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FOURTH-GRADE TEACHERS AND THEIR CLASSROOMS?

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What teachers know and understand about content and students shapes how judiciously they select from texts and other materials and how effectively they present material in class. Their skill in assessing their students' progress also depends upon how deeply they understand learning, and how well they can interpret students' discussions and written work. No other intervention can make the difference that a knowledgeable, skillful teacher can make in the learning process.
National Commission on Teaching and America's Future (1996, p. 8)

American schools have been directed to achieve a new standard: All children will attain thoughtful literacy proficiencies. This standard represents two challenges. First is the challenge to educate all children well. For most of the past century American schools were organized to educate only some children well (Allington, 1991). Thus, schools set different goals for different children. The traditional three-reading-group model in elementary schools and the three-track high school were the result of this differentiated education model. Second, in most schools the focus was on developing basic literacy, not thoughtful literacy. Basic literacy is, perhaps, best characterized as a read and recall, write neatly and spell accurately, model of performance. Thoughtful literacy, on the other hand, is characterized by students who can read, write, and think in the complex and critical ways needed in a post-industrial democratic society.

Stimulated by various federal initiatives, individual states have moved to create achievement benchmarks that reflect these new goals: All students attaining thoughtful literacy. Fourth grade achievement has been a popular target perhaps because it is at fourth-grade that the NAEP (National Assessment of Educational Progress) assessments and state-by-state comparisons begin. Thus, we see "fourth-grade guarantees" – all fourth-graders must attain some specified level of reading proficiency on some new state-sponsored assessment to be promoted to the fifth-grade – and considerable media attention is devoted to publicly ranking schools based on fourth-grade assessment results. Some states are even rewarding teachers whose students perform well on the chosen assessments, increasing the stakes considerably.

Most assessment pressure is focused on reading, and there is substantial variation among states in how performance is assessed. Some state assessments focus quite narrowly while others attempt to provide a broader picture. However, Bob Linn (2000) captured the current state of affairs quite well when he noted that, "I am led to conclude that in most cases the instruments and technology have not been up to the demands that have been placed on them by high-stakes accountability" (p. 14).

Nonetheless, in most American elementary schools these days, fourth grade is the high-stakes teaching assignment, and fourth grade has long been considered a critical point in the elementary school experience. Chall (1983) wrote of the "fourth-grade hump" – the point at which some children who had been previously successful begin to experience difficulties. With today's high-stakes assessments focused on fourth grade, the "hump" has become a mountain for some children even without the increased expectation for a more thoughtful literacy.

But with all the recent attention focused on fourth grade, there has been relatively little research on the nature of instruction in fourth-grade classrooms. While a number of such studies of primary-grade classrooms have been reported in recent years, only a scant few studies of fourth grade (or third grade or fifth grade) have appeared, and these have typically been small and local (e.g., Sosniak & Stodolsky, 1993; Pressley, Wharton-McDonald, Mistretta-Hampston & Echevarria, 1998).

Because effective classroom instruction has been identified as the critical variable for fostering student achievement (National Commission on Teaching and America's Future, 1996; Snow, Barnes, Chandler, Goodman, & Hemphill, 1991), we set out to find out more about the nature of effective fourth-grade classroom instruction.

A Review of Research on Effective Fourth-Grade Teaching

Our work was guided, in part, by the small body of studies of upper-elementary grade classrooms and especially by the few studies of exemplary teachers available in the literature. We were less interested in the studies that compared different curricula and more interested in studies that attempted to delve into the complicated arena of good teaching. We agree with Duffy and Hoffman (1999) who argue that it is time to end the research design that pits one teaching

method against another. Such studies perpetuate the myth that it is particular instructional programs that matter even though 50 years of research on classroom teaching indicates it is how teachers implement and adapt particular methods and materials that sits at the core of instructional effectiveness. Duffy and Hoffman argue that researchers should be focused on developing better understandings of the complexity of classroom life, teacher expertise and decision making, teacher development across the career span, and, particularly, how more effective teachers manage to adjust instruction to meet the needs of individual students. We took this call seriously.

To provide background for our research, we begin with a review of studies of effective upper elementary grade teaching. Methodologically, these studies fall into three broad categories: Observational studies, interview studies, and survey research. Some studies combined methods, but typically one research methodology provided the principal data for each study.

Observational studies. The handful of observational studies of upper-elementary grade teaching support the assertion that instructional programs are relatively less important than the nature of the teacher and the teaching that children encounter. Sosniak and Stodolsky (1993), for instance, studied four fourth-grade teachers in two schools in the same urban school district. While each teacher worked with similar curriculum materials and operated under common achievement expectations, the researchers found that these teachers didn't teach "by the book" as is often suggested in the literature. Indeed, for each teacher the role of text varied from subject to subject. One teacher made heavy use of a basal reader during reading (88 percent of the time) but made little use of the social studies textbook (17 percent of the time). Another teacher relied less on the reading basal (31 percent) but more heavily on the social studies basal (90 percent). Similarly, recitation as a reading activity ranged from 8 to 58 percent of the time; reading workbook use, from 8 to 34 percent of time. These teachers were in the same district, teaching at the same grade level, with the same materials.

