

DOCUMENT RESUME

ED 355 472

CS 011 219

AUTHOR Grisham, Dana L.
 TITLE Teacher Epistemology and Practice: Enactments in the Elementary Language Arts Classroom.
 PUB DATE Dec 92
 NOTE 37p.; Paper presented at the Annual Meeting of the National Reading Conference (42nd, San Antonio, TX, December 2-5, 1992).
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS Classroom Research; Constructivism (Learning); Elementary Education; Elementary School Teachers; Reading Attitudes; *Reading Instruction; Teacher Attitudes; *Teacher Behavior; *Teaching Methods; Whole Language Approach; Writing Attitudes; *Writing Instruction
 IDENTIFIERS *California

ABSTRACT

A study investigated how literature-based reading/language arts materials were being used in two "exemplary" third/fourth grade combination classes, the influence of teacher epistemology on classroom instruction, and whether teachers were enacting the whole language emphasis mandated by the state. One of the two participating teachers had over 20 years experience and the other had 3 years experience in a large southern California urban school district. Data sources included: classroom observations and videotapes of the language arts segments of the school day 2 days per week for 3 consecutive weeks; interviews with six students from each class; and reading and writing attitude measures. Results indicated that: (1) each teacher had coherent theories of how reading should be taught, and used theory to guide her practice; (2) both teachers appeared to be integrating the language arts as envisioned by California's English/Language Arts Framework, but the textbook was the preeminent authority; (3) fewer worksheets and workbook assignments were given, and more authentic skills-based assignments were generated, than has been shown to be the case in past studies; (4) both teachers felt free to construct curriculum for their students; (5) reading and writing attitudes of the students were generally positive; and (6) collaborative learning was common in both classes, but there was still much lecturing and recitation. Findings suggest that both of the teachers studied have epistemological stances that are far from a constructivist epistemology of teaching and militate against the tenets of whole language. Two teacher-generated figures representing their conceptions of classrooms, and a preliminary model of teacher epistemological stance are attached. (Contains 62 references.) (RS)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED355472

**Teacher Epistemology and Practice:
Enactments in the Elementary Language Arts Classroom**

**Dana L. Grisham
University of California, Riverside**

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Dana Grisham

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

**Paper presented at the Annual Meeting
of the National Reading Conference
December 2-6, 1992
San Antonio, Texas**

05011219

Introduction

This study was conducted to answer the following questions: (1) How, and with what intent, are literature-based reading/language arts materials being utilized to enact instruction in two "exemplary" third/fourth combination classes? What is actually transpiring in the classroom? How is the language arts class structured? What materials and student/teacher interactions are in evidence? (2) To what extent has teacher epistemology influenced the teaching of the language arts within the context of a whole language emphasis? What is the teacher's theory and belief with regard to language arts and how is this expressed in the classroom? Is the structure of the language arts classroom consistent with the teacher's stated intentions in teaching the language arts? (3) To what extent are teachers enacting the whole language emphasis mandated by the state and what are the nature of the changes which have occurred?

Language instruction in California changed substantially in 1987 with the implementation of a new English/Language Arts Framework, and in 1989 with the adoption by school districts across the state of literature-based reading series which replaced basal reading series. An examination of the Framework, and of one of the state adopted series (Houghton-Mifflin, 1989) reveals substantial differences in the theoretical basis of the approach to teaching literacy skills, and in the intended strategies for reading and writing instruction. Specifically, the Framework mandates an integrated language arts program where reading, writing, speaking, and listening are parts of a whole language approach emphasizing communicative competence and higher order thinking skills. The traditional structures associated with reading instruction, such as readiness programs, ability grouping, seatwork, and emphasis on hierarchical skills instruction have been altered in the current curriculum materials.

The direction and amount of that change varied with each of the two teachers in this study, and is the subject of this paper.

Theoretical Baseline

Language, Reading, and Writing

Psychologists' studies of children's acquisition of language reveal that language is internalized by an individual in *transaction* with a particular environment (Rosenblatt, 1988). This transactional theory of human communication furthered a new emphasis on the wholeness of language and on the integration of the language arts: listening, speaking, reading, and writing. In the move from behavioral psychology into cognitive psychology, researchers began to assemble an idea of learning theory in which all learning was incorporated into a holistic schema, or classified in interrelated categories of concepts that organized the objective world into units of generalized event knowledge for the individual (see, for example, Piaget, 1975; Bruner, 1983; Vygotsky, 1978).

Whole language theorists thus view literacy understandings as occurring within a natural environment of language use (Goodman & Goodman, 1979). That is, written language develops along with oral language, because literacy is an extension of the potential of language to express meanings.

Both reading and writing consist of the construction of texts, in which there is a reader-writer relationship or contract. The writer intends to communicate meanings through the medium of written language with its conventions, while the reader uses the text as a sort of blueprint or "set of cues" to access the schemas needed to comprehend the writer's message. Both readers and writers bring schematic meaning

to their text and learning occurs through successive refinements or "approximations" (Tannen, 1985).

Reading may also be seen as a form of problem-solving involving thinking skills, with writing as an enabler for learning. The write-to-learn theorists visualize a learner interacting over text through writing (see, for example, Flower, 1987; Flood, 1986, Marshall, 1984). Vygotsky contended that a child's discovery of written symbolism is a major step in the development of thinking (Vygotsky, 1978).

Reading and writing require the learning of a set of conventions that do not exist for oral language. Research appears to indicate that these conventions are best learned in a meaning-centered approach. Such an environment would provide flexibly structured opportunities for teachers and students to exchange views about their own and professional texts within a community of learners that support the writing and reading efforts of students and teachers alike, while situated in a context that emphasizes the purposeful construction of meaning (Rosebery, et. al., 1989).

Students should be encouraged to interact with one another over their reading and writing (Teale & Martinez, 1989; Tierney, et. al., 1988; Dyson, 1987; DiPardo & Freedman, 1987; Freedman, 1987). The "interactive" orientation to reading stresses the combination of reader, text, and context to comprehension. Both reading and writing are used to conceptualize and reconceptualize what the student knows, so that the processes of reading and writing are deeply connected activities of language and thought (Langer, 1982).

