INSTRUCTIONAL METHODS AND LEARNING ACTIVITIES IN TEACHING WRITING

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INTRODUCTION

Helping students learn to write requires activities that shift their perspectives between those of speaker and listener, writer and reader, creator and critic, skeptic and persuader, to name a few. Student writers, like experienced writers, must learn to do such role shifting because writing is at once thought and communication, cognitive and social, content and process. Effective writing teachers address these complexities by offering informative coaching on challenging writing tasks and extensive opportunities to practice multiple types of writing. They organize instruction in ways that promote language-specific processes and attitudes, as well as adhere to the basic assumptions and generic learning principles described by Brophy in Chapter 1 of this volume. After a brief review of major assumptions about writing development that influence instruction, we present three principles that underlie the creation of effective instructional methods and learning activities in writing classrooms. The principles are derived from research literature on the teaching and learning of writing as well as the work and writings of expert practitioners. As we discuss each principle, we provide examples of instructional methods and learning activities that follow from it.
ALTERNATE PERSPECTIVES OF WRITING DEVELOPMENT

Implicit in all writing programs are ideas about the ideal components and sequences of this fundamental literacy skill. Historically, the most effective programs have based instruction in theory of writing development. Several different notions of writing development have dominated the field since the 1980s, notions that often co-occur as underlying assumptions of writing curricula and instruction. The prevailing views of writing development have been what we refer to as the print-based view, the maturation view, the expertise view, and most recently, the sociocultural view. Instruction differs across these views, but rarely is any single notion of development the basis for an entire writing program.

Defining student progress in terms of print means following a sequence of teaching letters, words, grammar, paragraph types, and extended genres. Since these written forms are essential to writing, the print view is always relevant, but classroom practice that moves beyond a strict adherence to this sequence shows that children write better if they have other kinds of instruction as well (Graves, 1983; NAEP, 1999).

The maturation view is based generally in cognitive-developmental theory and proposes a sequence of writing instruction that follows children’s evolving abilities to analyze phenomena in the world, in this case focusing on print, its attendant features and functions, and children’s increasing abilities to manipulate print to meet age-appropriate goals (Clay, 1991; Ferriero & Teberosky, 1982). Skills like being able to form letters, mastering the orthographic code, writing grammatical sentences, and organizing arguments are believed to mature as the child interacts with written language. Children are encouraged to symbolize their ideas and communications in spontaneous graphic forms such as invented spelling, drawing, or dramatic performances (Clay, 1991; Graves, 1983; Dyson, 1989, 1993; Wagner, 1998). According to this view, children can express ideas before they have mastered all the mechanics of standard orthography, sentence and paragraph structure. Educators and researchers working from this view also explain that writing instruction begins in pre-school and includes generating interesting content for purposes of discovery, self expression, and communication. Descriptions for instruction up through middle school have been offered (Atwell, 1987; Calkins, 1986). Research on the effectiveness of this approach has indicated that many children have, in fact, begun to write at earlier ages than was ever believed possible, achieving adequate fluency up through the fourth grade (NAEP, 1999). These successes, however, have been relatively limited for children from minority backgrounds.

Related but more specific processes, especially for older students, have been based in the view that, once the basic orthography, sentence structure, and awareness of purposes for writing are established, at least to some extent, developing as a writer involves gaining expertise with composing processes. In this view, writing is a problem-solving process involving strategies for generating, organizing, and reflecting on ideas as they are expressed in text form (Flower & Hayes, 1980). Writing researchers compared the processes of expert and novice writers and recommended instructional activities aimed at helping novice writers adopt more expert-like behaviors, such as planning by establishing goals throughout the composing process, thinking about the needs of potential readers, and revising across sentences and paragraphs – not just within words and sentences (Bereiter & Scardamalia, 1987; Flower & Hayes, 1980). Writing instruction focuses on processes that engage writers in stating and following goals, defining the relevant strategies to meet goals, and deliberately delaying editing until late in the process. Interestingly, this approach teaches students to work with aspects of writing that will never actually appear in the text, before they pay attention to the specifics of text form and to delay text-based revising and editing until relatively later in the process (Bereiter & Scardamalia, 1987; Flower & Hayes, 1980).

The sociocultural view of development is consistent with the need for student writers to learn expert practices, but conceptualizing writing development as culture implies more instructional attention to the issue that there are myriad values and forms of written language and that each is a particular cultural discourse forms (Dyson, 1989; Dyson & Freedman, 1991, in press; Freedman, Dyson, Flower & Chafe, 1987; Lee, 1993). This view implies making a place in the writing curriculum for relating oral and written language, in large part, to account for cultural differences in language, symbolization, expression, and values. It also means emphasizing the importance of making linguistic diversity and multiplicity central to writing instruction. Finally, the sociocultural view implies that instruction requires that writing be meaningful to the writer and that there be time for translation among different modes of written language, such as expressing a news item in a school news paper, in a text book, and in a song for audiences that prefer Standard English, Black English, and/or a foreign language like Spanish.

Writing activities that follow from a sociocultural view must thus involve the examination and creation of texts that are true to different aspects of the students’ linguistic experiences and that attend to what is involved for students as they move between their everyday oral language and the more formal written
language varieties of the schools and ultimately the workplace. These activities are built on the understanding that while some children are not prepared for the requirements of school, others come to school unfamiliar with the valued discourses because their home cultures do not share language with mainstream institutions and teachers or because their families, even if from diverse cultures, do not have educational backgrounds that prepare them for home to school language transitions (Michaels, 1991; Au, 1980; Heath, 1983; Ogbu, 1987). It follows that the purposes and practices around learning to write must be made explicit so that everyone has the chance to participate. Achieving some common language is an important goal of education in a democracy, but the unique nature of writing instruction relative to other aspects of the curriculum requires a more subject-specific interpretation of equity. Research on writing, especially from the sociocultural perspective, indicates that diversity must be addressed rather than transcended.