Differences in teaching practice can, of course, translate into more and less student achievement. Over a two-year period Snow and her colleagues (1991) observed second- and fourth-grade teachers who differed in effectiveness. The more effective teachers were characterized as:

- providing explicit instruction,
- using classroom routines,

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- challenging and involving students,
- creating a supportive, encouraging, and friendly classroom climate,
- engaging in lots of constructive teacher-student exchanges,
- offering a variety of reading materials,
- scheduling frequent library visits,
- crafting stimulating curricular activities,
- asking many inferential questions, and
- displaying student work prominently.

These effective teachers produced dramatically superior student achievement, with placement in effective classrooms for consecutive years producing high achievement levels among all students. Variety in the materials used and the instructional methods observed was noted, as was variety in classroom organizational plans (from open classrooms to traditional three-group organization).

Rather than particular programs and materials producing better achievement, then, these studies argue for a range of productive practices with common themes. In line with this, Knapp (1995) reports on a two-year study of elementary classrooms in three states. The classrooms differed in instructional emphasis and student achievement. Achievement in the "meaning-emphasis" classrooms was superior to that attained by students in "skills-emphasis" classrooms. The higher achieving classrooms were characterized by:

- maximized opportunity to read,
- integrated reading and writing with other subject areas,
- a focus on meaning and the means of constructing meaning, and
- opportunities to discuss what was read.

In addition, Knapp noted, "The choice of textbooks by school or district does little by itself to make up for teachers' lack of experience with the approach contained in the textbook" (p. 174).

Consistent with these findings, researchers who observed teachers nominated as effective or exemplary report that the use of curriculum materials and instructional methods varied widely. For instance, Pressley and his colleagues (1998) found significant differences in the 10 fourth- and fifth-grade classrooms they studied in terms of the materials and methods for teaching

reading and writing. Some teachers elected to use a basal reading series, others used tradebooks in theme-oriented curriculum units, still others employed a reading/writing workshop model. Homework differed in emphasis from exploring engaging content to exercises on surface features of written text. Writing tasks differed quite substantially both in breadth of genres and length of pieces written. Quantity of book reading differed, as did breadth of reading. In short, instructional programs per se did not explain why these teachers were effective.

In these observational studies, variation in materials use and instructional program was characteristic of the observed effective classrooms regardless of how teacher effectiveness was determined (e.g., nomination, post hoc analyses of achievement). Each research team concluded that, while common themes could be identified, variation in specific materials and methods was a characteristic of upper elementary teaching, even effective teaching.

Interview studies. Some researchers have used interviews to look more broadly at the nature of effective elementary teaching, including teaching in the upper elementary grades. Ruddell (1997), for instance, summarizes his work on "influential" teachers – teachers nominated by former students as having an enormous positive influence on their development. He reports that his interviews, surveys, and classroom observations portray these 95 teachers as:

- using clearly formulated instructional strategies that provide opportunities for monitoring and providing feedback to students,
- having in-depth knowledge of reading and writing processes and how to teach them,
- frequently using internal motivation, and
- sparingly using external motivation.

Ruddell also documented common personal characteristics of these influential teachers, including that they were:

- warm, caring, flexible;
- sensitive to individual needs and motivations;
- enthusiastic about teaching,
- concerned for students as persons, attentive to students' academic and personal problems.

In addition, they

- placed high demands/expectations;

- created intellectual excitement, considered alternative points of view;
- made instruction personally relevant; and
- emphasized logical and strategy-oriented instruction, clear writing, critical thinking.

These teachers ranked establishing trust through personal contacts with students as a most important characteristic of their teaching. Again, no particular instructional programs characterized influential teaching.

Some of the characteristics documented by Ruddell are clearly beliefs and theories about teaching and learning. Other researchers have also documented such features. For example, Thomas and Barksdale-Ladd (1995) interviewed and then observed nine classroom teachers (grades 1-5) who were nominated as effective/outstanding. Their analyses found nine common beliefs that included:

- Children learn to read and write by reading and writing.
- All children can learn to read and write.
- Modeling is the best way to teach literacy.
- Reading and writing are closely related, cannot be separated instructionally.
- Children learn from other children in cooperative environments.
- Print-rich environments are necessary for children to learn literacy.
- Children need daily shared reading, independent reading, guided reading.
- Observing students is the only way to know who needs what teaching.
- Ownership is part of learning, choice leads to ownership.

