Functional Literacy in a Constructivist Key:
A Nontraditional Student Teacher's Apprenticeship in a Rural Elementary School

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What I have to do, I have to catch everybody if they start to go over the cliffó I mean if theyíre running and they donít look where theyíre going I have to come out from somewhere and catch them. Thatís all Iíd do all day. Iíd just be the catcher in the rye and all.

ó Holden Caulfield, narrator, *The Catcher in the Rye*

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In this study we investigate the experience of Sandy, a nontraditional university undergraduate whose student teaching took place in a small, impoverished rural community in the southwestern U.S. (All names of people and places are pseudonyms.) Sandyís background was far different from that of most elementary education majors in universities, who tend to be roughly 22-25 years of age (Chin, Young, & Floyd, 2004). In contrast, Sandy had enlisted in the Marines following high school, served for several years, and gotten married twice while a soldier. After her honorable discharge she had be-

come a police officer. Her police work left her with the belief that most criminals commit offenses because they lack the literacy skills to succeed lawfully in society.

Like Holden Caulfield, she decided to catch children before they fell from the precipice, becoming an elementary school teacher and teaching children life and literacy skills through which they could become capable citizens who lead satisfying lives within the parameters of the law. In this study we focus on her student teaching experience with third graders in a community whose youngsters, living in rural poverty, were at-risk in their literacy development. To Sandy, such children were similar to those Holden hopes to save: They needed a caring intervention to enable them to understand and negotiate the terrain of their lives with competence and fluency.

That intervention was available through their education, particularly in terms of literacy tools that would enable them to participate successfully in the mainstream economy. Sandy revealed her understanding of how to teach literacy when she stated,

> These kids, they respond a lot better if they know that it has some real meaning, and itís not just for a test. . . . It has to be functional. They have to be able to use it. They have to be able to apply anything that you teach them. Yeah, it has to be some skills, but you can work skills into anything. . . . You canít just say, ìOh, write about thisî and not tie it to anything. It has to be meaningful to them.

Given Sandyís mission as a teacher, we attempt to understand what accounted for the conception of teaching that she ultimately adopted to guide her instruction during student teaching. To do so, we investigate the following question: Over the course of student teaching, within what tensions does Sandyís concept of functional literacy emerge, and how do these tensions contribute to and shape this conception? We focus in particular on her instruction in sequencing, a recurring emphasis in her teaching that was supported by both her mentor teacher and university supervisor. This concrete ability to order information, we infer, embodied Sandyís belief that students needed direction and order as part of their meaningful transactions with their worlds.

Theoretical Framework

Our theoretical perspective is grounded in a sociocultural theory of human development (see Grossman, Smagorinsky, & Valencia, 1999; Smagorinsky, Cook, & Johnson, 2003), particularly Vygotskyís views on concept development. A key influence on teachersí paths of concept development is the settings in which they learn to teach, not all of which share the same goals and related practices for learning and instruction or are consonant with a teacherís own values, which themselves are learned through prior social experience.

University programs, for instance, tend to emphasize instruction that is progressive, developmental, process-oriented, and constructivist without attend-

ing to the constraints of parental influence, state mandates, institutionalized values, standardized testing, and other factors that limit choices for teachers in schools. Teachersí development of the sort of concepts valued in universities, then, is rarely supported whole-heartedly by the institution of school. If anything, we have found, teachers often become torn between the values they begin to adopt while university students and the values they are expected to gravitate toward in particular schools.

We refer to the contexts of learning to teach as *settings*. For Sandy the key settings of learning to teach were her university program and the multiple sites of her field experiences and student teaching. Leontíev (1981; cf. Wertsch, 1985) identifies the motive of the settingóthat is, the outcome implicit in the settingó as the overarching goal toward which participants direct their activity (e.g., standardized test scores). Tulviste (1991) argues that the motives of settings develop through their inhabitantsí engagement with particular *problems* that environments provide. The problem-oriented thinking of participants in our study thus becomes a central point for our analysis.