INSTRUCTIONAL METHODS AND LEARNING ACTIVITIES FOR THE TEACHING OF WRITING

This section shows how sociocultural notions of writing development and the generic principles Brophy outlined in Chapter 1 can guide the creation of learning activities for writing classrooms. We limit our focus to methods and activities aimed at helping students learn to produce school-based written texts. Although other kinds of writing (most commonly diaries and journals) may be used as a means to this end, our concern is only how such writing functions to help students achieve the goal of improving their writing for school. We also consider how students might use writing to acquire subject-matter knowledge across the curriculum. To supplement and make Brophy's generic teaching-learning principles more specific to writing, we build on sociocultural notions of writing development and propose three instructional principles specific to the teaching and learning of writing.

**Principle 1:** Productive writing activities employ varied types of classroom language that support the development of varied cognitive strategies necessary to writing development.

**Principle 2:** Productive writing activities take into account the different demands of different types of written language and the fact that students must learn to write in a variety of ways, for a variety of purposes, and for a variety of audiences.

**Principle 3:** Productive writing activities include classroom-based reflection and assessments by teachers and students to monitor students' development and achievement in writing.

**Principle 4:** Productive Writing Activities Employ Varied Types of Classroom Language That Support the Development of Varied Cognitive Strategies Necessary to Writing Development

All forms of communication are needed for the teacher to understand and to help support children's writing. A major advancement from writing research is that classroom talk is not just talk. Rather, there are different kinds of talk that relate to writing in different ways. So developing ways of thinking and communicating occurs through different ways of delivering instruction. Much research on writing has focused on the purposes and functions of talk as it occurs in different instructional contexts to support students' writing development (Cazden, 1988; Daitute, Campbell, Griffin, Reddy & Tivnan, 1993).

Classroom talk has become increasingly purposeful in writing classes as ideas about the close relationship between talk and writing have increasingly guided practice. Writing instructors have, for example, organized social interactions that support a specific writing role: alternating teacher recitation in front of a full class (Cazden, 1988; Nystrand, Gamoran, Kachur, Prendergast, 1997) with conferencing in small groups (Graves, 1982; Freedman et al., 1987; Nystrand et al., 1997; Sperling, 1990), and peer collaboration (Daitute, 1986; Di Pardo & Freedman, 1988; Dyson, 1986; Freedman, 1992). Such arrangements engage students in different ways as members of communities that motivate and respond to writing. They highlight, moreover, that writing is social even though authors typically must imagine their audiences as they compose individually.

In addition to supporting writing instruction by varying activity contexts in class, effective teachers structure those contexts in ways that plan for different kinds of talk. In other words, teacher/student conferences and collaborative writing are designed for teachers to engage individual students in the specific expert composing strategies they need to improve their writing. In addition, small group work is designed to increase student writers' motivation, sense of audience, and use of personally-meaningful language, all of which transfer from group to individual composing contexts.

In summary, teachers take advantage of different classroom arrangements to impart information about writing, to guide students in thinking like a writer, to respond to students' writing, or to guide students in practicing different writerly
roles. These different functions of talk promote different kinds of writing abilities.

Questioning to Deepen Reflection
Nystrand and his colleagues have analyzed instructional talk among adolescents in English classes to learn about the results of different types of instructional questions on students’ writing (Nystrand et al., 1997). In particular, the researchers examined whether and how teachers engaged students to deepen their thinking about topics and texts by asking “authentic questions”. Authentic questions require students to respond with original thoughts, extensions between literary texts they were studying, what had already been said in class discussion, and their own evolving ideas about the topic. Students’ responses to authentic questions contrast with responses to questions that probe for specific, limited answers as in fill-in-the-blank work sheets (Nystrand et al., 1997). The following brief example illustrates a relatively open-ended question that requires the student to probe his/her own understanding and the teacher to respond in spontaneous ways as well. The class is discussing a poem about a sibling relationship during the 1920s depression in the U.S.

Mr. Kramer: Now what about the final stanza? . . . Look at the final stanza.
Student 1 (interrupts): She’s showing that she’s not as sure of everything as she says she is.
Mr. Kramer (jumping in to read a segment of the poem): “He sees her . . .”.
Student 2: Does that mean that she is nervous and trying to hide her feelings? She doesn’t want him to think she’s nervous.
Mr. Kramer: Yeah, she’s successfully hid her feelings, until like the neon sign thatこんなly beats.

Such exploration of ideas is a process that writers must use when working on their own to create texts that are original, transformative, and interesting to read. Authentic questioning should be a recurring, sustained activity in writing classes so that students can internalize such a process for solo use.

Teacher/Student Interaction to Develop Expert Composing Strategies
Classroom interaction with younger students has emphasized the use of talk to model expert composing strategies, like planning. In the following example from a third grade open classroom, the teacher wrote collaboratively with each student (when the aide was in the room to guide small group work with the other students) to let them in on the ways that she as an experienced writer, makes decisions about the organization, information, and phrasing of texts. In short, this teacher thinks aloud while writing with her students and guides them as apprentices in the composing process (Daute et al., 1993).

In the following excerpts from a collaborative composing session, the teacher guided her student Gary in how to compose text with attention to opening sentences and rich content. The first excerpt illustrates the strategy of creating an opener with the reader in mind.

Teacher: Got it? What a good idea you have! Now we need a catchy sentence at the beginning, that’s going to get everybody to want to read this story in the newspaper!
Gary: Hmm (Daute & Griffin, 1993, p. 116).

The next excerpt illustrates how the teacher emphasized including important information related to the content and the process of selecting information based on its significance.

Teacher: What was significant? What was the most important thing about the printing press? Why was that an important invention?
Gary: It made it easy, it made it easier to copy things, like umm you wouldn’t have to write every page or something. Or if you wanted to have copies, you could just put it on the printing press, and it would go easier.
Teacher: Right. And then people could, and then more ideas could speak, because people could write down their ideas and pass it along.
Gary: Mm-hmm (Daute & Griffin, 1993, p. 116).

