates hoot and clap, and he comes to the overhead. Teacher 2 has him read the group problem which had to do with a restaurant that offers 6 entrees, 8 beverages, and 4 desserts. The question was: How many possible

combinations are there? "192," says Marco, without writing anything on the overhead. All eyes whirl to Teacher 2. "Is that right?" "Well, how did you get that?" asks Teacher 2. "You're going to have to show us that." Just as Marco starts to make a chart listing six entrees, there are three interruptions over the PA. Class time is effectively over. As students get ready to leave, Teacher 2 says, "We will start where we left off. So bring back this work from today. You will need it."

Teacher 2 requires students to do the work of learning by the way in which she interacts with them. She encourages students to explain their work, to question one another in a positive manner, and to rely on one another for explanations and elaborations. Teacher 2 asks questions that will help the students think more deeply about their work and she provides clarification when that is appropriate. Without question, Teacher 2 teacher plays an essential role in **orchestrating** learning. The students, working together, are active participants in that learning.

The next two vignettes describe teachers and teaching in which the teachers play a more dominant, directive role in instruction. These teachers, like Teachers 1 and 2, know the content they are teaching and care deeply about it. They struggle, however, with how to engage students in actively participating in their own learning. Both described this struggle in interviews and noted that their teaching strategies have been effective with other groups of students. They recognize that their strategies are not effective with the students we observed. Teachers 3 and 4 are not pleased with the way in which their voice dominates the classroom, but they are at a loss as to how to proceed differently. We present these two vignettes to describe the ways in which these teachers cope with the seeming lack of student engagement and motivation. We present them because they portray a situation and a response which we saw in many classrooms. In some classes, teachers do not see the kind of pedagogy portrayed here as problematic; however, these two teachers would like to be able to teach in ways that engage the students more directly in participating in their learning. Their issues deserve attention from those concerned with professional development in the district.

Struggling to Engage Students in Their Own Learning: Vignette Three. Teacher 3 exudes a great deal of energy while teaching. She moves around the room and uses her voice to convey her meanings. She is positive and supportive sounding to the children from an observer's perspective. Her comments about writing both in the interview and during the class suggest that she knows what is involved in creating a good piece of writing. Yet, the students in this class did not respond to or reciprocate her energy or enthusiasm. Only four or five of the 29 participated by offering answers during this class which focused on how to improve a) the portfolio entries for which they are responsible, and b) their persuasive writing more generally. As Teacher 3 struggled to engage the students, she worked very hard, but the students did not.

The first fifteen minutes of the class are devoted to an update on what is required in the table of contents of the writing portfolio for the state assessment. Teacher 3 reviews what she had recently learned and asks students to begin to make changes in the table of contents and in the remarks they make to the reviewers of the portfolio. Her tone is positive and she indicates that she thinks the revisions are an improvement. Students are silent during this time and during the ten minutes when they begin to review their portfolios in light of Teacher 3's comments.

At 9:15, Teacher 3 asks the students to put their portfolio papers away with the exception of one they had written to a set of student teachers. She says that they are going to look at what they did well and at what they need to fix. Teacher 3 now tells the students that since they have not been willing to share their work with one another in an effort to improve it (something that disappoints her), she has photocopied their papers with the names removed and will have them share their work in this anonymous fashion. Teacher 3 reminds the students that she is sending their letters to a faculty member at a local college who will have her students read them and give comments back to these 7th graders. These letters, which describe how to be successful with middle school students, thus, have a real audience and purpose.

Teacher 3 says, "Some papers were fantastic, but in some, the revisions were terrible. I read sentences that I couldn't understand. If I read a paper that was disorganized, I looked for the pre-write and, guess what? It wasn't there." Teacher 3 reminds the students of the importance of pre-writes and revisions. Then she says, "Today, we will practice revising again. You are going to practice being the reviewer. I know you sometimes worry about hurting people's feelings, but sometimes you need to tell what you think to help people get better." Teacher 3 then tells an appropriate story from her own childhood to illustrate the point. After the story, she give students some strategies to use when giving each other feedback. Teacher 3 talks very quickly. Students listen in silence.