Within any cultural setting, particular *tools* are valued. When conflicting motives are present within a setting, participants inevitably choose, are coerced to adopt, or gravitate to one set of goals over another, along with the tools most conducive to reaching those goals. Our study is thus concerned with the pedagogical tools through which Sandy carried out her instruction and worked to achieve her broader goals for her students.

Method

Data Collection

The study relied on observations and observation-based interviews with Sandy about her teaching decisions. In an interview before her student teaching, Sandy provided background information about her experiences and conceptions of teaching. During her semester of student teaching, Sandy was observed and interviewed by this studyís third author in what we called *observation cycles*. Each observation cycle consisted of a pre-observation interview, an observation of at least two classes, and a post-observation interview. Interviews were also conducted with Sandyís mentor teacher and university supervisor about the guidance they were providing for Sandy; one feedback session between Sandy and her mentor teacher was additionally recorded. Because the research was designed to focus on teachersí thinking, we did not collect data from the students (e.g., their schoolwork, interviews, and so on).

Data Analysis

The data were collaboratively read and analyzed by this articleís first two authors to identify the pedagogical tools that were emphasized in the different settings of Sandyís university program and student teaching. Each tool was coded in each of the following categories:

Name of tool used in Sandyís teaching, sorted into the following categories: constructivist teaching, formalist teaching, sequencing, and writing. (See Table 1 for specific tools within each of these categories).

Area of teaching in which the tool was emphasized, including assessment, language (primarily grammar), classroom management, reading, student diversity (particularly working with exceptional children), teaching (generally), and writing instruction.

Attribution by participant regarding where she had learned of the tool, such as administrator, colleague, cooperating teacher, curriculum materials, mandate, herself, and teacher education coursework.

Problem toward which the tool was applied, including classroom interaction, context (e.g., the state curriculum that influenced her teaching), control (i.e., behavioral issues), identity, perception of students, planning, relationships, and student learning. (See Table 1 for the full set of codes and frequencies.)

Context

Participant

Sandy is a European American woman who had grown up in a midwestern town in the U. S. with a population of under 2,000. After her sophomore year in high school, Sandy and her family moved to a nearby city (population of over 100,000 in the 2000 Census) and attended what she called an inner-city school. Sandyís family had a history of military service, and following high school she enlisted in the Marines, and then became a police officer, a career move that brought her in touch with the literacy problems affecting the offenders with whom she came in contact. This realization led her to apply to the nearby universityís elementary education program.

The University Program

Sandy attended her southwestern stateís namesake university and majored in elementary education. The Collegeís elementary education faculty accepted and imparted the tenets of Piagetian constructivism as the umbrella concept to guide their studentsí thinking about teaching. Students in the program learned to contrast the programís notion of constructivism with what their faculty termed ìtraditionalî teaching. Our study of Sandy analyzes the ways in which she appropriated constructivism in her work with third-grade students in the small rural community of Hatchville, which we describe next.

Table 1: Codes and Frequencies

CODE	Frequency
AREA	
Assessment	6
Language	6
Management	6
Reading	20
Student Diversity	5
Teaching	13
Writing	20
ATTRIBUTION	
Administrator/Chair	4
Colleague	4
Cooperating Teacher	45
Curriculum Materials	4
Mandate	8
Self	10
Teacher Education Coursework	6
TOOL	
Constructivist	
Adapting lessons to students' needs	3
Collaborative learning	4
Collaborative planning	9
Constructivist teaching	4
Integrating Instruction	16
Making Learning Relevant	3
Formalist	
Grammar	10
Teaching to standardized test	5
Traditional teaching	6
Workbook exercises	6
Sequencing	
Sequencing	13
Writing process steps	9
Writing	
Writing: Creative/Personal	11
Writing: Nonfiction	7
PROBLEM	
Classroom Interaction	4
Context	8
Control	6
Identity	3
Perception of Students	24
Planning	14
Relationships	6
Student Learning	37

Site of Student Teaching

Sandy described her home town as ìkind ofî like Hatchville, the site of her student teaching. The Hatchville School District was one of several school districts in its county, and by far the least prosperous (see Table 2). Hatchville had its own school system, which had existed as a one-room schoolhouse as early as 1893. By 1926 the district employed 2 teachers for 122 students enrolled in grades 1-6; in 1950 the district still employed 2 teachers for 81 students. Between 1960 and 1968 a river was dammed to form a lake that flooded the schoolís property, necessitating a new building for the students, who now enrolled in grades 1-8. In 1979 the district added a 9th grade class; and between 1985 and 1987, grades 10-12 were added.