The teacher then shifts to focus Gary’s attention on the form of the narrative.

Teacher: And then we can talk about what happened, how Gutenberg wanted to make books beautiful and how this other person wanted to just mass-produce books.
Gary: Yeah.

When done two or three times in the course of five months, such teacher-student talk has proved effective for helping students write more explicitly organized texts. Knowing whether students use the composing strategies modeled by the teacher is not easy, but Gary’s writing as well as the writing of other students in the class showed this teacher’s influence. Further interactions between peers indicates that children, including Gary and his peer partner, when working alone together, also use some of the language of expert composing processes introduced by the teacher. Interestingly, student pairs transformed the teacher’s strategies into their own unique approaches.

Peer Collaboration Transforms Ideal Language into Children’s Voices and Real Audiences
Teachers can promote yet another aspect of interaction to support writing. Carefully designed and monitored peer collaborative writing groups bring youth genres into the writing classroom (Daute, 1993). Children doing the same types of writing activities for the same class newspaper as Gary and his teacher talked about different topics than the teacher and Gary. While the
teacher guided students to plan, revise, and use detailed subject-matter content, the children playfully and interdependently reflected on how they felt about topics and different ways of expressing these topics. Interestingly, such peer interactions led to improvements in children’s writing although these differed from the characteristic improvements after children collaborated with the teacher (Daute et al., 1993).

Young people express their concerns and goals spontaneously, through playful and seemingly aimless talk, in contrast to the deliberate nature of different types of teacher talk. Nevertheless, the consistency in patterns of play raises issues that challenge commonly accepted notions of how writing and knowledge develop. Student composing dyads vary greatly in topic and form as they compose, yet they persist at finishing the task. Most importantly, they express deep, albeit idiosyncratic, motivation for writing in the context of their social interaction, although they are not able to explain their major motivations as the teachers do.

The difference between teacher-student collaboration, focusing on composing strategies, and student peer collaboration, focusing on socially- and emotionally-based composing (Daute, et al., 1993) is one that played out in different ways in a cross-cultural study of middle schools students in the U.S. and the U.K. (Freedman, 1994). Teachers in the U.K. built writing instruction out of a range of interests and needs expressed by students as they progressed in their own individual ways. This type of negotiated curriculum evolved through talk in which the British teachers used to shape instructional goals into an evolving curriculum for a particular group of students, making adjustments for individuals as needed. They did not adhere to pre-planned and teacher developed curriculum, which was the main way teachers in the U.S. proceeded. In some ways, the interpersonal quality of the British “negotiated curriculum” was like what the young U.S. peers in the study described above did, which may offer insights about why the peers’ interactions led to improvements in their writing.

Engaging Students in Metalinguistic Talk as the Basis of Interpretive Writing
Metalinguistic talk – talk about language – occurs in integrative writing activities that combine talking, reading, writing, and other forms of communication. Maintaining integration between talk and text in high school literacy instruction is atypical yet a forward-looking example of a sociocultural approach. Although writing instruction in high school and middle school tends to be dis-integrated into traditional disciplines of English, literary study, composition, and specialized subject matters, the need for integration has become increasingly salient, especially because it is in the isolated disciplines that children from non-mainstream language backgrounds begin to fall behind (NAEP, 1999).

Because writing is social, any specific piece of writing is the expression of a particular culture, its values, forms, and purposes of expression. For this reason, learning to write involves understanding how different instances of writing relate to other forms of communication and thought, including oral language, non-verbal communication, and the languages of specific disciplines. Integrating across diverse forms of expression also makes more likely that multiple perspectives are invited into the classroom. Integrative writing activities must be well-planned to focus around the creation and interpretation of written texts. Such activities tend to evolve over extended periods of time and require checkpoints along the way for reflection on how the different modes support the creation of text. The most innovative practices in writing instruction integrate across oral and written language in ways that support students from diverse backgrounds. Toward this end, writing can be related to reading, for example, with the close examination of literary and academic texts representing different cultures and the ideas, symbolic forms, and language forms in these texts. Thus, reading provides models and motivation for writing.

Analyzing multicultural literature has become the focal point for integrated writing activities in many K through 12 classrooms. An example from a high school English class in a school serving predominantly African American students illustrates how analysis of everyday language can be the basis for complex exposition. In this class students came in reading and writing significantly below grade level and many had never even read an entire book. They were taught to write about and analyze complex pieces of literature by building on their everyday African American English Vernacular (AAVE) language practices The instructional unit shows these students how AAVE possesses the metaphorical quality and critical orientation that characterizes literary analysis and effective expository writing (Lee, 1993).

The teacher focused on signifying – an AAVE practice involving ritual insults through figurative, playful language. The activity began and ended with students writing about literature. Instructions for the final writing sample asked for analysis (“identify”, “discuss specifically what they meant”, “in your own words”):

On page 90, what does Paoline mean when she makes the following statement? “All them colors was in me”. Be sure to identify the colors she describes and to discuss specifically what they meant to her in your own words (Lee, p. 7).

Given the beginning level of these students, the following written response was rated as proficient.
When Pauline said that all the colors was in me she means that when she met Chloe she thought about when she was little and the berries mashed in her dress and when her mother made lemonade and Cholly made her feel like a little girl again and when he whistle it brought shivers down her skin. I believe the colors stood for beauty and it also made her feel good inside the colors just made her happy (Lee, 1993, p. 178)

This students' analysis is marked clearly with phrases like “she means”, “how is... like...?” and the practice of imagining the words on the page, which the student who wrote the paragraph about Cholly seems to have internalized.

This class discussion is integrative in several ways. The teacher and students talk about the figurative language of signifying (“He said they was using his ribs for a washboard”), linking this to visual images in the text, and relating these symbols to the author's greater meaning in the text. Such a discussion moves across language familiar to several cultures in the U.S. as well as across oral and written language. In addition to being literary talk, such metalinguistic reflective language became the basis for analytic writing that is organized around practices like comparison and contrast, making an argument, and supporting generalizations with examples. This session created the kind of analytic language that students needed for their expository writing assignment.