Each student has the packet of letters and Teacher 3 reads the first paragraph of one of the letters and notes that it is a good example of voice. She reads:[9]

> Ok, now lets (sic) talk about how you can get revenge, and how you can be better. Number one never ever do the think I just said. Don't be grouchy. You got to humor. "Humor Baby, Humor Baby!" Act like a kid. Think kid. I know you got it in you. Just let it out. Play some games...

Teacher 3 likes the voice, but notes that the piece needs improvement. She says, "You've got to humor doesn't make sense." The teacher's pace is quick; she is doing the explaining while the students seem attentive and are silent. Next, Teacher 3 reads from the second paper:

> The first and most important thing is to have good attendance. I will try but what is the big idea about it. When those substitutes are here they just mess up the day. They can't answer questions and they also get us confused because they teach a different way than our normal teacher does. Teachers should only miss 2 to 5 days, this also goes for us students too.
>
> The next most important thing is not to eat or drink in class. I had a bad experience with this before. I was trying to study when all of a sudden I heard the carbonation of a coke rising out of a bottle. SSSSS! I looked up ans saw my teacher slurping down on a 20 oz. Pepsi. I tried to ignore the slurping sounds and get on with my studying. After about a minutes of horrible sounds I heard the rattle of a bag. I

[9] Quotes are taken directly from the letters which we collected as data.

> looked up from my work for a second time and seen a bag of Doritos and my teachers (sic) hand in it.

Teacher 3 says to the students, "What do you say to the student who wrote this? What did they do to convince you that the teacher shouldn't eat in class?" A boy says, "sensory detail." Teacher 3 does not ask the student to give examples of sensory detail. Rather, she says, "Very good. You could hear the slurping and the crunch of the Doritos."

The third example had in it the following sentences:

> Teachers also have a planning period. I am not saying that you will eat in front of us but I am just telling you this in case you do and don't remember.

Teacher 3 offers her comment on this sentence saying that it is a run on sentence and confusing. She asks students how to elaborate the sentence, "Teachers also have a planning period," so that it is clear that the student thinks that is the time for a teacher to eat. She says, "It's a goofy sentence, but a good one to build on." No student responses were apparent.

This part of the class continues for twenty minutes, after which Teacher 3 asks the students to read the fourth letter to themselves. She wants to engage them in making the revisions this time. Her prior approach, she said in her interview, was to model for the students how they should talk to a revision partner. Now it is their turn to try out the partnering process. Teacher 3 says, "Ok, you're the revision partner, say something nice. Susie, what would you say was good about it. I want to know what the student did that was good." Susie says something about elaboration and using the voice of a middle schooler. She said that the piece was not rude to the student teacher. Teacher 3 then asks, "What about the introduction?" and a boy says, "It's hard to understand because it says the same thing over and over." Teacher 3 says, "The first paragraph doesn't work. Why didn't the revision partner tell? Or maybe he told and the partner didn't listen." There is no attempt to get the boy who makes the comment to say anything further about how he would specifically help his revision partner, no suggestions for alternative strategies for helping the partner. There is some further teacher-led discussion of elaborating the next sentence in the letter.

Teacher 3 concludes this discussion by telling the students that they have to get better at making these kinds of revision comments. It is not clear, however, that the teacher's modeling of making revision comments has enabled the students to learn this skill. They have not had the opportunity to try the process during this whole-class instructional period. For the most part, they have had to listen rather than produce examples of helping a revision partner.

One half hour after this section of the class began, Teacher 3 asks all students to read the fifth letter in the packet and decide what they would say to the writer. She wants them to begin with what the student did well. One girl mentions voice and another says that the writer offered opposing views. Teacher 3 asks, "Is this the only way to present the opposing view?" Students say, "No," and a boy says that an argument can go to the heart and the head. There is more head in this letter, he concludes. There is little discussion of the revision process in this exchange and it is the last one of the class.

It's now nearly the end of the class and Teacher 3 says, noting the limited student participation, "Ok guys. You were kind of out of it today. Let's look at your paper." Then she reviews what students had said about the other letters (voice, elaboration and so forth) and asks, "If you had to be the reviser of **your** paper [to the student teacher], what can you brag on and what did you mess up on that you could have done better? (I am reminded here that only four or five students of the 29 have spoken during the class.) She wants students to take a few minutes and consider revisions to their own, rather than a classmate's paper.