From 1900-2000 the county in which Hatchville was situated grew in size from roughly 10,000 residents to over 200,000, with Hatchville being by far the smallest of the 7 cities in the county. In 2000 the elementary school (grades pre-K-5) enrolled 605 students, with the Hatchville district as a whole enrolling 1,265 students. In 2000, 57% of the countyís students were eligible for free or reduced lunch. Within Carla and Sandyís class there were 6 children diagnosed with Attention Deficit Disorder, 3 children diagnosed with dyslexia, and 2 children with cerebral palsy.

Mentor teacher Carla Brown. Sandy and her mentor teacher, Carla, developed a positive working relationship during her semester at Hatchville Elementary School. Sandy described Carlaís philosophy of teaching as ìmajor traditionalî; that is, ìShe would tend to do more stuff out of the text and work with it because sheís been doing it forever. And she knows [what] the district wants and she is constrained more by them.î Sandy said that she and Carla were responsible for teaching third-

Table 2: Demographic data from Census 2000

	Hatchville Elementary School	County	State	U.S.
Median Owner-Occupied Housing Value	$78,700	$88,500	$70,700	$119,600
% Homeowners	51%	67%	68%	66%
% Renters	49%	33%	32%	34%
Median Household Income	$32,546	$41,846	$33,400	$41,994
Per Capita Income	*	$20,114	$17,646	$21,587
% European American	73%	83.6%	76.2%	75.1%
% African American	1%	3.6%	7.6%	12.3%
% Native American	21%	4.4%	7.9%	0.9%
% Asian American	1%	2.8%	1.4%	3.6%
% Latino/a American	3%	4%	5.2%	12.5%
% in poverty	*	10.6%	14.7%	12.4%
Total revenue per student	$5,350	*	$5,415	*
Total expenditure per student	$5,917	*	$5,377	*
Eligible for free lunch	47%	*	45%	*
Eligible for reduced lunch	15%	*	12%	*

* data not available

grade objectives, which were derived from the state curriculum objectives and the Iowa Test of Basic Skills (ITBS): ìThey give you objectives from the Iowas. They take those and the [state curriculum objectives] and combine them and come up with objectives. Basically theyíre teaching to the tests.î Later, Sandy said of the ITBS and state objectives, ìSmoosh them together, and thatís your curriculum for this school.î

Carla described her class as a ìfoundational gradeî focusing on ìreading skills, writing, letter writing, increasing meaning, detail, punctuation, capitalization, making things more readable.î Carla said that she ìintegratedî this skill-oriented curriculum into studentsí efforts to access information they might need. Her instruction did not include many of the constructivist tools that were emphasized in the university. Among Sandyís tasks during student teaching was to implement aspects of a constructivist approach in this practical, skills-based system, an approach toward which she gravitated because of her fundamental motivation to save her students from unfortunate social futures.

University supervisor Michelle Garner. Sandyís university supervisor during student teaching was Michelle Garner, a doctoral student in elementary education with a specialization in science education. Michelle said that she emphasized

> sequencing in general. And I did talk to her about how we have the used the same sort of thing in science. . . . But what we really talked about was some of the difficulties students have with some of the instructions, like to explain how to use a computer; how to use a microwave. . . . They didnít know how to explain it. So we talked at length about just some of the economic realities for teaching in Hatchville, and how it is different from the other schools in [the county], for example. So that the kids may at least have more exposure to some of these things that they just might not have in Hatchville.