Each of these teachers planned their instruction based on observation of students. All had student portfolios, all engaged students in individual conferences on a regular basis, all had well-developed parent involvement programs, all integrated reading and writing with content area instruction, and all were readers themselves. As with the other studies, a lack of reliance on particular instructional programs characterized these teachers. They were more student oriented than curriculum oriented.

Haberman (1995) reports on a longitudinal study of effective urban teachers (Star Teachers) and provides a set of 14 characteristics that distinguished the more effective teachers from those who were less effective. The first seven characteristics were documented in interviews over a 35-year period; the second seven are based on observation. The characteristics are:

1. *Persistence*. The Star teachers believe that it is their responsibility to "find ways of engaging all their students in learning activities . . . They persist in trying to meet the individual needs of the problem student, the talented, the handicapped, the frequently neglected student . . . persistence is reflected in an endless search for what works best with each student . . . teaching can never be 'good enough' since everyone should have learned more in any activity. . . . The basic stance of these teachers is never to give up trying to find a better way of doing things" (p. 779).

2. *Protecting learners and learning*. Star teachers usually have a hobby or some other lifelong learning activity (e.g., opera, philately, Save the Wolves, computers) that they often bring to the classroom. This engagement in continually learning seems to be a prerequisite for stimulating learning in others. However, it also leads these teachers to open up the curriculum to more engaging possibilities, which "frequently brings them into noncompliance with the extremely thick bureaucracies of urban schools" (p. 779). When challenged by the principal about such nontraditional activities, they negotiate because "they see protecting and enhancing students' involvement in learning activities as their highest priority" (p. 779). These teachers focus on finding ways to engage students is a primary contrast with less effective teachers who focus on "covering the curriculum."

3. *Application of generalizations*. Star teachers have a sense of the big picture of their teaching – the long-term goals and their relationship with day-to-day practice.

4. *Approach to 'at-risk' students*. Haberman highlights this as the most powerful factor in distinguishing Star teachers from others. While Stars may cite poverty, violence, drugs and other factors as components in low-achievement, they also cite irrelevant curricula, poor teaching, and bureaucratic schools as causes. "Star teachers believe that, regardless of life conditions their students face, they as teachers bear a primary responsibility for sparking their students' desire to learn" (p. 780).

5. *Professional versus personal orientation to students*. Star teachers expect to find kids in their rooms whom they cannot love and kids who will not love them. But they also expect to be able to teach these kids. "They use terms such as caring, respect, and concern, and they enjoy the love and affection of students when it occurs naturally. But they do not regard it as a prerequisite for learning. . . . Genuine respect is the best way to describe the feeling Star teachers have for their students" (p. 780).

6. *Burnout: Its causes and cures*.   Star teachers learn how to protect themselves from mindless, interfering bureaucracies. They learn the minimum requirements for functioning in the system and how "to gain the widest discretion for themselves and their students without incurring the wrath of the system . . . they set up networks of like-minded teachers, or they teach in teams, or they simply find kindred spirits. They use these support systems as sources of emotional sustenance" (p. 780).

7. *Fallibility*. Star teachers see mistakes and failure as an inevitable part of learning, theirs and their students'.

8. *Teaching style*. They have a predisposition to "coach" rather than engage in "directive teaching."

9. *Explanations of success*. Predisposition to emphasize student effort over ability.

10. *Organizational ability*. A predisposition and ability to engage in planning and gathering materials.

11. *Emotional stamina*. Ability to persist in face of violence, death, and other crises.

12. *Basis of rapport*. An approach to student involvement. Creating a classroom that is "their" classroom or "our" classroom, not "my" classroom.

13. *Readiness*. They expect a range of differences in students rather than that all students should be at the same point.

14. *Physical stamina*. Teaching is hard work.

Expanding to a more general model for teachers and other helping and human service professionals, Spencer and Spencer (1993) report a large-scale study of professional effectiveness with findings compatible with Haberman. They employed the Behavioral Events Interview (BEI) to develop a "grounded theory" of job competencies by working backwards from the criterion of superior performance "to identify the characteristics of people who perform at these levels" (p. 135). Their "generic model" included the 14 competencies listed below, in descending order of importance.

1. *Impact and influence*. These people tailor their presentation and language to the audience, establish credibility, and use individual influence strategies including humor, body language, and voice.

2. *Developing others*. They believe in students' potential and use innovative teaching methods to respond flexibly to individual needs, particularly "allowing students to use individualized ways to learn or to meet requirements" (p. 189).

3. *Interpersonal understanding*. These teachers take time to listen, so that they are aware of students' moods and feelings, their background, interests, and needs.

4. *Self-confidence*. These teachers have confidence in their own abilities and judgments while taking responsibility for problems and failings. They are prepared to question and give suggestions to superiors.