"Knowing That" vs. "Knowing How"

Students must "know that" as well as "know how" (Ryle, 1949). This dialectic between subject matter and process has been the subject of an ongoing debate among educators for a very long time. For each "way of knowing" there is a "way of

doing" (Greene, 1986). The teaching of the reading/language arts will depend upon the conception of the teacher of how the student learns, and of how knowledge is encompassed. Two teachers with different conceptions will teach differently, and thus it is important to know how the teacher balances content versus process.

All students should be provided opportunities to acquire and test ideas and information in "active pursuits" that typify important social situations in order to see the "cross connections" between subject matter and the broader and more direct experiences of everyday life (Dewey, 1916). Nevertheless, educators must also respond to "market demands" of parents who insist on students mastering "basic skills, or accumulating "facts," without much knowledge of or regard for education's accepted frameworks of knowledge or rational norms (Greene, 1986).

Constructivist and Transmission Teaching

Constructivism requires that teachers extend freedom of choice to students, to create the climate where they may feel free to raise their own questions and spur their own development. Teachers must possess a sense of agency, and must be able to recognize that meaning and reality are socially constructed and capable of transformation. Teachers must learn to examine their beliefs about knowing, teaching, and learning in order to change their "culturally constructed ideological systems (O'Loughlin, 1988; Duckworth, 1987)

In contrast to the constructivist stance is the transmission model of teaching (see, for example, Miller & Seller, 1987). It is hypothesized that most teachers who subscribe to the transmission model of education perceive the teacher as the expert who must "tell" the student who needs guidance and management. This centralist teacher position is usually accompanied by a "positivist" belief about the external nature of constraints, and a technical conception of curriculum in which knowledge is

seen as the successful replication of the symbolic structures used to represent the teacher's knowledge. Usually the transmission model is accompanied by a belief that there is an inherent student characteristic that prevents some students from being successful academically. A submissive, uncritical, and compliant role for students is seen as the norm (Taylor, 1990).

Classroom Activities and Interactions

The way that teachers structure interactions in the classroom influences the type of learning that occurs. The study of classroom structures on learning queries how events in classrooms are arranged and interrelated in time and space to affect learning. It has been found that students and teachers' attention in classrooms is often dominated by concerns for maintaining order and finishing assignments (Doyle, 1984).

In a recent article (1991), Brophy and Alleman reviewed the research with regard to activities as instructional tools and found that there was not much material of direct relevance, theoretical analysis, or empirical information on some very fundamental questions about instructional activities. They point out that intended outcomes of prescribed activities will not guarantee the desired learning outcomes. They look for activities that focus and limit the breadth of coverage, so that included content may be developed sufficiently to ensure conceptual understanding. The content should be organized into networks structured around powerful ideas, and instruction should emphasize the relationships among these ideas. Along with instruction, students should receive many opportunities to process information and construct meaning through classroom discourse and learning activities (Brophy & Alleman, 1991).

Caine and Caine (1991) also stress the "connectedness" of learning, recommending that educators aim for "orchestrated immersion" and visualize the

teacher as a designer of experience, encouraging complex, real projects of personal interest to students, providing social relationships and a sense of community in the classroom, and providing thematic teaching. They also speak to the necessity of making the classroom a safe environment where students will not "downshift" to less complex thinking in self-defense.

Activities which encourage collaboration among students aim to reduce both ambiguity and stress, as well as building on and enhancing the capacities of students to communicate and collaborate. A large body of research on cooperative learning (see, for example Slavin, 1988; Johnson, et. al., 1981; Johnson & Johnson, 1984; O'Donnell, et. al., 1988) posits that cooperative learning generates group relationships in order that the group support its members and provide the student with a supportive environment wherein thinking and learning activities are shared.

The idea of the instructional conversation (Gallimore & Tharp, 1989) recognizes the social nature of learning, and redefines teaching as "assisting performance." Based upon the work of Lev Vygotsky and his Zone of Proximal Development, activity settings in the classroom should maximize opportunities for co-participation and instructional conversations with the teacher. Schools should provide more activity settings with fewer children, more interactions, more conversations, and more joint activity.

Finally, the classroom milieu itself has been found to have an effect on the learning activities. For example, desk arrangement, rather than student ability, student interest, observer bias, or other architectural features, significantly affected student behavior (Rosenfield, Lambert, & Black, 1985). Desk arrangements affected interactions between students; seating desks in circles facilitated on-task response suggesting more active participation in interactions. Arrangement in clusters was next most effective for promoting interaction, and rows were least effective.

Method of the Study

The researcher contacted the curriculum specialist and director of mentor teachers of a large Southern California urban school district in order to find two "exemplary" fourth grade teachers. Demographics of the district reflect a wide spectrum socio-economically and ethnically (43% Caucasian, 10.5% African-American, and 35.5% Hispanic).

The first teacher, who will be referred to as Mary, has been a teacher at Hillside school since 1977, has been teaching for over twenty years, and is in her early sixties. She is a district mentor teacher for the language arts, and has a firm commitment to teaching thematically around children's literature. She has a certificate in Gifted and Talented Education, attended various inservices and staff development over the years, describing herself as "a lifelong learner." The school in which Mary teaches is a large one, containing 894 students K-6. At this school there are four Special Day classes, a Chapter One program, two full time bilingual teachers and a small GATE program. There are eight mentor teachers on the campus. Mary's class is a third/fourth grade combination with a GATE cluster in it.

The second teacher, who will be referred to as Nancy, has been a teacher at Maplewood school for all three of the years she has taught. She was a recent graduate of the local university who completed her student teaching at Maplewood, and has never taught elsewhere. She came highly recommended as "a teacher whose test scores are improving yearly" and a teacher who "knows the language arts." She has a reputation for innovation.

Maplewood has a population of about 820 students, of which about one-third are Hispanic, the largest ethnic minority. The school is one of seven in the district who are piloting a year-round schedule and is located on the "wood" streets in a multi-generational neighborhood of middle to upper middle class families, but busing from

other areas brings other ethnicities to the school. There are five bilingual classes at all grade levels and four GATE classes. There is a high potential program for the linguistically different and a Resource program. There is no Special Day class and no Chapter One program. Nancy's class is also a third/fourth grade combination class, but the student population is very different from Mary's. Nancy has no identified GATE children, and has some non-readers in her class. There are both LEP and NEP students in Nancy's class. She also has five students who are involved in the Resource Program, and two in a speech class.