Teacher: Can you find any examples of anything that these characters have said where their words are like pictures?
Pat: When he was talking about that mule. They said he was scrubbing by his [unintelligible] bone [laughing]. If you picture that, it was just too funny.
Teacher: While they were signifying about that mule, if you heard somebody say that, if you closed your eyes, could you see that mule? Could you see it just like it was a little movie or cartoon, just from the way they described it?
Students: Group of students respond. Can I read? Can I read?
Teacher: No. Let's read it out loud together to get a good feel for the language.
[Students read conversation on page 49 out loud. Students laugh at section about mule and women.]
Mary: He said they was using his ribs for a washboard. Can you imagine someone doing that to your mule or dog or something?
Teacher: That's the saying?
Charles: No. He feed him out of a...
Mary: A tea cup...
Teacher: What do you think the writer Zora Neale Hurston means when she describes the way these people talk as thought pictures and crayon enlargements of life?
Mary: They talk about a person so bad that you could picture it.
Teacher: That you could picture it from their words. If they are crayon enlargements of life - the crayons are what?
Harry: Then you could actually see it.
Teacher: It's almost like you could see the what of it?
Charles: The entire thing, like what he say, the color, everything.
Teacher: Every aspect of what this picture might look like. And if they are saying is enlargements of life, how is their talk enlargements of life?
Pat: Things that happen are for real, but it's just a little exaggerated.

The students “laughed, paraphrased the text, and provided examples from the text to support their claims” (Lee, 1993, p 113). Meeting the students on their linguistic turf, the teacher worked in school language and its implications with phrases like “it means”, “how is... like...?”, and the practice of imagining the words on the page, which the student who wrote the paragraph about Cholly seems to have internalized.

Principle 2: Productive Writing Activities Take Into Account the Different Demands of Different Types of Written Language and the Fact That Students Must Learn to Write in a Variety of Ways, for a Variety of Purposes, and for a Variety of Audiences

Learning to write by imitating model texts was a common practice for centuries, but as writing instruction has evolved to address the needs of diverse students who are required to learn to write at younger ages than ever before possible, the concept of “genre” or writing type has come to be defined by the dynamic interaction of text in context (Cope & Kalantzis, 1993). While model texts are still invaluable cultural exemplars, teaching student writers how to create letters, essays, stories, and reports involves teaching not just the elements but also the processes for creating such texts. Writing teachers have moved away from focusing exclusively on structural aspects of paragraphs, for example, like topic sentences and details, to thinking about contextual factors like the purpose of the paragraph in the larger text, the situation in which the paragraph will be read, and the readers who eventually will be informed, entertained, moved, or otherwise engaged by it. Teaching written genres now means making the less visible but utterly formative rhetorical demands of purpose, audience, and context explicit as the motivation and processes for specific text forms. Assessments indicating that student writers often master the mechanics of writing but fail to convey compelling meanings underscore the impetus for making such contextual factors central in writing instruction.
Focusing on the formal characteristics of written genres, teachers might organize curricula around classically-defined rhetorical purposes of written language (Britton et al., 1975). Around text forms like essays, stories, and letters, around more basic elements like paragraphs (descriptive paragraphs, cause and effect paragraphs, etc.); or around theses, also referred to as the central idea (Sommer, 1980). Increasingly, however, such forms are taught as moments in socially-situated activities, like identifying and solving a social problem via writing letters to influential people in the community, summarizing existing knowledge about the problem, and writing reports including facts and proposals crafted to express a specific point of view and to persuade readers of the effectiveness of a specific solution. In this way, writing is embedded in broader social issues. In such contexts, focus on text forms augmented by analysis of specific nested goals, the motivating interests served by the project, and the diverse readers to be informed or persuaded.

Creation of the specific text forms also requires close attention since students are prepared differently by the ways of thinking and talking in their homes and communities. For this reason, effective writing instruction devotes attention to specific text forms via cycles of practice writing and reading writing aloud. Text-based instruction has persisted, for example, with a focus on writing narratives, essays, and reports. Teaching such text forms as ends in themselves is not the best practice. Rather these forms can be best taught when framed as modes used in educational materials, newspapers, scientific/scholarly publications, literature, and civic documents in Western written rhetorical traditions.

**Teaching Purposeful Narrative Writing**

The primacy and function of narrative (or story) as a mode of thought and communication has been intensely discussed in recent years. Teachers working in kindergarten through high school devote considerable attention to written narrative. While teachers differ greatly in whether and how they explain the rationales for narrative writing, they have put narrative to work for their students' development as self-aware individuals, as citizens, and as effective test-takers.

Teachers engage students in narrative writing as a pre-writing technique since writing about events from memory is one way to generate content. Some scholars and educators have argued that narrative is the primary organizer of memory (Bruner, 1986; Graves, 1983; Nelson, 1993), and thus it is a "natural" mode for at least the beginning stages of generating material for reporting and reflecting on topics that may later be examined in essay or some other form. Narrative writing, like speaking, has been found to be a mode of sense-making since the reporting of sequences of events in time order engages even the youngest writers in making choices about which details to include, how to sequence them, how to use language to mark their significance, and how to use grammar and punctuation in the service of these functions.

**Using Personal Experience Narratives to Generate Content**

In the popular process approach to teaching writing, personal narrative writing is the core of the curriculum in the elementary grades (Calkins, 1986; Graves, 1983). Teachers set aside time every day for students to write about their lives in journals where unfettered expression in the young writer's authentic voice is a resource for subsequent crafted pieces. Since journal writing is designed to capture spontaneous thoughts and feelings, teachers encourage students to invent spellings based on how the words sound to them (rather than to fuss about correct spellings) and to write whatever comes to mind, uncensored by concerns for structure or coherence beyond individual words (Elbow, 1981). Such narrative writing is a process of researching one's life which makes it foundational in the composing process. More mature writers often use phases of journal writing throughout the development of stories, essays, or other professional genres.