5. *Self-control*. Stress-resistance and stamina are characteristic of these teachers. They keep their own emotions from interfering with work.

6. *Accurate self-assessment, learning from their mistakes, genuinely liking people and having positive expectations of others*. The best teachers display "intrinsic enjoyment of their work and a strong commitment to the process of learning and to the mission of their school" (p. 191).

7. *Professional expertise*. These teachers expand and use their professional knowledge.

8. *Customer service orientation*. They probe "to discover the student's underlying needs and match available or customized services to that need" (p. 193).

9. *Teamwork and cooperation*. Excellent teachers solicit input from their students, give credit to and cooperate with others. They have a "concern to help children and their desire to develop their own skills led teachers into mutually beneficial dialogue with other professionals" (p. 194).

10. *Analytical thinking*. These teachers make inferences, see causal relationships, and systematically analyze complex problems. In particular, these teachers "thought about the connections in the subject matter and how to get them across to students" (p. 195).

11. *Conceptual thinking*. Also important was the ability to recognize patterns and diagnose situations. They "make connections between course work and their students' lives and to make complex material clear and vivid" (p. 195).

12. *Flexibility*. These teachers adapt their style and strategies to fit the circumstances. Indeed, the authors argue that "flexibility was critical for teachers . . ." (p. 196).

13. *Initiative.* Going beyond the basic job requirements and "tackling problems before they become urgent or inescapable" (p. 196).

14. *Directiveness/Assertiveness*. These teachers set limits, confront problem behavior, and say no when necessary. At the same time, "the best teachers have established boundaries so well that they don't focus on directiveness" (p. 196).

Again, as with the other studies, particular programs and materials are not mentioned in this list of characteristics. Instead, beliefs, attitudes, and interpersonal skills of effective teachers dominate the interview studies.

Survey studies. Other researchers have employed paper and pencil surveys to study effective upper elementary teaching. For instance, in their survey of a national sample of fifth-grade teachers nominated as effective Pressley, Yokoi, Rankin, Wharton-McDonald, and Mistretta (1996) found extensive reading and writing as the central theme in their instruction. Respondents reported using diverse grouping patterns; teaching both higher-order and lower-level skills, often directly; using diverse curriculum materials and assessment tools; and integrating literacy and content-area instruction as central features of their instruction. Again, however, no pattern of particular programs or materials was found to characterize the teaching in these upper elementary classrooms. In fact, Pressley et al. (1996) note that upper-elementary classrooms seem more diverse on many curricular and instructional dimensions than primary-grade classrooms.

Summary. Taken together these various studies of (or including) effective upper elementary grade teachers produce a dizzying array of features that might characterize good fourth-grade teachers and their teaching. Because different researchers used different research methods and because they employed different lenses to study good teaching, the breadth of characteristics identified seems unsurprising. Each list contains a mixture of constructs – beliefs, behaviors, and propensities. A summary list with some loss of detail might look something like Figure 1. While a valuable start, such an uneven list is hard to capitalize on. First, each study uses different constructs and lists an array of constructs of different orders. Second, given current sociocultural understandings of learning, we find it odd that so little attention is given in the constructs to classroom language. As Wilkinson and Silliman (2000) point out, "the language used by teachers and students determines what is learned and how learning takes place . . . [and] exerts a profound effect on students' development of language and literacy skills" (p. 337). Third, we are inclined to ask, as does Lampert (1985) how exemplary teachers manage to teach, using "manage" in the

Figure 1: Summary of features associated with exemplary teachers.

PERSONAL CHARACTERISTICS	STUDY
Emotional and physical stamina, stress resistance, persistence, and self-control	H, SS
Warm, caring, flexible, concern for individuals as well as academics	R
Supportive, encouraging, and friendly	S, SS
Has interests and hobbies – and assume others do	H
Enthusiastic, enjoys work	H, SS
Genuinely likes people and has positive expectations of them	SS
A sense of agency (also confidence) – the feeling that what one does makes a difference	H
ACCURATE SELF-ASSESSMENT	SS
EXPANDS PROFESSIONAL EXPERTISE	SS, R
BELIEFS AND EXPECTATIONS	
Expects diversity and expects to manage it	H
All children can learn to read and write. Children's potential	T, SS
Learning is social	T
Ownership is necessary for learning (needs choice)	T
Error is a place to learn	H, SS
Modeling is important	T
Respect and trust	H, R
INSTRUCTIONAL PRACTICE	
Organized and planful	H, R
Established classroom routines; behavior, movement, lessons	S
Diverse instructional groupings	P
Arranges for student ownership	H, R
Learn to read and write by reading and writing a lot	K, S, P
Integrates reading, writing, and subjects	K, T, P
Daily guided, shared and independent	T
Listen and observe to adapt instruction	T, SS
High demands, but sensitive to individual needs and motivations – challenges and involves	R, S
Flexible response to individual needs and interests	SS, H
Instruction is personally relevant, activities are stimulating	R, S
Explicit instruction, particularly of strategies	S, P
Display student work along with much other print	T, S
INSTRUCTIONAL TALK	
Many constructive teacher-student exchanges	S
Discussion	K
Collaborative learning	T
Emphasizes strategic and critical thinking	R