In November and December 1991, I interviewed teachers and principals, and arranged to visit classes to observe and videotape the language arts segment of the school day two days per week for three consecutive weeks. I made arrangements to interview six students from each class, a stratified random sample from those students returning a parent permission letter. Returned forms were sorted into "low," "medium," and "high" ability piles and two names were picked from each pile to be interviewed.

Additional data were collected. First all students in each class were given (1) the Knudson Writing Attitude Survey. There are two normed versions: one for Grades 1-3, and one for Grades 4-6 (Knudson, 1991, 1992); (2) the Elementary Reading Attitude Survey (McKenna & Kear, 1990), normed for Grades 1-6; (3) the teacher provided copies of lesson plans and curriculum materials, especially where those curriculum materials were teacher-made or an augmentation to district provided curriculum; and (4) the teacher was asked to provide a "cognitive map" of her conception of the classroom.

The audiotaped interviews of teachers, principals, and students were transcribed in full so that they could be referred to easily during data analysis. The surveys on reading and writing attitudes of students were collated and compared statistically to determine whether significant differences existed between the two classes.

The primary method of analysis of the data is interpretive. Where the data suggested themes or insights, specific evidence is cited. Triangulation of data from sources such as lesson plans, cognitive maps, interviews, observations (field notes and videotapes), Framework, district and state mandated curricula, and supplementary curricula supported inferences made from the data.

Language Arts Activities

One major component of the classrooms that I observed was the lack of ability grouping for reading/language arts instruction. Each classroom had virtually every child reading or interacting in some way with the same reading material. In Nancy's class, one low-functioning student went to a second-grade class for reading instruction, and several RSP students were "pulled out" for special instruction, but the rest of the class read together from the same material. In Mary's class, there were no regular pull outs, and regardless of skills level, all children read the same material.

Both classrooms had access to the same materials purchased by the district. First, there was the Houghton-Mifflin Literature Series, both the third- and fourth-grade levels. Both teachers used the series, selecting stories they liked from either level. Mary had just finished reading "Molly's Pilgrim" from the third grade reader when I came to observe, and Nancy was beginning "Annie and the Old One," also from the third-grade reader when I arrived in her classroom. Both stated that they selected from both levels.

Both teachers also augmented the basal series with tradebooks. There were class sets of four tradebooks which were part of the Houghton-Mifflin curriculum, but they also used other tradebooks. Nancy particularly liked the shorter stories which she shared with students since completing a book was very "motivating" for them, and she used a lot of poetry, both her own, and that which the children brought in.

Mary used other books as well, and her intent was to find books to augment the themes she used in her classroom. For example, with "Molly's Pilgrim" as the centerpiece, Mary extended the Thanksgiving theme of pilgrims to a multicultural lesson. She also used a book, How Many Days to America, a story about people on a Caribbean island who flee political oppression and come to America on a boat, to reinforce the pilgrim theme. Both teachers used activities to maintain student interest in reading material and themes. Descriptions of a typical day in each classroom have been omitted due to space considerations.

Enactment of the Curriculum

Teacher Theories

The purpose of theory is to stand above and guide practice (Elbaz, 1981). Theory is seen as a broad, general, comprehensive conception of a topic. The first interview question put to both teachers in the study was to ask them to explain their language arts and reading theories. Mary used the words "belief" and Nancy used the words "attitudes" when their theories were requested.

Mary's theory of reading begins with "words." Mary answered, "I believe that all children have the right to learn their vocabulary before they ever start a story, so that they can feel comfortable with the story and familiar with the words." Mary's students do lots of things with words; they get a list, they learn the words phonetically, they chorally read the words, they spell the words, they act out the words, they draw pictures of the words, use the words in a story, to name a few. After that, Mary and her students read the literature pieces by various methods, and then begin the process of analysis, sometimes by dialectical journals, sometimes by teacher questioning. Mary's goal is for her students to "know the depth of the story--what it really is trying to tell us."

Mary prefers doing this orally because she can individualize instruction by directing questions to specific students; higher ability students get harder questions, lower ability students get easier questions. Mary also feels that by listening to and sharing with each other the students learn more.

Mary also uses a daily oral language exercise, in which her students edit sentences she provides in order to focus on grammar and usage skills. This "DOL" is a district-wide requirement which varies in the way the two teachers use it.

Nancy, in contrast to Mary, was trained in the whole language approach during her recent pre-service classes, "...well, I was trained at the University three years ago, and I came into teaching under the whole language philosophy, and I believe strongly in...first of all, making reading enjoyable and letting students know that it's a fun experience." Nancy felt that during her first two years of teaching she didn't focus on skills enough, so that she has gone to a daily oral language lesson for her students, and in fact purchased several grammar and phonics books to teach herself grammar skills, and to use in her class.

Nancy also uses many student activities to teach reading and language arts. As much as possible Nancy uses the meaning centered approach from whole to parts and attempts to incorporate other curricular areas into her language arts program, but Nancy feels that the great disparity of abilities in her class mean greater curriculum differentiation and thus she finds it more useful to "start with the details and build up to a larger picture, and then pull it all together."

Both Mary and Nancy had been to Integrated Thematic Teaching (Kovalik, 1989) inservices through their district, but neither were using the method to any great degree. Rather the "brain-based" teaching and the "interconnectedness" of learning (see also, Caine and Caine, 1991) was an influence that had come from the district level, much as had the Megaskills prominently displayed in both classes--also a district mandate, and the fact that both teachers also mentioned the "multiple intelligences" (Gardner, 1988).

Mary had been to a week-long training called Assignment to Assessment which was sponsored by the County Office of Education, and was one of the state-sanctioned staff development efforts attendant upon the 1987 Framework adoption. Assignment to Assessment stressed teaching literature by teachers constructing multidisciplinary units around core pieces using the "into, through, and beyond" model of teaching literature. Teachers were thus in charge of constructing their own curriculum. Nancy had never been to this workshop, nor written a unit, but she was familiar with it, having used some materials borrowed from another teacher.