Researchers have described the daily process of writing personal narratives in elementary school classrooms. Journal writing typically begins with a specific focus each day, like "write about something that surprised you" and progresses to one-on-one conferences in which the teacher guides a student to re-read the journal for events, insights, or other ideas that can form the core of personally-meaningful story or an expository report to share with classmates or readers beyond the classroom. While research indicates that such widespread practice of writing personal experience narratives has succeeded in helping huge numbers of children gain basic written literacy, especially in narrative form, by the fourth grade, research has also identified limits of the use of narrative writing as pre-writing. Assumptions about the naturalness of time-ordered narrative sequences as the basic mode of expression, thought, and communication have been questioned. Studies of children's early spontaneous writing have shown that many begin in an expository mode, albeit cryptically, writing lists and letters, rather than event sequences (Newkirk, 1987). Moreover, children of diverse cultures and genders have been socialized to narrative in different ways, which raises questions about any notion that narrative or any particular form of narrative is a basic skill (Heath, 1983; Newkirk, 1987). While valuable as one method for generating content, narrative writing should be taught in other contexts, especially as children mature.
Narrative Writing to Reflect on Important Social Issues

The view that narrative writing is a specific cultural tool for examining self in society is the basis for activities that teach narrative writing in the upper elementary grades. In this context, instruction in narrative writing teaches the canonical form required in mainstream U.S. education, news reporting, scholarly reporting, and much literary discourse for the purpose of reflection and social development (Daiute, 2000). A series of narrative writing activities guided teachers and children in the examination of social conflicts based on racial/ethnic discrimination, issues that face all children in the diverse U.S. society and which, unfortunately, become salient in elementary school. In the curriculum, narrative writing activities were the focus of a violence prevention program designed to equip children with strategies for dealing with conflicts that they might encounter with peers. In this program, children learned to write standard narratives with the broader purpose of using narrative to describe conflicts with peers and to role play different ways of dealing with conflicts. Third and fifth graders wrote a series of fictional and reality-based narratives to be compiled in a book to help the next year’s third and fifth graders gain insights about dealing with peer conflicts.

The curriculum used literary narratives and children’s own stories as bridges between their classrooms, their lives outside of school, and their imagined worlds. The context was one that introduced issues of racial and ethnic discrimination as a theme, with high-quality children’s literature as the point of departure for class discussions, peer group activities, and children’s writing around social conflict (Daiute, 2000; Walker, 1998). For example, in the fall, the fifth grade classes each spent several weeks reading, discussing, and extending the novel Felita by Nicholasa Mohr (1979) about a Puerto Rican girl in the 1960s in New York City. In this novel, Felita and her family suffer many explicit and implicit discriminatory assaults by neighbors, family, friends, and community representatives, and the characters deal with these issues in diverse ways. Interspersed with sessions devoted to reading and discussing this and other novels, the young people participated in a range of collaborative and individual written narrative experiences designed to extend the social conflict themes in literature to their own real and imagined lives. About half way through each book, students were asked to work with a partner on a “Literary Re-construction” task, which explicitly foregrounded issues of discrimination in a quotation from the novel and asked the author teams to write their own endings after discussing different options. This reality-based “Personal Conflict Story” was designed to extend the work classes had been doing around social conflict literature to events in their own lives.

When asked to write about a time when he or someone he knew had a disagreement or argument with someone his age, John, an African-American boy wrote the following story in the fall of his fifth grade year.

My conflict is when me and my best friend Robert and I was fight because I didn’t want to be on his team so we solved it later that day no body got hurt, and that is when we became best friends.

This narrative is a brief rendition of a fight focused on elements highlighted in the task prompt. “Tell about what happened, how the people involved felt, and how it all turned out,” which used narrative elements of time, character motivation, and resolution to build on central elements of the conflict resolution strategy curriculum. Later in the year, John crafted a narrative in terms of central aspects of conflict resolution.

One day I was walk in the corner store and manni [manager/clerk] said get out for no reason at all so I walked out of the store and manni was walking right behind me and he tried to hit me so he hit me and I turned a round and I punched him in the face and he started to cry. He was feeling bad and I was not so happy me self because I now that I could have talked it out and not punched him. He walked away crying.

In the spring narrative John offered deeper reflection about “what happened,” as an event with a reason (rather than just a fight), and the participants’ complex mixture of suspicion, intentions, hurt, confusion, regret, and empathy, rather than as polarized positions as in the fall story. Interestingly, John’s spring narrative did not provide a classic resolution to the fight but used the resolution to express the character’s increased awareness. When reading their stories aloud in large and small groups, teachers supported children’s narrative writing as a social tool and a literacy skill by guiding them to examine the description of events and evaluations of events closely as they indicated the characters’ approaches to social conflict. Discussions of improving narrative writing, thus hinged on social awareness and responsibility as well as on verb tense, character description, and different types of narrative resolution (Daiute, 2000).

Principle 3: Productive Writing Activities Include Classroom-Based Reflection and Assessments by Teachers and Students to Monitor Students’ Development and Achievement in Writing. Writing Portfolios Provide Important Structures That Can Help Teachers and Their Diverse Students Find Ways to Achieve This Goal

Students learn through classroom talk and through practice writing in varied ways and for varied purposes, but they also need to learn to assess their
progress for themselves. In this way, they come to know what progress they have made and what further progress they need to make. Such academic self-knowledge is a building block for learning across the curriculum.

In the field of writing, an elaborate set of classroom activities has evolved specifically for the purpose of helping students develop self-knowledge about their writing abilities and about their progress. At the core of these activities is the writing portfolio.

A writing portfolio, simply put, is a folder or binder that each student keeps and that contains either all of the writing the student produces, both in class and outside of class, sometimes even including all drafts, or more commonly, a selection of varied pieces that showcase the students' accomplishments. Portfolios also commonly include the students’ reflections on his or her work – which pieces the student likes best and why, what aspects of writing the student wants to continue to work on, the process the student followed to compose particular pieces, what changes the student sees in his or her writing across time. Once the student’s writing and reflections on that writing have been collected, the work is available for further teacher and student analysis and reflection.