Results

We next outline the tensions that the major settings of learning to teach produced for Sandy during her semester of student teaching, going chronologically through the three observation cycles that comprised the data collection periods. We look in particular at a set of emphasesóon formalism, sequencing, and constructivist pedagogyótoward which Sandyís teaching gravitated. These emphases, often in conflict, produced the tensions through which she developed her conception of functional literacy.

Observation Cycle #1: Travel Narratives

The first observation cycle took place from September 23-27. Prior to the observation, Sandy had taught the students how to identify common and proper nouns. Sandyís language arts instruction during the observation was centered on the studentsí writing of travel narratives. Carla and Sandy collaboratively planned a lesson that required students to apply their grammatical knowledge to a geography unit in which they learned to read maps and identify the continents and oceans. The

studentsí task was to write a story of an imaginary trip on which they visited all seven of the worldís continents and crossed all four of the worldís oceans. Their narrative needed to include both intermediate and cardinal directions. The papers had to be written entirely in complete sentences, with common and proper nouns written in different colors. We next view Sandyís instruction in light of Sandyís emphasis on formalism, sequencing, and constructivism.

Formalism: Sandy described the school curriculum by saying, ìItís [the state curriculum] and [the Iowa Test of Basic Skills]. And you have to teach everything that youíre going to teach by March, because thatís when your test is.î She reported that a colleague said, ìWeíd better get through with this, weíd better get through the [curriculum]. Weíve got to get through . . . everything we have to teach before March.î This institutional pressure on meeting the formalist requirements of the school and state curricula, particularly in relation to the ITBS, structured the ways in which Carla mentored Sandy in her early months of teaching. Sandy said that her instruction focused on ìgetting ready for their tests, because thatís big on Carlaís mind, and big on the administrationís mind.î

Within this framework, Carla and Sandy planned the travel narrative assignment. As noted, students were responsible not only for proper form (complete sentences) but proper labeling (color coding common and proper nouns), even if such labeling might be cumbersome for those students who had little experience with writing. Many students, for instance, did not understand at first the convention of putting spaces between words, suggesting that they had done very little writing prior to this lesson.

When asked about her planning of this lesson, Sandy explained that ìI think that they really need to learn how to write, but I think that like the parts of the sentence, and stuff like that, yeah they need to know that, but I think that it can be done through other ways, than just, this is a noun.î She thus tried to use assignments such as the travel narrative to cover parts of the curriculum that otherwise might be taught in isolation through workbook exercises.

Sequencing: In their travel narratives the students were required to sequence information properly. Sandy said that Carla included lessons in sequencing ìoff and on all the timeî during her semester of student teaching, including a ìbookî on how to make a peanut butter and jelly sandwich early in the semester. University supervisor Michelle reported that she had emphasized sequencing when teaching Sandy and her classmates in the Science in Elementary School methods class during the semester prior to student teaching. She continued to reinforce an emphasis on sequencing across the curriculum during Sandyís student teaching.

The travel narrative required students to sequence the information so that it followed their travel chronologies and ordered ideas and facts in a proper succession. For instance, when asked if the studentsí writing had changed following editing comments, Sandy replied, ìSome of them, like this [comment], it says, ëYou

may need to tell us how you got there.í And so they would go back and theyíd read theirs and go, ëOh, okay, we forgot to tell you that we did this.í And they went back and did that.íî Further, the feedback pointed to areas of confusion. Students advised one another ìto add more stuff. Some were saying, um, we swam where? They didnít know where they went.î Peer feedback, then, helped students to recognize when sequential information was missing and fill it in. Further, we see an implication that students were taking some ownership of the activity by demonstrating not only a knowledge of sequencing but knowing how to recognize gaps in other studentsí work, talk about appropriate sequencing of information, and both critique othersí writing and incorporate criticism into their own writing.

In addition to requiring proper sequencing in the narratives, Sandy taught the writing process as a sequence. They began the project on Monday, produced and edited a draft on Tuesday, revised their stories on Wednesday, produced a final draft on Thursday, and on Friday read their stories aloud to the class. Each of the major stages of the process was emphasized on a different day, suggesting that studentsí writing should follow the widely-accepted premise that the writing process includes the five consecutive stages of prewriting, drafting, revising, editing, and publishing, even if that belief has been vigorously contested (e.g., Schneider, 2003).