Despite her being trained in the whole language philosophy at the university, and stating she liked to "tie reading and writing together," Nancy had become more "conservative" in her approach to reading and language skills. While espousing a meaning-centered approach, with this year's class Nancy actually taught from a skills orientation ("start with the details"; "work with phonics and still putting together sentences"; "I try to really build step by step, and make things very clear and explicit so that ...we reach everybody"; "I read to them a lot because there are non-readers.") Nancy's interview indicates she is child-centered, and at various times, she talks about self-esteem building activities such as Tribes (Gibbs, 1987), or emphasizing the social skills in the class, the curriculum differentiation to give everyone a sense of success, and the effort to motivate children by reading having them complete "a whole book."

Mary is a much more experienced teacher than Nancy, and somewhat more articulate about her beliefs and her teaching practices. Mary also has differentiated curriculum, in an informal way through her questioning practices. But Mary's class contains no LEP or NEP students, and does contain the GATE cluster. Mary's concerns also seem more broad than Nancy's. Mary is concerned that "students know the story...what is it trying to tell us." Mary tries to give children choices where possible, such as in the selection of pieces to dramatize, the characters to read orally, and the overall emphasis on oral language. Mary "believes" in whole language,

"I think...I just feel that children...to appreciate something, they have to hear it...and they have to see it, in print. They have to be able to write it themselves. What better way is there to understand a metaphor than when you're reading to a class and you find those metaphors and pick them out. Its like instantaneous teaching! (laughs)"

Mary embeds the skills within the literature, beginning in September by choosing the books she will use, then going through the district-mandated course of study to list the skills she is responsible for teaching, and marrying the skills with the books. Then she ties in the writing, art and social studies. Mary finds this thematic process easy, having written "tons of units" since she finished Assignment to Assessment.

Principal's Theories

The principal's stance towards language arts learning was reflected in the teacher's talk about practice. For example, Mary's principal stated, "...we have a very active professional group--they're very eager to stay...in touch and aware of what's happening, what's new, what's on the cutting edge, but they're not faddish." Thus, we see Mary "easing into" Kovalik's method. Mary's principal sees the mission of the school as providing an excellent beginning to lifelong learning. Mary is a lifelong learner who has continued to improve her teaching practice through constant professional development activities. The principal doesn't prescribe a certain way of teaching, but encourages teacher "artistry." Mary feels free to create her own curriculum. The principal embraces language experience, whole language, literature-based language arts instruction and so does Mary. The principal stresses the joy of learning, and so does Mary. The principal states, "...we help teachers wed the skills into the whole language approach..." and we have already noted that that is exactly

what Mary does to plan her year. The principal's concerns are broad, as are Mary's.

When asked what she hoped for the children in her school, the principal stated,

"I want them to come away with a lot more than reading, and writing, and arithmetic. I want them to be able to assess...a problem, think it through, find a solution. I want them to know that there's more than one way to get to a goal. I want them to be able to hear information and decide what sense that makes to their lives, or whether or not they trust the source of that information...."

At Maplewood, there is more focus on academics. Nancy speaks of phonics, grammar, skills, and reading. When she speaks of reading poetry, it isn't the content (meaning) she refers to--it is the reading experience for academic purposes. Nancy's principal speaks in terms of youngsters and their parents as clients, and as serving up a "rich smorgasbord of curriculum" in an eclectic manner so that all children will learn; "every child is entitled to the base curriculum...of course...and those extra little enriching things." Nancy talks about the basic skills and how best to teach them. The principal speaks of the "tragedy" of many students who don't come to school well prepared for learning. Nancy talks of her LEP, NEP and Resource students, and how difficult it is for them to get the basics. The principal says, "...well, I believe in structure, I believe in task analysis, I believe in step by step learning." Nancy says, "...I generally like to start with the details and build up to a larger picture, and then pull it all together." The principal explored the topic of phonics at some length. Nancy has the children sound out the month "December."

Language in the Classroom

Both teachers used oral language extensively in the classroom, accepting its importance, and both allowed quite a lot of student verbalizing over content. Both recognized the "integration" of the language arts.

However, they were still very cognizant of the authority of the textbook. Each asked questions of their students for which some form of text was the final authority. The teachers wanted students to get the "right" answers. For example, Mary states, "Some of them don't write as well, some of them don't read as well. But if we're all in here together, and we use everybody's strengths we all can get *it*" (emphasis added). During her vocabulary lesson on "Annie and the Old One" Nancy never fully accepted paraphrases of word meanings from the students; instead, the students who were praised most highly were the ones who read the definitions *from the Glossary*. It is certainly understandable that teachers would want their students to use books as a resource for meaning making, but one can also speculate that over time, such reliance on text as final authority can have unintended consequences.

In her lesson plans, Mary notes such language development aspects as "response" to literature, discussions of texts, sharing of ideas, "rap" poems, Kindergarten "book buddies," collaborative work, readers' theater, etc. In her interview, she talks about how important it is for students to share "beautiful little pieces" and how she would rather do reading comprehension evaluations orally. She feels it is positive for the "children to learn from each other."

Nancy feels children learn in different ways, "...the seven intelligences, you know, the different styles, and modalities...that comes into play." Yet, she also subscribes to the idea of oral interaction between students. She mentions paired reading, role-play activities such as Masterword Theatre, singing, reciting, choral reading, response to reading, and cooperative learning.

Reading and Writing

Both Mary and Nancy accept the idea that reading and writing are related language activities. In my observation of their classes, I saw how that relationship "played out" for their students. If one reads, then one writes about what one reads.

Durkins found that there was little variation between teachers' use of basal reading materials, that there was very little comprehension instruction going on, that the "indiscriminate" use of workbooks and worksheets dominated the reading class time (Durkins 1979, 1981, 1984). The schools in which I observed no longer possess reading workbooks or worksheets. Though those are still part of the basal package, the district did not purchase these components. As Nancy stated, "And our school did not purchase the...consumable books--you know, the journals, the writing, and stuff like that." The only worksheet I saw in Nancy's class was a teacher-made story map which the students filled in. Nancy's students also kept a Literature Log in which they wrote various assignments. Nancy also indicated in her interview that she bought activity books in grammar and phonics for her students' use, but I didn't observe any of these being used. In Mary's class, I saw no worksheets at all. Most of their written work (generated individually or as a class) was kept in a large black three-ring binder.