Instructional activities surrounding portfolios are particularly effective when they are designed to help both teachers and students better understand the nature of student growth in writing and the kinds of teaching and learning that best lead students to progress. Such activities provide the teachers with an opportunity to monitor student achievement and to make expectations clear, but they additionally provide students with practice learning to monitor their own achievement and internalizing those expectations. As Brown (1978) explains, the development of metacognitive skills, coming to know what one knows, is essential to the learning process.

Teachers who introduce portfolios can learn a great deal from case studies of successful portfolio use inside classrooms. Many of these case studies show portfolios as part of large-scale assessment systems and school reform efforts that are attempting to influence classroom teaching in positive ways (e.g., Calfee & Perfumo, 1996; Lucas, 1988a; Lucas, 1988b; Murphy & Underwood, 2000; Wolf, 1988). These case studies show substantial variation in how portfolios are used (e.g., Belanoff & Dickson, 1991; Cooper & Odell, 1999; Murphy & Underwood, 2000; Tehadi, 1997; Tierney, Carter & Desai, 1991; Underwood, 1999; Yancey, 1992). Whether portfolios are used in a single classroom or across a school or district, those who implement portfolios have to make decisions about: (a) what student writing to include in the portfolio; (b) what reflective pieces to include; and (c) how to evaluate and to whom to communicate the evaluation of the portfolio. In the rest of this section we concentrate on how educators who use portfolios to help students learn to write make sound instructional decisions along these dimensions.

The Kinds of Writing

Students learn best from portfolios when they have choice about the kinds of writing to include. At Mt. Diablo High School, where the English department has been using portfolios for over ten years, the teachers who designed the portfolio program, adhering to relatively standard notions of formally-defined written genres, first asked students to include specific types of writing, such as "a personal memory" and "a piece of descriptive writing." Bergamini, the department chair, writes that the Mt. Diablo staff discovered early on that "categories, types, genres, and labels often stultify students' efforts" (1993, quoted in Murphy & Underwood, 2000, p. 28). Showing the deficiencies of genre categories when conceptualized independent of their rhetorical purposes (see Principle 2), she explains that many students felt that their best writings did not fit into the categories. Mt. Diablo teachers abandoned these categories in favor of more open and more purposeful choices, asking students to include:

- a "personal best"
- a "most imaginative"
- a paper from another discipline
- a paper that shows process and revision
- a piece that shows potential for further work
- a paper that states and supports an opinion
- a reflective letter that focuses on one's self as a writer" (Murphy & Underwood, p. 28).

Similarly, the Arts PROPEL project in Pittsburgh, which promoted project-based instruction and portfolio assessment in fine arts and imaginative writing, developed relatively open ways of asking for varied pieces of work. Project participants asked students to include:

- a writing inventory based on questions about the students past experiences with writing
- a piece of writing selected by the student as "important," with reflections about why and about the experience of writing the piece
- two pieces, one the student considers "satisfying" and the other "unsatisfying," with reflections on the qualities of each
- a piece that illustrates the students' processes and strategies, with a description of the creation process
- a "free pick," with a description of reasons for the selection
a final reflection on the portfolio, including changes the student sees across the year (Murphy & Underwood, p. 76).

The Kinds of Student Reflection
A major goal of most portfolio programs is to help students learn to reflect on their writing and their learning. Consistent with Brown’s (1978) general theory of the key role of metacognition in learning, Camp (1992) points out that “In writing as in other performances, we learn in part by looking back on what we have done. In this sense, looking back — reflecting — on the experience of writing a piece or on the written piece itself is an integral part of our becoming more accomplished writers” (p. 61). Yancey (1996) argues that reflection “is most insightful, most generative, when it draws on what Vygotsky (1962) called spontaneous knowledge and belief, and when it then juxtaposes these with formal, usually school-based knowledge; and that such juxtaposition is required for the problem-solving that contextualizes and enables learning” (p. 84).

To reflect on their writing in their portfolios, students must learn how to see and evaluate their work. They must be taught how to develop standards for their writing and how to meet those standards. Most portfolio systems encourage formal written reflective pieces as a way to help students develop and articulate their understandings of their progress. Students commonly write one or more pieces in which they reflect on the quality of their writing, their writing process, and/or their growth across time. But simply being asked to write reflective pieces is not enough. The quality of the reflections students produce vary as well, depending on how well teachers teach students to reflect.

The portfolio project with the most fully developed ways of teaching reflection is Arts PROPEL (Camp, 1992; Wolf, 1988). Reflection is deeply embedded in almost every task students do. In the list of tasks in the previous section, students reflect on: (a) past experiences with writing, (b) the quality of varied pieces, (c) their writing process, (d) their reasons for selecting particular pieces, and (e) their changes as a writer across a year’s time. Camp (1992) writes about the teaching required to help students reflect in these ways. She reports that it took four years to perfect this system for teaching reflection.

Arts PROPEL teachers begin by modeling reflection and asking students to reflect orally before asking them to reflect in writing even on individual pieces. In the first months students collect all of their writing in folders, including all notes and drafts. They spend time reading their writing silently to themselves and aloud to one another, and listening and responding to others. In whole class discussions, teachers model questions students might answer to help them reflect: “What did you like best about the piece?” or “What in the piece would you like to know more about?” or “What did you most want your reader to get from this piece?” (p. 65). Students then carry the lessons they learned in class into small group meetings with their teacher and several peers or discussions with a partner. Teachers, meanwhile, reinforce the students’ responses with written comments focused on two points: “one thing that is done well in the writing, and one thing to focus on in future writing” (p. 66). The idea is to help students see the “strengths that can be built upon, and to think about next steps that are likely to yield a return for effort expended” (p. 66).