Key: H = Haberman (1995); K = Knapp (1995); P = Pressley et al (1996); R = Ruddell (1997); S = Snow et al (1991); SS = Spencer & Spencer (1993); T = Thomas & Barksdale-Ladd (1995).

sense that "a manager is one who is able to find a way to do something and that action and invention are fused together in the management process" (p. 193). The crucial question then becomes, of course, what the "something" is that they are trying to do – what conception of literacy teaching and learning guides these teachers' practice? – a question not answered in these studies.

An additional concern, however, is that some of the constructs introduced by these studies are of little practical help. For example, it was often reported in these studies that a characteristic of effective teachers' classrooms is that their students spend a lot of time engaged (Pressley et al., in press). While intuitively consistent with other descriptors, such constructs are of little help to novice teachers, or those who work with them. By contrast, it might be of use to know that effective teachers focus attention on meaning and its construction, and that part of doing so involves integrating reading, writing, and subject areas. Similarly, if we foreground the personality characteristics of effective teachers, then improving teaching becomes principally a matter of selecting teachers with "the right stuff" – perhaps useful at hiring time, but otherwise of limited value.

Our Study of Exemplary Fourth-Grade Teachers

Thus, we set out to contribute to a better understanding of effective fourth-grade literacy instruction, with an eye to ultimately passing on these teachers' competence to other teachers. We were concerned that most previous studies gathered information on teachers and their classrooms in limited geographic regions. State educational contexts vary on many dimensions. For example, some states sponsor textbook adoptions and others do not; some states test basic skills and others test a more thoughtful literacy. Some states have limited their investments in teacher professional development, and others have focused their efforts in this area. We wanted to capitalize on the specificity of case studies while exploring the generality across diverse circumstances.

Consequently, our study involved classroom observations of and interviews with 30 fourth-grade teachers in 24 schools in 5 states (CA, NH, NJ, NY, TX). The teachers were identified as exemplary through a snowball nomination process. The schools were located in a variety of

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communities (rural, suburban, small city, large city). They ranged in size from a few small schools with enrollments of approximately 300 students to larger schools with enrollments of 800-1000 students. Most schools enrolled between 400 and 600 students. In more than half of the schools, minority students represented at least 25 percent of the student body, and in a third of the schools minority students represented more than half of the student body. The schools served substantial numbers of children from lower-income families. In two-thirds of the schools, more than one of five students received a free or reduced-price meal. In a quarter of the schools, more than seven of every ten children qualified for such meals.

We observed in each teacher's classroom for at least 10 full days, composing field notes that attempted to capture both the structure of classroom activity (time allocated, groupings, movement, etc.) and the essence of the language environment (who talks, nature of talk, content of talk, etc.). Audio and video recordings of classroom activities allowed closer analysis of some lessons. Additional data were gathered a) in two semi-structured interviews with each teacher, b) in interviews with target children from each classroom, c) in the form samples of student writing and reading logs provided by children, and, finally, d) in end-of-year achievement test performance.

We conducted a post hoc analysis of achievement test gains in the subset of classrooms where both third- and fourth-grade student achievement data were available. Not surprisingly, that analysis showed that student achievement gains outpaced expected levels of growth (Allington et al., in prep). These teachers nominated as effective did produce greater than expected levels of literacy growth. However, as we point out below, that is not the only indicator of quality instruction and achievement (Battistich, Watson, Solomon, Lewis, & Schaps, 1999; Johnston, 1999; Johnston, Woodside-Jiron, & Day, 2000). Our analyses of the various data have been published in a variety of sources, and analyses are continuing.

Individual case studies were prepared for 7 of these exemplary teachers, 2 from NY and CA and a single teacher from the other 3 states. These teachers represented a range in years of teaching experience (5 to 25), gender, and ethnicity. Their classrooms represented a range of class sizes (19-33), ethnic mixes of students, student poverty levels (10%-85%), organization – from self-contained to departmentalized, from single grade to multi-grade – and were located in various community types (urban core, urban fringe, small city, suburban, and rural town). In

short, the case study teachers worked with a variety of students in communities that varied in substantial ways.

Our contrastive case analysis (Allington et al., in prep.) provided some common features of instruction, which we now briefly describe. Subsequently, we will connect our analysis with previous analyses.