Teacher 3 walks around the room as students look at their own papers and says, "OK, the big skill is elaboration. If you didn't quite get it, I want you to look at the rubric for information about elaboration and get it before you do the next paper." Teacher 3 wants the students to take their papers and the rubric home and consider what elaboration involves. She reminds them that this is to help those who "didn't get it." Finally, Teacher 3 asks the students to take one paragraph from their student teacher letter and revise it in light of what they have been discussing. The bell has already rung and Teacher 3 dismisses the students, asking them to leave the packet of letters on the desk for the next class.

Teacher 3 did a lot of work during this class and provided the students with good models of revision. However, her pedagogy did not engage the students in practicing this skill in the company of each other or in the company of the teacher. Teacher 3 is aware of this problem but unsure of how to more actively engage the students.

Struggling to Engage Students in Their Own Learning: Vignette Four: In this science class, students are studying earthquakes and volcanoes and what makes them happen. The unit is part of the standard that has to do with understanding forces. According to Teacher 4, these students reflect a range of achievement but all of them can read adequately. Some choose not to read and many are not highly motivated to do their work. Students had not completed their in-class work from the previous day and they did not finish it for homework. Teacher 4 said that her biggest problem with the class is students' lack of motivation. Students don't ask questions about what they don't understand; they just sit and so she has little feedback about what is difficult for them at any particular moment. As a result, Teacher 4 does most of the work in the class, trying to anticipate what students will find difficult. She has not been able to figure out how to engage these students in their own learning. They are well-behaved and passive.

Teacher 4 begins class by saying, "Guys, yesterday we talked about faults. What kinds of forces make these move? Name the forces that make them move. You can find them in your journal or in your science book." Noting that the students seemed to be having trouble finding the information with which to answer the questions, Teacher 4 said, "Ladies and gentlemen, let's look at the board and see what we're doing." She continues talking about earthquakes and reviews faults and seismic waves and movements of the earth. It's not clear if most of the students are listening or if this fast-paced review is helping them remember. Teacher 4 then gets more specific about what they should be doing to find the information. She asks the students to open their text to page 58 and their journal to week 15. Students do this.

Teacher 4 then says, "Ok, raise your hand if you can tell me the first kind of fault?" A boy says, "Normal fault," and Teacher 4 says, "Ok, what can you tell me about a normal fault." Another boy

says, “The top rock layer goes down on a diagonal.” Teacher 4 says, “Correct. The rock above the fault line moves up.” Note here that Teacher 4 did not ask the student to further elaborate his answer; she did the elaboration. Then she asks, “What force makes these move?” Before anyone answers, she says to a student, “You’re looking at me like I’ve got it written on my head, and I don’t. Look in your journal.” No one answers and Teacher 4 says it’s “tension force.” Then she says she can explain it with the use of a children’s sliding board. She draws a picture of a sliding board on the chalk board and asks the students to imagine that they are at the top and someone pulls on their feet. They would, of course, slide down. This, she says, is like what happens at the fault.

Now she asks them to move on to the “reverse fault.” In an effort to involve the students, Teacher 4 says, “I don’t remember this kind of fault, so you’re going to have to refresh my memory.” Nothing happens. So, Teacher 4 demonstrates what happens when two blocks are pushed together very hard. Eventually, they pop up and apart and this is what happens with a reverse fault. Then Teacher 4 has them go back to the picture of the sliding board. She asks them to imagine a person at the bottom of the slide who is being pushed up. That, she says, is also like a reverse fault.

These kinds of non-exchanges with the students go on for a bit longer and then Teacher 4 suggests that they talk about land formations and their links to reverse faults. A boy immediately notes that land formations can cause volcanoes. Teacher 4 agrees and says, “Yes. I’m looking for something specific.” Someone says, “Mountains.” That was the answer and Teacher 4 says that the Smoky mountains were formed by reverse faults. She shows on a map where these mountains are and then draws a picture demonstrating the location of the faults that produced the Smoky mountains. A boy wants to know how cracks in the earth occur. He doesn’t get an answer as Teacher 4 moves on to the “strike slip faults,” noting that these faults “go past each other in a slicing motion with pieces of land moving in opposite directions.” At this point, some of the students seem attentive, if quiet. Others seem to be gazing around the room or zoning out in some other way. A brief review of earthquakes and the waves that cause them follows. This includes a very quick review of transverse and compression waves demonstrated quite nicely with a slinky. Students remain silent.
Teacher 4 knows the science content and wants to help students understand and appreciate the forces of nature. However, her questioning strategies and demonstrations do not elicit the responses she wants. In other classes, she reports, they work quite well. She does not know what she could try to change the interaction patterns that exist in the class and the weak involvement of these students in their own learning.