By October or November students are usually ready to move to the next level, the written reflection. At this point teachers ask them to answer two questions in writing, before the teachers respond:

What do you like best about this piece of writing?
Which of your writing skills or ideas are you least satisfied with in this piece? Why?
(p. 67)

Teachers prepare their students to answer these questions by using class time to read samples of the writing of past students and by discussing those students’ responses to these questions. Teachers illustrate the importance of providing specific answers but also show that one can take many perspectives in answering such questions and that no single perspective is right or best. Once the students answer these questions for their own writing, the teacher engages in a written dialogue with each student, taking that student’s answers as the starting point. This process is followed for every major piece of writing. From time to time teachers collect the responses of all the students in the class and share them so that students can see a range of ways to think about their writing and can increase their reflective vocabularies. Although not conceptually difficult to answer, these questions require students to be candid. Camp shows something of the range of student responses to these questions. The answers to the second question, especially the “why” portion, are especially interesting because they provide insight into the students’ “criteria for writing and into the ways that they apply them to their own writing” (p. 67):

I think the way the piece flows is the skill I’m least satisfied with. I think it could have been more smoothly written.

The arrangement of ideas and what I put down wasn’t exactly what I thought in my head. It takes away from the writing and what I’m trying to prove, because I assume people know what I’m talking about.

I really didn’t have a way to conclude this piece because I couldn’t find the right words that would make sense (p. 69)

Once students have collected a body of writing and have developed some sense of how to reflect on individual pieces, they begin to reflect in writing on their
past experiences with writing. Their teacher might illustrate how she would respond to such questions about her own writing as:

- What kinds of writing have you done in the past?
- What do you like to do most in writing?
- What do you like to do least?
- Where do you get your ideas for writing?
- What do you think is important to know about you as a writer? (p. 69)

Students then answer these questions for themselves.

As time goes on, students develop the skills to look back across a number of samples of their writing and to select pieces for their formal portfolios. They use the criteria they have been developing for judging their work first to select a piece of writing that is important to them and to explain their reasons for their selection. The following questions help them expand their perceptions about the piece:

- Why did you select this particular piece of writing?
- What do you see as the special strengths of this paper?
- What was especially important when you were writing this piece?
- What have you learned about writing from your work on this piece?
- If you could go on working on this piece, what would you do?
- What kind of writing would you like to do in the future? (p. 72)

Around March or April, students must apply more challenging reflective criteria to select a second set of writings for their portfolio, a piece they found satisfying and a piece they found unsatisfying. According to Camp, the contrast helps them “move beyond the view that one is either a good writer or a poor writer” (p. 73) and requires them to have a clear set of standards for their writing.

Toward the end of the year, students look over all the pieces they have written to select an additional piece for their portfolio, the free pick and to specify why they made the choice they did. Finally, they look back over their portfolios and respond to the following questions, or some variation, designed to help them evaluate their growth across the year:

- What do you notice about your earlier work?
- How do you think your writing has changed?
- What do you know now that you did not know before?
- At what points did you discover something new about writing?
- How do the changes you see in your writing affect the way you see yourself as a writer?

Instructional Methods and Learning Activities in Teaching Writing

Are there pieces you have changed your mind about – that you liked before, but don’t like now, or didn’t like before but do like now? If so, which ones?

What made you change your mind?

In what ways do you think your reading has influenced your writing? (p. 76)

Klimenkov and LaPick (1996) provide another well-organized case study of how students learn to assess themselves, this time with young children. Children in LaPick’s K–1 class develop goals based on their identification of what they can do now and what they can’t do yet. Children in Klimenkov’s sixth grade class set goals and learn to use scoring rubrics to assess how well they have met their goals. The younger students in LaPick’s class have an older student buddy from Klimenkov’s class. When they meet together, the older students show the younger students their best work and explain why it is their best. They also learn how to help the younger students choose showcase pieces and articulate what is good about the showcase work. Finally, they help their little buddies identify what they do well in school. Ultimately, these reflective meetings are designed to help the older and younger students get ready for a major conference in which, together with their teacher, they will share their portfolios and their progress with their parents.

The kinds of reflective activities embedded in the Arts PROPEL curriculum and those described by Klimenkov and LaPick help students develop standards for their writing as they come to see what they do well and what they still need to learn. These activities also promote communication between teachers and students as well as among students. Student reflections yield important information for teachers about how students understand what they are learning and provide a base for further teaching. Teachers can use the information found in students’ reflective writings to better meet the needs of their varied students. Finally, the understandings that come from reflective self-evaluation encourage students to take ownership of their writing and see it as something more than an assignment for school or a test of their competence. This kind of atmosphere helps writers build on the opinions and expertise of others.

Most students need a great deal of support to learn what is involved in reaching the high levels of reflection obtained by students in the Arts PROPEL project and in Klimenkov and LaPick’s classrooms; one cannot simply tell students to reflect and feel confident that high quality reflection will be the result. Unless students are taught to reflect and have numerous opportunities to do so, they will continue to rely on their teachers to tell them how they are performing and what they need to do to perform better.
Evaluating the Portfolio and Broadening the Audience

Classroom teachers who think about evaluating student portfolios need to answer two main questions: What kinds of useful information can portfolios yield? And what is the best way to get and communicate that information?

Some of the most productive portfolio evaluation schemes involve preparing students to assess themselves. If grades are given, they generally are negotiated between the teacher and student as part of teaching-learning dialogues (Klimenkov & LaPik, 1996; Murphy & Camp, 1996). Teachers can play a collaborative role, helping the student succeed rather than just judging the student.