Sandy identified two reasons for introducing the writing process early in the semester: ìto help them on that [Criterion-Referenced Test] that they take [and] to help us understand them a little bit more.î With this statement she linked her writing process instruction to both the formalist tradition as assessed on the CRT and the constructivist tradition in using student writing as a way to get to know students better.

Constructivism:

> [The students] hate, just like I hate working out of the textbooks. They hate using them too. So weíre trying to go out of that. Carlaís trying to break out of being very traditional into the more progressive, but the administration here wants them to be more traditional. And if they are more progressive, then the administration gets ticked.

Sandyís remarks reveal the tension she experienced between the formalist tradition institutionalized at Hatchville Elementary and the constructivist or progressive influence she brought from the university. This tension was evident during the travel narrative assignment as Sandy incorporated aspects of constructivism into the assignment. The writing process instruction, for instance, however discrete and lockstep it might appear to a purist, attended to learning pathways in a manner more time-consuming and conceptual than is customarily accommodated in a formalist curriculum.

In addition, following a whole-class brainstorming session, the students worked in cooperative groups to write their stories, one of the constructivist pedagogical tools we identified in our analysis. This experience was the studentsí

first of the year in small groups. It was a rare occurrence not only in Carlaís class but in any elementary classroom that third author Bonnie Konopak (at the time the department chair) and university supervisor Michelle Garner reported observing while visiting schools in the area.

Finally, the travel narrative assignment involved integrations, a term used in Sandyís university program to describe interdisciplinary instruction. The assignment took a geography lesson and built language arts fluency into studentsí reporting of information, both in terms of their writing and their application of grammatical and syntactic knowledge. Such an integration helped Sandy to depart from the ìtraditionalî workbook approach to assessing studentsí linguistic competency. The travel narrative assignment therefore represented a hybrid mode of instruction for Sandy in the context of Hatchville Elementary, meeting formalist curriculum standards and objectives while achieving the broader goal of equipping the students with the more useful abilities of knowing how to write and sequencing information properly.

Whether it met her stated goal of providing students with ìreal meaningî in their schoolwork was not available to us, given that our focus was on Sandy and her thinking about her teaching. What was evident, however, was that the studentsí narratives served some communicative purpose, as evidenced by the studentsí revision suggestions to provide additional detail for clearer sequencing. How that skill became functional for the students was outside the purview of our study.

Observation Cycle #2: Historical Fiction

The second observation cycle from November 13-15 was centered on Sandyís teaching of *What's the Big Idea, Ben Franklin?* (Fritz & Tomes, 1976), a biography written for young readers. Sandy and Carlaís decision to focus on historical fiction came about because that fall was the occasion for a presidential election. Sandy said that she and Carla ìwent into the election and got into historical stuff, and we decided this would be a good time to do presidentsî and other prominent political figures such as Franklin. She continued, ìWe went into historical fiction and they will eventually do book reports on presidents.î We next outline how formalism, sequencing, and constructivism were involved in her instruction.

Formalism: Carla and Sandy hoped to assist studentsí understanding of the biography through worksheets, a practical tool that they used routinely during the semester and as comprehension assessments during their reading of the book. With a number of students struggling with their reading and with a standardized assessment looming ahead, she and Carla were ìworking on our reading comprehension skills about a week, majorly concentrating specifically on comprehensionî in conjunction with their reading of the Franklin biography.

Their preparation included worksheets that Carla had prepared measuring the studentsí literal comprehension of the text. This emphasis was prompted by the fact

that, as Sandy said, ìthey have enough trouble just sounding out the words that comprehension is the last thing on their mind.î She elaborated,

> The kids were having trouble with comprehending anything that they were reading. So we figured that that was a big thing, plus itís an Iowa test objective. Itís also a third grade objective and itís a [state curriculum] objective. So we decided that that was a focus that we really needed to concentrate on now because they werenít comprehending even directions.