The nature of the reading and writing assignments needs to be examined. Rosebery, et.al. (1989) indicated that reading and writing require the learning of a set of conventions best learned in a meaning-centered approach. While some writing activities could be described as similar in kind to worksheets (DOL, for example), there is much more authentic and meaningful writing going on. For example, in Nancy's Writer's Workshop, some students did handwriting dittos, but the majority of her students chose to do some form of expressive writing, such as letters, or poems and stories of their own. The teaching of comprehension skills gets much more attention in these two classes than Durkins' work would suggest. Mapping, Diagramming, and

Clustering were favored techniques used by the two teachers for comprehension instruction. They also both used story maps, and connected texts, such as predictions and summaries. Writing was extensively used to support reading.

As far as reading is concerned, I believe there is cause for more concern. One major finding of the study is that there was not much reading going on, especially silent reading. Only in one instance in Nancy's class was there a directed silent reading of literature material, and this episode lasted for only 10 minutes, during which time they were directed to silently re-read what they had covered the day before orally, and then to answer two questions. I did not observe the SSR (Sustained Silent Reading) in Nancy's class, but her lesson plans and interview suggests that students could self-select materials and read for one-half hour at the end of the day. Without observing this directly, I would be reluctant to claim that students actually read during this period. As for oral reading, there were several instances of that in Nancy's class. First, there was the oral reading of "Annie" by most of the students, and then the repeat "ear to mouth" reading. Some of the students read reference books to answer the inquiry question (Example: What is the state bird of Idaho?) during DOL, but most did not.

In Mary's class I observed no silent or oral reading of the literature pieces by students. This could be an artifact of the time which I observed, but I was there two days per week for three weeks, and never observed children reading in a literature book. Instead, Mary read to them. They did, of course, have to read the things that they wrote. Mary also had an SSR period twice during my observations. Once she forgot to do it, though it was on the chalkboard and in her lesson plans. The second time the students were not reading silently--they talked to each other throughout the period, many students conferring over books such as Where's Waldo or elaborate pop-up books, while Mary walked from table to table checking homework assignments. There was one instance of genuine silent reading in Mary's class; this was the "Encyclopedia

Search" which took place with half the class while the other half was at computer lab. During this time each child selected an encyclopedia and spent about 15 minutes reading in it. During this time, it was relatively quiet, and the students did read. Mary circulated to assist the readers where necessary, frequently discussing the reading with them. Later the students orally shared and discussed what they had read. I believe one reason that this was so effective was that there were only fifteen students in the room. Children also read at home and prepared book reports.

If no emphasis is placed on silent reading, will children learn to read independently? What is the result of instruction where everything happens orally?

"Knowing That" vs. "Knowing How"

Previously I outlined that instruction must strike a balance between product and process. Both of the teachers were attempting to balance skills and meaning. Mary appeared to be moving toward a more process-based model of instruction in which she gave choices to students, and attempted to be a facilitator rather than an authority on everything. Both Mary and Nancy were unafraid to state that they did not know something to students. However, only Mary deferred to a student's knowledge on occasion while most of the time both Mary and Nancy deferred to the authority of texts.

Mary, in particular, tried to base her instruction on student experiences. She mentions the use of "realia" in her interview, and I observed that she brought in (and had students bring in) artifacts and information that would provide authentic experiences from which the children could construct meaning. For example, the immersion of students in the Caribbean culture, music, food, art, family, geography, etc. provided a wealth of genuine experiences.

Nancy also tried to base her instruction on experiences, as exemplified by the weaving the students did in response to "Annie and the Old One." But Nancy was

always more concerned with the academic deficits of her students, and spent more time trying to increase their skills through didactic instruction and practice. Connections in learning were stressed less.

Classroom Activities and Interactions

The way that teachers structure interactions in the classroom influences the type of learning that occurs (Doyle, 1984; Clark & Peterson, 1986). In a teacher centered class, the teacher needs to get and maintain control and cooperation of the students.

Mary's class was structured around "networks of powerful and interrelated ideas" (Brophy & Allemans, 1991), and whenever possible, Mary emphasized the connections. For example, when she was discussing Thanksgiving and Sukkos, she related the pilgrim theme forward and backward in time, and across cultures. She connected the theme to social studies, geography, art, and music. She asked students to think of ways to connect ideas, and they frequently did. On one occasion, for example, after reading about the boat people, a student connected their thanksgiving and freedom with Martin Luther King's Dream Speech. Mary was enthusiastic about this kind of thinking. Mary often talked to her students in a conversational tone (Tharp & Gallimore, 1989)

Somewhat in contrast, Nancy spent a great deal of time trying to "keep the lid on" a very volatile class. When she attempted to allow students more freedom in the class, they tended to get out of control; therefore her class appeared less creative than Mary's. Mary had no visible discipline system. Nancy had several: colored cards (similar to assertive discipline names and checks on board, with consequences); "road" signs she used (red for quiet, green for collaboration); the PAT or personal activity time that students could earn; the cooperative group behavior points; the stopwatch (which went with the PAT).

Nancy's reliance on written work could come from several sources: first, the composition of the class; the academic focus of her instruction with more emphasis on reading and writing skills; the pacing of the DOL. In fact, Nancy did give all the answers and more than a few students waited until everything was answered before they wrote the DOL. There were fewer activities in Nancy's class, and the students appeared unmotivated in several cases. In order to keep the class calm, Nancy often talked very quietly and unassertively. This resulted in something of a monotone and a slower pace of instruction such that some students "tuned out."

Student Attitudes

Students in Mary's class had more positive attitudes towards reading and writing than did students in Nancy's class ($p < .05$). This could be due to teacher effect, but also reflects the differing student populations in each class. The students in Mary's class were more able academically than the students in Nancy's class, and since success tends to lead to positive affect, this could account for a large part of the variance. Nevertheless, this does indicate to some extent that differences in program may lead to differences in student attitude towards literacy learning.

Girls had more positive attitudes than boys towards reading ($p < .001$) but there was no difference in attitude toward writing by sex or grade level, contrary to Knudson's findings that attitudes got less positive as students got older (means: 3rd grade 66.4; 4th grade 67.3 in writing). Nor were there significant differences in attitudes toward reading (means: 57.4 for 3rd graders; 58.8 for 4th graders). One interpretation of these findings is that grade level differences in attitude largely disappear in a combination class.