Teacher 3 and 4 know their content. They provide opportunities for students to learn through modeling, demonstrating and questioning. But these strategies are not effective and the teachers know it. In interviews, they expressed their frustration with students’ apparent lack of motivation and unwillingness to engage in the work of learning. Their responses to the situation are to do more of the work themselves – to talk and demonstrate more and to demand less of the students. This is understandable, but they and we know that it will not change the dynamics of the classroom nor enable the students to achieve at high standards. Such teachers need help in learning how to try alternative strategies that might better engage their students in the hard work of learning.

The final vignette presents a very different situation. The teacher appears to have little mastery of the content, providing students with wrong information at times. She wants students to know bits and pieces of data, seeming to care little about the big issues that are embedded in the conditions that led to World Wars I and II and in the fighting of those wars. Students are asked to respond to low-level questions by copying the answers out of their texts. Such teachers and teaching present Louisville with the challenge of either providing intensive, ongoing professional development to such teachers, or of replacing them with others who have the knowledge and skill necessary to enable students to learn.

Teaching With Weak Content Knowledge and Limited Pedagogical Skills. During this class, all 24 students were very well behaved. They sat at individual desks in rows facing the front of the room. Some class time was devoted to silent reading of several pages in the text, an activity Teacher 5 reported doing most days, and some time was devoted to having students answer a set of questions written on the chalkboard. One boy asked a question about who really began World War II, but other than that the children offered no questions or comments of their own.

Teacher 5 began the class by asking the students to tell him about what they read the day before. A girl said, "We read about how many people got killed and what countries were in it." In response to this, Teacher 5 said, "OK, World War I had two alliances. What was one of the alliances called?" No hands went up. Teacher 5 said, "I'll give you 12 minutes now. So, at ten minutes til the hour I'll ask you the same question." Teacher 5 wanted the students to spend 10 minutes reading in their textbook from page 319-321 to answer his question and the others that were on the board. The questions were:

1. When the United States entered the war, which alliance did they join?
2. A formal agreement between two or more countries in war or commerce is a what?
3. What year did World War I start and end?
4. What year did the US enter the war?
5. Who were the members of the Central Powers and the Allied Forces?
6. What started World War I?
7. Name the treaty the Central Powers had to sign. And as part of that, what were the three things that Germany had to agree to?

These are straight factual questions that require no understanding, no connecting of any piece of information to any other piece, and no inferences on the part of students. Students opened their books and began reading. The room was silent for the next ten minutes. Teacher 5 stayed at the front of the room. After ten minutes, Teacher 5 began by asking, "What was one of the alliances formed in World War I?" A girl answers, "the Central Powers." Teacher 5 says to her, "What were the two countries?" And she answers, "Austria-Hungary, and Germany." Teacher 5 then repeats the phrase, "the Central Powers." Then she says, "The Central Powers had to fight somebody in the war. So what was the other group?" A student offers, "The Allied Powers, France, Russia, and England."

Teacher 5 then says, "So, how did the war start?" Before anyone else can answer, he says, "One day the Archduke, and his wife went on a shopping trip to Bosnia and they were shot. It made a lot of people mad. This was 1914. A lot of people at the time were trying to figure out which

culture they were with, so there were the Central Powers and the Allied Forces. So they started a world war in Europe and years went by. I'm just telling you the overview, not a lot of detail. We want to know how it will tie into World War II. How long did World War I last?" Someone answers, "Four years." Teacher 5 says, "What happened in 1917?" A girl answers that the United States entered the war. Teacher 5 then says that the United States was only in the war one year and that was 1917-1918. "After the war was over," she said, "the Allied Forces made Germany sign a peace treaty." Teacher 5 then wants to know the name of the peace treaty. She then says to the class, "Don't worry if we're going fast. We just need to keep up with the other class."