The nature of classroom talk. Perhaps the most important features of these classrooms lies in the nature of classroom talk. The observers routinely noted that students in these classrooms talked much more than has been previously reported in the research literature, particularly public talk to each other (e.g. Cazden, 1988; Dillon, 1988; Mehan, 1979; Nystrand et al., 1997). The talk was described as respectful, supportive and productive and was not only modeled by the teacher in interactions with students, but also deliberately taught, and expected. Creating these conversational communities was the focus of lessons across the year but especially at the beginning of the year, and required building trusting relationships.

Talk between teacher and student was personalized and personal. These teachers used conversation – real conversation – to learn about students. And teachers encouraged students to engage each other's ideas – authority was more distributed than centralized. While Knapp (1995) noted that discussion was a central feature of the high-achievement classrooms he studied, in our sample of teachers we also noted that classroom discussions included a considerable amount of "tentative" talk, which made it possible for others to complete incomplete ideas, or otherwise contribute to the group thinking. However, such conversations clearly involved an element of trust and a non-judgmental context. It is probably no coincidence that Ruddell's (1997) teachers ranked establishing trust through personal contact with students as particularly important.

We observed that rarely were "No" or "Wrong" uttered by the teachers except in response to gross social transgressions. Rather, they found what was productive about a response or behavior, supported the partially correct, turned attention to the process, and encouraged further thinking or reflection, even about a "correct" answer. The teachers admitted their limited knowledge of various topics, notably those raised by their students, their mistakes, and their own interests. These practices simultaneously seemed to have the effect of making the teachers "real," making personal interests acceptable and thus distributing authority, making error a source of learning about self-correction and strategy refinement, and making space for real dialogue. As with Haberman's successful teachers, those in our sample demonstrated the limits of their own

knowledge and expertise – their fallibility. The routine demonstrations of how literate people think as they read and write – including errors and self-corrections – made their own and their students' thinking available as models and for discussion.

This talk also made genuine inquiry possible, indeed, common, and inquiry processes a normal topic of conversation, such as "How could we find that out?" The emphasis was clearly on making meaning and the means for doing so. Normalizing conversations about the process of making meaning and accomplishing meaningful ends also meant that there was constant modeling and articulation of strategies by both teacher and students. Furthermore, when students identified the process they used for solving problems, they located themselves in a position of agency with respect to learning. Several of the teachers actively encouraged students to build identities around this agency with comments of the sort, "As writers, how can you solve this problem?" (Ivey, Johnston, & Cronin, 1998). Instruction was largely conversational.

The curriculum materials. The instruction was multi-sourced. Although many teachers did often dip into textbooks in science, social studies and reading, they hardly ever followed the traditional plan for these materials. These teachers were more inclined to fill students' days with reading and writing beyond the textbooks. For instance, they used historical fiction, biography, and informational books in social studies and they drew reading materials from, or had their students locate them on, the Internet, in magazines, and in other nontraditional curriculum sources. This approach allowed students to more often work in materials of appropriate complexity, which seemed central to the high levels of engagement in academic work that we observed. It also made possible a sense of ownership of the topic and the personalization of instruction. Sometimes curriculum materials came from projects such as fundraising and planning for a class trip, or running a class business. In other words, relevance and meaning were an important part of curriculum materials.

Language itself was a curriculum topic of meaningful study in the materials teachers read to students, the materials students read themselves and the texts the students composed. Even word study (a standard feature of the fourth-grade curriculum) emphasized a search for meaningful patterns, meaning acquisition, interest in words and turns of a phrase, and the strategic, purposeful selection of words.

A strong literary emphasis pervaded these classrooms – use of tradebooks in content area activities, to model thinking and composing strategies as well as to promote a "just reading"

framework. The work was often situated in an awareness of state or district standards but not driven by them. Student interests were commonly the driving force, accommodated by a flexible sense of the required curriculum.

The organization of instruction. These exemplary teachers were very planful but, at the same time, prepared to depart from and revise plans to capitalize on the "teaching moment." Indeed, we might think of them as planful opportunists, since their plans tended to open instructional opportunities on which to capitalize. In their planning, these teachers seemed to seek learner engagement first and situated their concern for accuracy somewhere lower on the agenda. Their instruction was a sort of problem-setting, although that often involved problem clarification with students, and even student problem-setting. While the instruction was not "individualized" in the traditional sense, it was "personalized" in that these teachers knew their students' interests and needs, strengths and weaknesses.

We observed much use of managed choice in these classrooms. Thus, while students did not exercise full control over the instructional decisions, these teachers strategically arranged for students to have choices, and to make them productively, or learn from their errors. As Turner (1995) demonstrated, choice, along with the use of "open" tasks – tasks that provide the opportunity for multiple "correct" answers and multiple routes for demonstrating knowledge and skill acquisition – are clearly linked to the high levels of engagement we observed.