The interviews with Mary's students were significantly longer than the ones with Nancy's students and Nancy's students needed to be prompted far more than did

Mary's students. Mary's students were far more verbal, far more eager for the interviews than were Nancy's students. The answers given by the students in both classes portray reading primarily as a school activity. Five out of six students in Nancy's class identified reading as a "school" activity. Only one student characterized reading as something to be done outside school. In contrast, only two of the students in Mary's class characterized reading as a "school" activity, while three mentioned outside reading specifically.

Strategies for reading (and constructing meaning) mentioned in the interviews were: Sounding it out (13); ask for help (11); get it from context or skip it (9); splitting words into parts (2 in Nancy's class only); look on spelling list or in dictionary (4 in Mary's class only). The fact that sounding the unknown word out is the most widely used strategy belies charges that phonics is not being taught in the schools. Nancy's students mentioned sounding words out twice as often as did Mary's (9 times vs. 4 times), and observations and interviews reveal that Nancy put much more emphasis on phonics instruction and word attack skills in the classroom.

Teacher Epistemology

Teachers' thought processes and stance towards "knowing" are thought to greatly influence teacher behavior in the classroom (Clark & Peterson, 1986). Both Mary and Nancy had definite ideas about how reading should be taught. Their classroom conceptions show that the teachers espouse a teacher-centered classroom. We have also already talked about the idea of an external authority embodied in the text. O'Loughlin (1991) sees the beliefs of teachers as the result of their own long immersion as students in the culture of schooling, such that they espouse authoritarian and didactic ways of teaching.

William Perry (1970, 1983) created a continuum of epistemological stances. Position 5 in this scheme is where the individual comes to know that the world is relative, contextual, and that Truth (with the capital letter) really does not exist; that life is a process of making choices or commitments based upon reflection and evidence. It seems evident that no teacher can espouse a constructivist point of view unless they have left the dualist stance behind and moved toward a process-centered epistemology.

The process-centered epistemological stance is further explored by Belenky, Clinchy, Goldberger, and Tarule (1986) as they examined women's ways of knowing. This complementary view of epistemology specifically queries how women address the questions of truth and authority. The developmental mode known as "Procedural Knowledge" is where a conscious, deliberate, systematic analysis is undertaken by the individual to get at the nature of truth and authority. As in Perry's Position 5, knowledge is viewed as a process.

Based upon the evidence in classroom conceptions, interviews, and observations, neither teacher can be identified as having a constructivist epistemology. Both teachers characterize themselves as lifelong learners, and both say that they are growing and evolving as teachers. What kind of change is occurring?

Nancy's classroom conception (see Appendix 1) is very linear in nature. Arrows show the relationships between writing, reading, social studies/science, and math, with activities written between. There is overlap, but it is all very tidy and clean, reflecting none of the complexity one might come to expect from a person who sees no absolutes. Nancy's mission is also clear and simple: she must equip her students with the academic and social skills to succeed in life. This is the concern which stands out in her interview: "I think that there are times when its very helpful to give a graphic organizer. You know, start with the big picture and then go down to the details. Um, generally I like to start with the details and build up to a larger picture, and then pull it

all together." Because of the volatility and low self-esteem of her class, Nancy says, "I try to really build step by step, and make things very clear and explicit so that...um, we reach everybody." This instruction is often linear and hierarchical in nature, and proceeds from the authority of the teacher. It contrasts markedly with her assessment of her role as a teacher: "I think I'm a facilitator...of their learning. I create an environment...where....I hope....where learning is possible. I bring in opportunities for them. I'm also there to guide and instruct, particularly ...social interactions."

In the observations of Nancy's class, there was a strong academic skills focus with a great deal of pencil and paper work. There was a lot of lecture, and IRE (inquiry by teacher, response by student, evaluation of response by teacher, repeat of pattern). This is characterized by White (1988) as leading the students to comprehension, but it is also an effective way of maintaining control over the students, a position in which Nancy often found herself.

Nancy's practice was consistent for the most part with her belief system. The practical and complex nature of teaching allows for inconsistencies to exist between what is stated and what occurs. Nancy felt her practice was also affected by the composition of her class. It is also helpful to remember that our beliefs are often pictures of the ideal that rarely exist in day to day realities.

Mary's conception of the classroom (see Appendix 2) is also linear, but contains some concentric squares and a circle of subject matter that connects all learning in some way. Mary's is more a conception of teaching than a conception of the classroom, and reflects her changing stance towards her profession. Mary is very sure of her beliefs and states them without hesitation. She also says that she bases her instruction on "the kinds of children that I have..." "Not all children think the same way."

Like Nancy, Mary also sees her mission as providing a "safe, structured" environment where children can learn, but she sees the students as having strengths to be used. She also wants children to be successful and increases her expectations

throughout the year. She likes to work with cooperative groups, and she readily admits in front of her students that she doesn't know everything. She asks them for their expertise from time to time. She describes her role as, "...as kind of a...a teacher, and a mother, and a...partly a leader. A resource...and its OK for me to say I don't know. Let's find out."

Conclusion

To summarize, each teacher had coherent theories of how reading should be taught, and used theory to guide her practice. While neither teacher was completely consistent in her link between the two, the disparities that exist can be explained by the disjunction between what any human states as a goal, and what occurs in daily existence. Additionally, there was a reflection of the principals' stated philosophies made by the teachers. Since principals take on an instructional leadership role this is a logical outgrowth of their own theories about schooling.

Both teachers appear to be integrating the language arts as envisioned by the Framework, but the textbook (whichever one is being used) is the preeminent authority, rather than a resource for constructing meaning. Both teachers are using more oral language, more cooperative learning, fewer worksheets, more tradebooks, and more activities than are generally described when reading past studies of elementary classrooms.

Fewer worksheets and workbook assignments are being given, and more authentic skills-based assignments are being generated by teachers. Instead of answering "comprehension questions" at the end of a basal selection, the students create Venn diagrams, write summaries and comparisons, and generally apply comprehension skills in more authentic situations.

The teachers both feel free to construct curriculum for their students. Neither felt compelled to use the Houghton-Mifflin materials unless that use suited their instructional purposes. Mary constructed "tons" of units, and used numerous books to support her themes. Nancy used poetry and constructed her own worksheets for students or bought other commercially made materials. Thus, instruction is less "textbook-driven" (in the basal sense) than before the 1987 Framework.