This set of worksheets was designed to assess studentsí ability to locate or recall information from a text they had read. Sandy and Carla helped the students to approximate testing conditions by doing the worksheets under timed conditions. As Sandy noted, ìThey have to write on reading comprehension sheets a lot.î

In addition to these comprehension exercises, the students did worksheets on verbs, the identification of which was central to the curriculum that ìsmooshedî together the standardized assessments and the state curriculum standards. After worksheet preparation featuring verbs, Sandy and Carla made flash cards for practice and review. For this historical fiction unit, then, Sandy resorted to a method that sheíd hoped to avoid, that of teaching by means of worksheets and flash cards that tested studentsí knowledge of grammar in isolation. We see this decision as part of her accommodation of her values to the exigencies of student teaching in this setting.

Sequencing: The main task following their reading of the Franklin biography was, as Sandy described it, ìa sequencing activity for readingî: a time line detailing Franklinís life as outlined in the book. Sandy explained her emphasis on sequencing by saying, ìSequencing is a big thing; reading comprehension is a big thing as far as reading is concernedómajor, major thing. I think that reading for enjoyment is another big thing and reading for information. Those are the things Iíve majorly focused on.î

For this project the class was provided a 28-foot piece of paper that was sectioned off into 18-inch squares so that the students could detail and illustrate the major events of Franklinís life. After Sandy verified the correctness of their representation, the students colored in the timeline with magic markers and crayons and Sandy displayed it in the hallway outside the classroom. Sandy, we infer, believed that studentsí ability to understand and reconstruct the sequence of a textís narrative was central to their ability to comprehend it.

Constructivism: Sandy noted during one interview that Principal Dr. Bruce ìhates the U-shape but itís better than cooperative groups to her. I like cooperative groups and so does Carla, and weíre going to stick them back into cooperative groupsî after Dr. Bruceís observation. As was the case in the travel narrative assignment, Sandy used integrations for the time line; that is, students combined a reading comprehension strategy and assessment with a historical unit of instruction. On the whole, however, we see more of the fragmented sort of curriculum that

Applebee (1974, 1996) finds characteristic of the formalist education that Sandy had hoped to avoid in her teaching than she exhibited during the first observation cycle.

Observation Cycle #3: Revolutionary Narrative and Procedural Explanation

During this observation cycle Sandy taught two final lessons on sequencing, each resulting in student writing. We found no instances of formalist instruction during this observation cycle; the lessons focused primarily on sequencing, as we outline next, which appeared to tilt more heavily to a constructivist approach.

Sequencing: Sandy continued the studentsí study of colonial literature by having them write a narrative requiring chronological sequencing. To follow up the activities from the previous observation cycle, Sandy had the students write a fictional narrative of their lives leading up to the Revolutionary War, an activity she borrowed from Carlaís curriculum materials. Their task was to describe their lives approaching the Revolution and to do so in a proper sequence. Sandy described the activity as follows:

> It is done chronologically through birth through old age, and why would they put it that way instead of jumping around and stuff like that. We talked how what we, what we did sequencing activity right there. How it fit in with books and stuff that they read. And like the lessons we teach them in math and stuff. Why do we teach addition and subtraction before multiplication and division and stuff like that.

The second sequencing activity required the students to describe how they would do something, e.g., set the table, make a bed, take a shower, etc. Sandy remarked that the lesson forced the students ìto think about sequencing in a different way than just in the stories they read. They were bringing it into the real life and I thought that was kind of a good idea.î Even with this personal connection, Sandy felt that the students had the most difficulty with ìthinking chronologically.î In contrast she found that students did a good job taking on other perspectives when describing their sequences:

> One kid had to take a shower and he was like, well, the knob, and youíre going to have to turn that towards your left-hand side [rather than saying to turn it counter-clockwise] because he didnít want them to have to look at a clock because we have digital clocks. . . . So the perspective thing for most of the kids was not that difficult. It was just thinking chronologically and sequencing their activity. That was the most difficult for them.