There was constant instruction taking place in these classrooms though the teachers were only occasionally in front of the class, a finding recently also reported by Taylor, et al (in press). That is, we more often observed these teachers working alongside students, individually and in small groups, than working from the front of the room. Yet each teacher used the range of interactional formats. However, a great deal of instruction was done not by the teacher but by the students, who had learned to consult one another and to make their thinking available to one another. Collaborative learning was common, and students were not only learning how to learn, but how to teach, and how to interact in ways that made for mutual learning. Students were expected to manage group work, and where it broke down, the problem was dealt with not as misbehavior, but as an important interactional problem to be strategically solved.

Tailored, collaborative, meaningful problem solving work dominated the instructional day. The teachers focused on developing students' personal responsibility for learning with a focus on choice, goal setting, and collaborative independence. Working together was valued and viewed

as developing important learning skills. Much of the work was longer-term in nature – assignments that lasted for a week or more – rather than a series of small tasks to be completed each day. Integration across subjects, time, and topics was common, rather than a compartmentalized curriculum. For example, often we found it difficult to decide whether the classroom focus was science or language arts.

The nature of evaluation. These teachers evaluated student work based more on improvement, progress, and effort than on the achievement of a single a priori standard. This emphasis produced an instructional environment in which all students worked hard – unlike many classrooms where effort and improvement are not heavily weighted in evaluation. The evaluations were personalized as these teachers attended to individual student development and goals. The evaluations were often holistic – rubrics designed for teachers were adapted for student use – and focused on complex achievements – thinking like a biographer, for instance. We observed many examples of performance assessment and routinely observed these teachers providing focused feedback, often leading the student to the evaluation target rather than spelling it out for students. Self-evaluation was also widely encouraged and shaped.

How Our Study Fits with Previous Studies

There is a substantial convergence between previous studies and our own study. Indeed, there are few items on the combined list (Figure 1) that we did not find to be important one way or another. There are, of course, some changes in the center of gravity of the constructs, but the collective studies are clearly not at odds with one another. There are spaces for negotiation on the nature of the constructs. For example, unlike other studies, Snow and her colleagues (1991) foreground "explicit instruction." Our observations fit more with Haberman's (1995) and Taylor, et al.'s (in press) analyses, which use the construct "coaching" as opposed to "directive teaching." It was not that these teachers were explicit all the time about everything, but rather explicit where they needed to be explicit, with whom they needed to be explicit, and in the context of ongoing literate engagement. Indeed, part of what we found impressive is this very ability to know when to be explicit, which entails knowing roughly what students know, what they need to know at a particular point, and what they can figure out for themselves. The

difference is important because if a teacher does all of the knowledge delivery, or is overly "directive," then students do not get to be independent or in control of their knowledge construction.

Similarly, although Spencer and Spencer (1993) argue that exemplary teachers are comfortable saying no, they also point out that such teachers set boundaries so well that they don't have to spend their time telling students what not to do. We would add that, in our research, the "saying no" is not much used for academic matters, but might be used for serious social transgressions. However, mostly these teachers turn those few transgression we observed back into opportunities for learning rather than for correction.

Not only do the studies have considerable commonality, but it is also not hard to see that some of the constructs hang together quite well in clusters – given some items, one would expect other items. There are doubtless reasons for this. For example, when arriving at these constructs, personal characteristics have been inferred from teachers' behaviors. Caring is likely to be inferred from teachers' personal attention to, and flexible accommodation of, students' interests, needs and concerns. It might also be inferred from supportive, encouraging and friendly, rather than judgmental, verbal interactions. Students, too, probably infer these characteristics from similar indicators.

These clusters of practices, beliefs, expectations, and personal characteristics are important to consider. It is these that might ultimately give us leads on a more unified structure. For example, a teacher who genuinely likes children is likely to be interested in their experiences, is unlikely to be judgmental, and is likely to view error as an opportunity for learning rather than for correction. Similarly, Spencer and Spencer's (1993) report that effective teachers tailor presentations to their audience and have flexible responses to individual interests and needs, implies that these teachers have listened to, observed and assessed the students, each of which is an additional descriptor they report. Other researchers also point out that these teachers are sensitive to, and accommodate, individuals' interests, needs and motivations, which is possibly why their classrooms are reported to have a wide range of difficulty of materials – and high engagement. Furthermore, it may be the careful listening and observation that makes it possible for these teachers to successfully challenge their students (often reported as "having high expectations") in ways that students are likely to pick up the challenge and meet it. At the same time, the "engrossment" of these teachers in learning about each student has been emphasized by

Noddings (1984) and others (Goldstein, 1999; Tappan, 1998) as a central part of both a caring relationship and the nurturing of productive relationship development.