Teacher 5 then tells the students to turn to page 321 in their books, where it says that the Treaty of Versailles made Germany do several things. He asks the students to read the paragraph to themselves one more time. After students had read, Teacher 5 said, "Germany had to do three things as a result of this treaty. What's one of them?" A girl says, "Germany had to lose 13% of its land." Teacher 5 then asks, "What else?" A boy says that they would never start another war. Teacher 5 says, "Really? Read the paragraph again." The boy reads aloud, but stops before it says that Germany couldn't make weapons anymore. Teacher 5 adds that not making weapons was a second condition. The third condition is reported by a girl, who says that the Germans had to pay a lot of money to the Allies. Teacher 5 then asks, "What started the war?" A student answers, "Getting the Archduke shot." This ended the discussion of World War I with Teacher 5 saying, "We just basically went through World War I real quickly. Twenty years later Germany comes back and breaks that treaty and starts a war. What does that sound like that's happening in your life?" A boy raises his hand and says, "It broke a formal agreement." Teacher 5 says, "No. Listen. A country signs a treaty and says it won't do something, and then years later they break it." A boy says "It sounds like Saddam Hussein. Sounds the same." Teacher 5 says, "It does sound the same. It ain't exactly the same. But it's similar. True or false?" she says to the whole class. "True," says the class in unison.

A boy then raises his hand and asks, "Isn't it true that Japan started World War II when it bombed Pearl Harbor?" Teacher 5 says, "We're going to deal with that question before we leave class. Remember, we just talked about two groups in World War II. Now in Germany an army officer came to power. What's his name?" And a boy answers, "Napoleon!" Teacher 5 says, "Not Napoleon." And another boy says, "Adolf Hitler." Teacher 5 goes on to say that Hitler made an alliance with Japan and Italy. She asks, "Who does Hitler say is to blame for the economic troubles of Germany?" The kids say, "The Jews." Teacher 5 says, "Hitler's plan was to take over the world. He was smart and knew that he had to take land around the outside of Germany and work out from there." Teacher 5 then pulls down a map of the United States and says to the class, pointing to the middle of the map, "Imagine that Kansas is Germany. Hitler would then be capturing Oklahoma, Colorado, Nebraska, and Missouri. Was he a smart man? Yes. There will be a Holocaust lesson about what he did next week."

Now Teacher 5 pulls down a very small map of Europe that's located in a world map and she tries to explain what Germany did as it moved along gobbling up land across Europe. She said, "Hitler took Austria-Hungary, but they really wanted to go along anyway. Then he wanted to take Poland. Who did he go to in Russia?" Someone says Saddam Hussein. Teacher 5 says, "No." Another student says, "Stalin." Teacher 5 says, "Yes. And they signed an agreement. Hitler says he's trying to take over the world but won't bother Russia if Russia helps with taking Poland." Teacher

5 continues. "Stalin says, "OK, but I want the eastern part of Poland." Hitler says, "OK." Then Hitler very easily took over Denmark, Belgium, Switzerland, (yes, Switzerland) and The Netherlands. Hitler thought it would be harder to take France, but he did. And then England was left, and worried."

Teacher 5 keeps up her speed moving along through World War II. She finishes and asks the class, "What big mistake did Hitler make?" No one answers, and she says, "He tore up the friendship that he made with Joe Stalin and sent troops in both directions," by which Teacher 5 means both east and west. "Now it's time for Japan to do its job. What was that?" And a student says, "Bomb Pearl Harbor." Teacher 5 says, "That real quick led to the entry of the United States. What country did we get back first?" Someone in class answers, "France."

It's nearing the end of the class and Teacher 5 asks students to get out a piece of paper, put their name on the top, and answer the question asked earlier by a student: "Did Japan start World War II?" Students write on their papers and then sit silently for two minutes until the class is over and they depart.

From our point of view, students had no opportunity to learn anything worthwhile in this class. There were no historical ideas embedded in the lesson, no opportunity for students to make sense of the disparate pieces of information they were supposed to learn. They heard incorrect information and it is unclear that they learned anything worth knowing about the two world wars. Interview data did not illuminate the teachers' ideas about the important ideas that might accompany this particular piece of history. The content standards and the template for performance standards were posted, although without any work attached. The teaching and learning possible in this class have nothing to do with standards-based instruction. The district needs to be aware that this kind of teaching provides students with no opportunity to learn what they need to know.