Educators in Great Britain developed a large-scale formative assessment system specifically to provide a structure for gathering systematic information about the growth and development of individual students and for keeping records of that growth: the Primary Language Record (PLR). The PLR covers all areas of language—writing, reading, listening, and speaking. The main goal is to produce “information which would be directly useful in informing decisions about teaching and learning” (Barrs, 1990, p. 244). The educators who created the PLR developed a detailed handbook for teachers (Barrs, Ellis, Hester & Thomas, 1987). Drawing from techniques used in studies of child development and in studies inside classrooms, the PLR Handbook authors provide a matrix to help teachers keep organized notes on individual students’ uses of language, including the child’s behavior over time, patterns of learning, and the adequacy of the contexts for learning. Teachers also take regularly scheduled samples of each child’s language and analyze those samples in some depth (Barrs et al., 1987). For writing, students create portfolios, which become part of their cumulative record and which teachers study from one year to the next. Teachers routinely meet with each student for a 20 minute conference, during which the child reflects on him or herself as a language user and learner. According to Barrs, these conferences are useful not only for helping students learn to reflect on their learning but especially for understanding the particular backgrounds and needs of bilingual students. Teachers can discover the “bilingual pupil’s linguistic range and their literacy in their first language.” Barrs claims, that this information “will, in turn, illuminate their development in English” (p. 247). Besides the classroom-based observations and the input from the child, the PLR includes teachers’ and parents’ perspectives on the child’s development. These records of student progress provide ways of managing and organizing observations and can be shared with others in ways that help teachers establish common standards and increase their professional knowledge. The PLR “is multidimensional in that it facilitates observation on a variety of occasions, and over time in a variety of contexts using a number of different techniques of recording and assessment” (pp. 251–52).

Koelsch and Trumbull (1996), who introduced portfolio assessment to schools in the Chiricahua Apache School District on the Navajo Nation, also argue that “Portfolio assessment is especially appealing for use with ethnolinguistically nondominant students because of its ability to contextualize student performance and because of its flexibility to include a range of types of student performance” (p. 263). In the Chiricahua Apache School District, the “long term goal for schooling is that Navajo culture and the Navajo way of being walk side by side with non-Native culture . . . and ways of being throughout students’ K–12 education” (p. 265). Thus, portfolios can be evaluated for how well students exhibit both non-Native and Native communication skills.

When portfolios have been institutionalized as part of school, district or state accountability systems much attention is focused on creating valid and reliable scoring systems, with teachers commonly involved in scoring portfolios. In this way, many teachers have gained valuable experience in setting standards and learning to respond specifically to student portfolio writing. The scoring rubrics are usually keyed to standards which then are key to common features of writing, such as purpose; audience; organization; development of ideas and support for points; voice or tone; sentence variety and construction; language usage, mechanics, and grammar. Sometimes teachers borrow from the scoring rubrics created for large-scale evaluations and teach their students to apply them, in this way making standards explicit.

Mt. Diablo teachers introduced an interesting evaluation innovation in conjunction with school-level scoring of their students’ portfolios. Students get a letter at the end of each year in which a teacher or other adult comments on their portfolios. These letters are not written by their classroom teacher, so students gain a new perspective and a fresh response to their portfolios. Murphy and Underwood explain that the letters serve the goal of teaching in that they function “to give focused feedback on student writing, to remind students about what they had learned, and to make suggestions about what they might work on next” (p. 37). Some students even write back to the letter writers. Although the letter writing proved time consuming for the writers, who were mostly teachers, even after the formal state and district funding for the portfolio project came to an end, the Mt. Diablo staff considered the portfolios and the letters so worthwhile that they found creative ways to continue these activities.
CONCLUSION

Research and practice have shown that writing development is far from a linear process involving the acquisition of a set of discrete skills. Consequently, writing instruction must take into account the contexts for student writing—the context of oral language and culture, the context of purpose and audience, the context of personal meaning. Students must learn that being a writer means being a responsible part of a community, and this takes place in concrete ways in the best writing classes—when teachers relate written language to oral language, when they connect the teaching of varied genres to personal and social issues, and when they teach students how to be responsible for ideas and expression in their writing across time.

Among the numerous challenges of teaching writing in context is that context must be related to composing processes and written forms. In addition, the central contextual elements discussed here—of culture, language, purpose, audience, and content—occur in school contexts where issues of educational accountability and physical resources, to name a few, exert their own influences on how students and teachers can work together to achieve academic goals. Writing assessments, for example, do not always acknowledge issues of culture, process, or purpose. When such tests carry high stakes, they can dominate classroom life in ways that diminish instructional opportunities (Freedman, 1993; Loofbourrow, 1994), for example by forcing teachers to spend inordinate amounts of time drilling students on grammatical rules out of context, something that has been found not to support writing development (Elley, 1979).

Although we have written about a range of functions for writing in this chapter, writing is part of the teaching and learning of most school subjects, since it can function to help students remember, synthesize, and process complex information of all kinds. For this reason writing can play an important role in learning activities in most of the disciplines represented by chapters in this volume. We conclude by suggesting that the type of meaningful writing instruction we advocate, based on our readings of research and practice, can be strengthened by connections across the subject areas in school—an effort this volume could foster.

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REFERENCES

Instructional Methods and Learning Activities in Teaching Writing


TEACHING AND LEARNING MATHEMATICS: HOW INSTRUCTION CAN FOSTER THE KNOWING AND UNDERSTANDING OF NUMBER

Mary Kay Stein

INTRODUCTION

My charge in writing this chapter was to provide a systematic review of the classic teaching methods and learning activities known or thought to be effective for the portion of mathematics broadly referred to as "number." According to the recently released Principles and Standards for School Mathematics (PSSM), all of mathematics, from algebra to geometry to data analysis, is strongly grounded in number (National Council of Teachers of Mathematics, 2000, p. 32). I will confine my review to grades K-8, however, because the pedagogical emphasis on number tends to be considerably greater during these years (National Council of Teachers of Mathematics, 2000). For the purposes of this chapter, I include the following in my treatment of the teaching and learning of number: number sense (reasoning with and about numbers); properties of and operations with integers and rationale numbers; ratio and proportion; and representing number in concrete, graphic, and symbolic forms.

My focus is further refined by the charge to overview what is known or thought to be effective in teaching mathematics for "the development of student understanding of its big ideas, appreciation of its value, and capability and