The emphasis on perspective-taking was not new. Between the first and second observation cycles, Sandy and Carla had taught a unit on Christopher Columbus and his explorations across the Atlantic. Sandy said,

> I taught them about Columbus on Columbus Day, and I was trying to teach them perspective that way. We read this Columbus book and it was written from Columbusís perspective. And I said, ìNow, you know thereís two sides to every

> story. Youíve heard your parents say this a lot. Whatís the Indiansí side of the story?î And I had them do creative writing, writing from the perspective of the Indian.

Taking the perspective of another, then, was central to describing a proper sequence and built on her previous, more global instruction in understanding the world and particular events from anotherís point of view.

Constructivism: Sandyís instruction during this observation cycle included a number of constructivist activities. For the paper describing a sequence, students had to take on the perspective of potential and actual readers in order to explain their processes clearly. We infer that in order to take another personís perspective, the students had to engage in what Sigel (1970) calls ìdistancing,î i.e., stepping back from their immediate experiences and creating a physical or mental object that they could ponder and reflect on. This ability, he argues, allows for the sort of abstraction that leads to success in school. Students who were able to step back in this manner achieved what Sigel calls ìrepresentational competenceî (p. 113).

From a constructivist perspective, stepping back to take anotherís perspective on a written sequence requires the writer to view the text as a malleable work in progress that may be revised to take into account new information, ideas, etc. By seeing themselves and their work as others might see them, they potentially use othersí constructions of themselves and their texts to inform their own conceptions of who they are and how they represent themselves, thus contributing to the representational competence described by Sigel (1970). Michelle said that ìThe lesson not only accomplished the goals of sequencing and such, but it also got the students to think or see through othersí eyes, or how other people might view things, or view the culture of Hatchville.î

Sandy also included several constructivist activities within the assignments. To take advantage of the studentsí talkativeness as they approached the Thanksgiving break, Sandy allowed the children to work in small groups when doing their Revolutionary War narratives. She also provided the curricular integrations central to the constructivist approach she had learned at the university. Michelle reported that Sandy effectively ìconnected [the sequencing lesson] with the history lesson,î in addition to incorporating it with writing instruction.

The third observation cycle featured several statements coded for *perception of students*, a hallmark of constructivist teaching as she had learned it at the university. She and Carla, rather than teaching lessons strictly as planned, often adjusted their instruction based on how students performed. ìWeíre really open that we want to change things if we need to change things,î said Sandy. ìWeíve even told the kids if they think that theyíd learn it some way different, to adjust, and they do.î

Finally, Sandy expressed a desire to make school interesting and relevant and therefore engaging to students. Even activities that were successful on one level, such as the perspective-taking assignment on Columbus, were not successful on others; in retrospect Sandy reflected that ìIt wasnít that meaningful to them. But I

figured out what kind of things were meaningful to them later.î Meaningful tasks, she believed, had greater potential for inviting students to pay attention and succeed and to learn useful life skills.

Discussion

> Sandy: You donít do it the way that you were taught in college on a daily basis.
> Michelle: No, you donít. Reality sort of sneaks in there.

This exchange took place during an observation and feedback session with university supervisor Michelle just before Sandyís student teaching ended. We see both Sandyís observation and Michelleís confirmation as evidence of the imperative she faced to broker university ideals with the gritty realities of classroom life. The universityís emphasis on a constructivist approach often came in conflict with Hatchvilleís stress on a formalist, often concrete curriculum. This tension required Sandy to accommodate both sets of values as best she could under Carlaís mentorship and in terms of the beliefs that she brought to her teaching from her prior experiences.

The *attribution* codes suggest that the school site had a greater impact on her teaching than her university preparation; Sandy made only 6 attributions to her teacher education course work and 45 to her cooperating teacher. In addition, she referred to the context of her teaching only 8 times (primarily district mandates) compared to the more proximate classroom problems of perception of students (24 instances) and student learning (37 instances). What is clear is that the immediacy of her student teaching experience came out more frequently during interviews and observations than the broader, less tangible influences of her teacher education program and the district and its policies. What is less clear is the extent to which the frequency of a reference during a classroom-based interview and observation will cue responses and attributions to influences that are less direct.