Conclusions

As we said at the start of this update report, teachers, principals, central office and Gheens administrators have done a great deal in the last two years to focus attention on curriculum, instruction and student achievement. Work on curriculum alignment has led teachers to have substantial conversations with one another about what they teach, when they teach it, and what they want students to learn. LASW in the context of open response items on the state assessment has begun to direct teachers' attention to the content they teach as well as to what students need to understand about formulating answers to such test items. The implementation of STEPs, more generally, has focused attention on using data to make schoolwide decisions about what to emphasize so that students can achieve at higher levels. The more directed work of Clark Fellows and School Support Resource Teachers has led to greater attention to teaching and learning in some of the schools we visit. The work represented by these efforts should have a positive impact on students' opportunities to learn and, therefore, to their achievement.

We describe next several areas of reform that we think need further attention if the district is to continue its movement toward standards-based reform and high student achievement.

- The district's approach to rolling-out standards-based reform has had a limited impact. As we said at the start of this report, we think the roll-out strategy has provided teachers and principals and even central office personnel with an insufficient opportunity to fully understand a) the complexity of the components of standards-based reform and how they are linked to one another, and b) the implications of standards-based reform for teaching and learning. Teachers and principals have not been engaged in professional development that was sufficiently deep, well-articulated, or sustained to enable them to understand and then use the reform. It is incumbent upon the district to consider what it has tried to date, where it has been strong or weak, and, therefore, what has to happen next to better lay the foundation for this important reform agenda.

- We know that the district plans to move ahead with the development of performance tasks and provide examples of student work that meet the standards at different levels of achievement. Such tasks might be used by teachers across the district. While there can be great benefit in developing and using such tasks, we want to raise a note of caution. When teachers and principals do not comprehend the underlying conceptions of standards-based reform, they may be unable to grasp the principle behind the particular tasks that are developed. If this is so, they will be unable to develop other performance tasks that should be embedded as assessments within their ongoing work. We think that the goal of developing performance tasks should be two-fold at least. First, their development can provide examples of tasks that will assess whether students are meeting standards at some agreed-upon benchmark point. Second, their development can enable teachers to understand the kind of assessments they should be using to determine the quality of students' learning so that they can develop such tasks on their own, with department colleagues or with team partners. It will be crucial to insure that the tasks the district creates do not over-specify the details or structure of the work students are to produce which would sacrifice any hope of student creativity. The performance tasks must be accompanied by rubrics that address quality without reducing it to a set of trivial components.

- The strategy of training principals and teachers on each school's leadership team to provide school-based professional development has a lot to recommend it in theory. In practice, the amount of training provided to these individuals does not prepare them for the work that needs to be done. As a result, in our view, the professional development they provide at their schools is often quite weak. If principals and teacher leaders are going to take a significant role in school-based professional development, they need ongoing support and additional training as they try out their new roles. Without this, they are unlikely to be able to significantly advance the work of standards-based reform. We have seen considerable variation in principals' and teachers' capacity to do school-based professional development. In one school, where the principal is knowledgeable about instruction and has selected as cadre teachers two individuals who are also capable of leading instructional changes, we see school-based work as having an impact. We are less sure of its impact in the three other middle schools. We think the district needs to think about how to strengthen its approach to school-based professional development

- Many teachers face real challenges as they try to implement the teaching practices associated with standards-based reform. Some teachers know their content and have an array of teaching strategies that have worked in the past. However, they face real dilemmas when those practices work with some students, but not with others. They express their frustration with students who seem to be unmotivated and with their own inability to change the dynamics of classroom interactions. Such teachers work hard while their students are quite passive. Other teachers, whose practice we did not describe in this update report, have kept using their traditional, teacher directed routines and have made no move toward enlarging their repertoire of skills. All of these teachers need support to help them provide students with better opportunities to learn. Finally, as we described, some teachers know and use teaching practices supported by standards-based reform. Such teachers might be a useful resource if the district could figure out how to involve them in helping their colleagues adopt such strategies. Overall, we think it is time for the district to consider how to use its professional development resources to assist teachers in improving their practice so that they better provide students with opportunities to achieve at high standards.