Consider another potential cluster. In each of the studies we reviewed there is a focus on making meaning and the means of doing so. Cantrell (1999) also reports that more meaning-centered third grade teachers produced students who were more successful on a range of measures of reading and writing. Teachers engage children in discussion, ask inferential questions (which can lead to discussion), integrate subjects with one another and with children's experience, making instruction personally relevant – in other words, meaningful. In the process these practices probably go a long way toward establishing trust and respect in the classroom. Doubtless it goes the other way too, in that listening to students' discussion and experiences requires a measure of respect in the first place.

Such theoretically consistent clusters of descriptors are exactly what we seek in our research efforts – constructs that are coherent but at the same time practical. They provide the focusing intention, the stance, and the means for improving instruction. In our efforts to study these clusters of beliefs, values, and practices, we have examined teachers' epistemologies (Johnston et al., 2000). We have reason to believe that the position called constructed knowing (Belenky et al., 1986) provides a framework that integrates a great many of the characteristics and practices of these exemplary teachers. Indeed, in Belenky and colleagues' terms, this represents a more advanced intellectual position than received knowing. While in the long run this particular framework might not survive empirically, integrative frameworks like it are important to seek for two reasons. First, teachers respond to students primarily automatically – from their internal frameworks. Second, if we are to make use of what we learn from exemplary teachers, coherent frameworks are more addressable than dozens of independent characteristics and behaviors.

Expanding our Conception and Indicators of "Exemplary"

Our analyses of student achievement data show that exemplary teachers produce superior educational gains as measured on standardized achievement tests – not the most sensitive measures of complex achievement (Johnston, 1992; Linn, 2000). But when people nominated these teachers as exemplary, they were not simply interested in test scores. They were

nominating people in whose classroom they would place their own children. So we also looked beyond the scores to what else these teachers contribute to children's literate development, exploring the implications of Vygotsky's dictum that children grow into the intellectual environment around them.

Our analyses point to the sorts of achievement these teachers produced that is beyond the most sophisticated standardized tests. The "thoughtful literacy" instruction we observed produced students who independently engaged in complex literate conversations – evidence of an internalization of the thinking that was normalized as conversation in these classrooms. This kind of literate development is far from trivial, or even "icing on the cake," particularly in fourth grade. Stipek, de la Sota, and Weishaupt (1999) point out that: "even if basic skills acquisition is educators' exclusive goal . . . powerful developments in preadolescents can interfere with learning, [and] . . . cannot be ignored" (p. 433). Failing to address matters of broader intellectual and social development until adolescence, they argue, may be too late. They propose weaving into classroom activities practices that influence children's social development. Although they describe these competencies as "non-academic," others have pointed out that the sought after competencies and associated relationships and propensities cannot be separated from literate development. Indeed, the discursive environment of the classroom has powerful effects on literate relationships, identities, and epistemologies (Gee, 1996; Johnston et al., 2000; Johnston, Layden & Powers, 1999).

For us, the idea of exemplary teaching in fourth grade is fundamentally attached to questions of what we think teachers are supposed to be accomplishing. If, for example, we want them to create children who possess stacks of knowledge and skills, that is one thing. If we want them to create competent, caring, independent learners with self-extending learning systems, as well as a robust knowledge base, that is another. Teachers approach these different constructions of their practice differently and children's voices, epistemologies and relationships reflect their socialized experience (Allington, et al., in prep; Johnston et al., 2000).

There are many important questions yet to ask. Why, for example, would it be significant that these teachers see fallibility as a normal and important part of teaching and learning (Haberman, 1995)? Is this merely another item on a list, or is it part of a larger conceptual frame? Why is the curriculum multi-sourced and multi-leveled? Why is so much of classroom activity characterized by the use of open tasks and student choice among assignment options? Are these separate items

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on a list of characteristics or a reliable cluster of instructional dimensions linked to student engagement and achievement (Guthrie et al., 1996)? We believe, however, that the study of expert teaching has much to recommend it as a strategy for better understanding the effective teaching of reading and the development of teachers who teach expertly and effectively.

The various studies of effective upper-elementary teachers we have discussed each offer important glimpses of expert and effective teaching in these grades. There is certainly convergence among the studies, although the convergence is considerably greater when conclusions are summarized conceptually, rather than item-by-item. Indeed, it is our view that future research will gain most leverage by seeking conceptual coherence in instructional analyses, invoking constructs such as those we have begun to develop in our analysis. We also believe that studies of exemplary teaching need to look particularly carefully at classroom talk, its sources, and implications. Finally, it is essential that studies of exemplary teaching not be satisfied with narrow notions of educational achievement such as those indicated by standardized test scores. Much more is being achieved, and too much is at stake.

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