What we find striking in Sandyís teaching is the recurring emphasis on sequencing. Michelle emphasized this proficiency in science education methods class at the university and reinforced it as a critical ability during Sandyís student teaching. Further, Carla valued sequencing as a central facility in studentsí cognitive repertoires and incorporated it into her curriculum. As evidenced by her seeming endorsement of sequencing during each interview in which she discussed it, Sandy appeared to agree that learning sequencing was a worthwhile emphasis for third-grade students at Hatchville Elementary School. The absence of any critical remarks about sequencing throughout the research suggests that environmental factors alone cannot account for this focus in her teaching.

Yet sequencing appears to be a relatively literal and concrete emphasis that, on the surface, does not appear to fit in the sort of constructivist curriculum emphasized at the university and also advocated by Sandy on many occasions during the semester. Sandy and Carla used familiar activitiesómaking a peanut butter and jelly sandwich, taking a shower, and so onóto scaffold studentsí ability to produce more complex

sequences such as a lengthy timeline. These activities, however, are not amenable to wholesale constructivist action. A person generally does not dry off before showering or apply peanut butter before opening the jar; some sequences are more likely to accomplish a task in a timely and efficient manner than others, and some might not achieve the goal at all. Indeed, we gathered from the observations and interviews that some sequences expected of Sandyís students were, if not firmly established, at least highly preferable to others that students might construct. This fidelity to accepted sequences and chronologies was particularly evident in studentsí efforts to construct time lines and narratives that followed a fixed succession of events.

We must consider, then, what the instructional emphasis on sequencing accomplished in light of Sandyís effort to save children from falling from societyís graces and possibly becoming offenders. We infer that as a soldier and police officer, Sandy internalized some value on order. This value is evident in sequencing, an ability that requires an understanding of proper arrangement and succession. We also infer that such concrete abilities are useful in the job alternatives generally believed to be the destination of people from poor, rural communities: those requiring the ability to follow procedures dependably and carry out assigned responsibilities. We do not endorse this reproduction of the social division of labor (Williams, 1977); rather, we see this assumption as underlying the curricular emphasis on sequencing in Hatchville Elementary. To Sandy, Carla, and Michelle, sequencing was a transferable skill; explaining the order of making a peanut butter and jelly sandwich required an ability that could then be applied to reconstructing chronologically the events leading up to the Revolutionary War. Sandy, we infer, believed that skills of this sort comprised an important part of functional literacy that in turn might eventually be transferred to work skills that led students to grow into stable, law-abiding citizens.

The constructivist influence came in terms of the activities through which her students determined their sequences: collaborative group work, the integration of different disciplines in reading and writing, using perspective-taking in order to reconstruct texts, and understanding studentsí interests in order to reconstruct the curriculum for meaningful instruction. This inclination was at times tempered by Hatchvilleís formalist curriculum that promoted the teaching of language in isolation, the preparation for standardized tests, and other atomistic, form-oriented instruction.

We see another likely reason that Sandy relied so heavily on sequencing during her student teaching. Carla and Michelle both encouraged it, thus distinguishing sequencing as among the few instructional activities supported in both the formalist setting of Hatchville and the constructivist setting of the university. It was therefore a safe instructional choice given the absence of friction it generated during an experience that is, for most student teachers, highly stressful. Along with Sandyís own apparent belief in the value of sequencing as a literacy skill, these environmental factors may have contributed to her use of this pedagogical tool throughout her student teaching.

Ultimately, Sandyís sense of functionalism was likely more concrete than what her university professors would expect in the constructivist approach that they endorsed, and more constructivist than what her mentor and colleagues at Hatchville Elementary would expect of a teacher interpreting their curriculum. We see in her student teaching, however, an effort to enable her students to read both the word and the world (Freire, 1972). That is, we see her notion of literacy as involving more than sounding out words. Rather, literacy was functional in terms of providing students with a way to order and bring meaning to their worlds. Even if that sense of order might follow a more conventional path than a constructivist university professor might endorse, Sandy believed that it helped to channel students toward lives that would be richly rewarding and lived with direction, decorum, and security.

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