Students demonstrated several different strategies for comprehending text. If the teachers are emphasizing more than one way to comprehend text, students will use more than one method. Teachers and students alike are accepting the connection between the reading and writing processes. Students mentioned reading what they had written to make sense of it, and teachers rarely assigned reading without some sort of response in writing.

Guided silent reading prior to oral reading does not appear to occur in these classes. Because students of varying abilities are reading the same materials, teachers are relying on oral reading (and teacher oral reading) to get through reading materials. This raises questions about how students will become independent readers.

Language arts instruction is still more product- than process-centered, but the impetus in Mary's class, at least, is toward process. Skills instruction is occurring; phonics instruction is occurring. Students are still being held accountable for such things as book reports. What has changed is the nature of the product. Instead of a report on owls, one sees a poster containing the same information in a fine arts form. Instead of a poem painstakingly copied onto lined paper, one sees "a painted picture, with silhouettes on top of it, and poetry in the corner."

Reading and writing attitudes of students were generally positive. While Nancy's students were less enthusiastic about reading and writing than were Mary's, both sets of students were above the published mean on both attitude measures.

Additionally, interviews revealed that students enjoyed school for the most part. This may be partially a result of the activity-based nature of these classrooms.

Interactions in the classroom have changed in some respects but not in others. Collaborative learning is common in both classes. It is acceptable for students to learn from each other. There is more talking and sharing of ideas. However, there is still a great deal of lecture and recitation (IRE), and some rote skills work as evidenced by the DOL and language drill, and the teacher is still the central authority. There is no evidence of homogeneous grouping on even a temporary basis, although in her interview Nancy did speak of pulling out five able readers to read a separate book later in the year.

The two teachers in this study, recommended as "exemplars" in language arts instruction by their district, are very far from a constructivist stance towards learning. Each of these teachers sees constraints against their students' sense of agency, sense a "deficit" in their students, and possess the idea that something must always be "fixed" about the student. This stance militates against a constructivist epistemology of teaching and against the tenets of whole language.

Finally, in looking at the epistemological schemes of Perry and of Belenky, et. al., teachers must have reached a stance whereby Truth and Authority (with the capitals) have ceased to be compelling, and the relative nature of truth and authority (no capitals) has been revealed before an individual can teach in the constructivist mode. There is no evidence that Mary and Nancy have spent time reflecting upon this, and as O'Loughlin (1991) states, teachers must learn to examine their beliefs about knowing, teaching, and learning in order to change their "culturally constructed ideological systems" which are frequently unconsciously held. In fact, Mary and Nancy can be characterized more suitably as "interactive informers" (Taylor, 1990). A very preliminary model of teacher epistemological stance and curriculum enactment is offered in Appendix 3.

This is my "story" of two teachers enacting the language arts curriculum in their classrooms. It has been my intent to give enough information that my reader become my "coanalyst" (Erickson, 1986). I have presented a detailed description of the two classrooms, the teachers, and some of the students. I have shared my perceptions about those persons and events through the data and through the lenses provided by other researchers on the subject. Thus, it is my hope that the reader has ample information from which to base his or her analysis and synthesis of the same information. According to Goetz & LeCompte (1984), such a study should possess comparability and translatability. Comparability is obtained through thorough description of the environment and definition of terms used throughout the paper. Translatability is strengthened by my detailing how I collected data, describing in detail my data, and defining carefully the categories I used. I do not claim generalizability for my study, but instead refer the reader to the work of Rebecca Barr (1986) in which she calls for the investigation of exemplars in natural settings as the basis for compiling theories of reading. I hope that my study has contributed in some small way to that growing body of knowledge.

References:

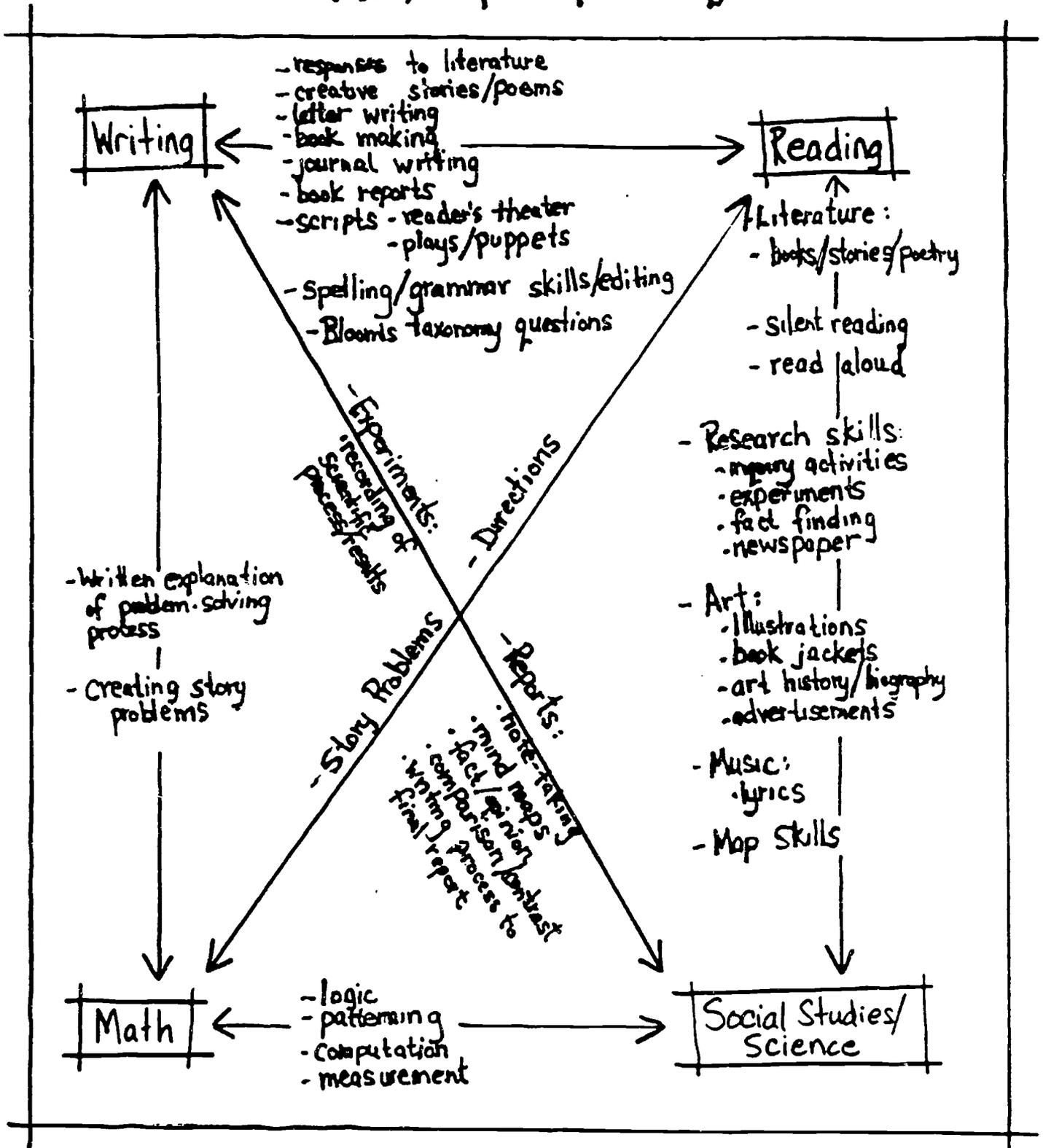
- Barr, R. (1986). Commentary: Studying classroom reading instruction. *Reading Research Quarterly*, 21, (3), 231-236.
- Belenky, M., Clinchy, B., Goldberger, N. and Tarule, J. (1986). *Women's ways of knowing*. New York: Basic Books.
- Brophy, J. and Alleman, J. (1991). Activities as instructional tools: A framework for analysis and evaluation. *Educational Researcher*, 20, (4), 9-23.
- Bruner, J. (1983). *Child's talk: Learning to use language*. New York: Norton.
- Caine, R.N. & Caine, G. (1991). *Making connections: teaching and the human brain*. Alexandria, VA: ASCD.
- Clark, C. and Peterson, P. (1986). Teachers' thought processes. In Wittrock, M.C. (Editor) *Handbook of research on teaching, third edition*. New York: MacMillan Publishing Company.
- DiPardo, A., & Freedman, S. (1987) *Historical Overview: Groups in the writing classroom*. Technical Report No. 4. Berkeley, CA: Center for the Study of Writing.
- Doyle, W. and Carter, K. (1984). Academic tasks in classrooms. *Curriculum Inquiry*, 14, 2, 129-149.
- Duckworth, E. (1987). *"The having of wonderful ideas" and other essays on teaching and learning*. New York: Teachers College Press.
- Durkin, D. (1984). Is there a match between what elementary teachers do and what basal reader manuals recommend? *The Reading Teacher*, 37, (8), 734-744.
- Durkin, D. (1981). Reading comprehension instruction in five basal reader series. *Reading Research Quarterly*, 16, (4), 515-544.
- Durkin, D. (1979). What classroom observations reveal about reading comprehension instruction. *Reading Research Quarterly*, 14, (4), 481-533.
- Dyson, A. (1987). *Unintentional helping in the primary grades: Writing in the children's world*. Technical Report No. 2. Berkeley, CA: Center for the Study of Writing.
- Elbaz, F. (1983). *Teacher thinking: A study of practical knowledge*. New York: Nichols Publishing Company.

- Erickson, F. (1986). Qualitative methods in research on teaching. In M.C. Wittrock (Ed.) *Third Handbook of Research on Teaching*. New York: MacMillan Publishing Company.
- Flower, L. (1987). *The role of task representation in reading-to-write*. Technical Report No. 6. Berkeley, CA.: Center for the Study of Writing.
- Freedman, S. (1987). *Peer response groups in two ninth-grade classrooms*. Technical Report No. 12. Berkeley, CA: Center for the Study of Writing.
- Gibbs, J. (1987). *Tribes: A process for social development and cooperative learning*. Santa Rosa, California: Center Source Publications.
- Goetz, J.P. & LeCompte, M.D. (1984). *Ethnography and qualitative design in educational research*. New York: Academic Press.
- Goodman, K. & Goodman, Y. (1979). *Learning to read is natural*. New York: Longman.
- Greene, M. (1986). Philosophy and teaching. In M. Wittrock (Ed.) *Handbook of research on teaching, third edition*. New York: MacMillan.
- Johnson, D.W. and Johnson, R.T. (1989). *Cooperation and competition: Theory and research*. Edina, Minnesota: Interaction Book Company.
- Knudson, R.E. (1992). Development and application of a writing attitude survey for grades 1 to 3. *Psychological Reports*, 70, 711-720.
- Knudson, R.E. (1991). Development and use of a writing attitude survey in grades 4 to 8. *Psychological Reports*, 68, 807-816.
- Kovalik, S. (1987). *Integrated Thematic Instruction*. Prescott, Arizona: Interaction Books.
- Langer, J. & Smith-Burke, M. (Eds.) (1982). *Reader meets author/ bridging the gap: A psycholinguistic and sociolinguistic perspective*. Newark, Delaware: International Reading Association.
- Marshall, J. (1984). The effects of writing on students' understanding of literary texts. Paper presented at the Annual Meeting of the National Council of Teachers of English, 74th, Detroit, MI, November 16-21, 1984. (ERIC Document Reproduction Service No. ED 252 842)
- Marzano, L. (1990). Connecting Literature with cooperative writing in the classroom. *The reading teacher*, 43, 6, 429-430.
- McKenna, M.C. & Kear, D.J. (1990). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher*, May, 1990, 626-639.

- O'Donnell, A.M., Dansereau, D.F., Hall, R.R., Skaggs, L.P., Lambiotte, J.G., Hythecker, V.I. and Young, M.D. (1988). Cooperative procedural learning: Effects of prompting and pre-versus distributed planning activities. *Journal of educational psychology*, 80, 2, 167-171.
- O'Donnell, A.M., Hall, R.H., Rocklin, T.R. Dansereau, D.F., Skaggs, L.P. Lambiotte, J.G. and Young, M.D. (1988). The role of individual differences in the cooperative learning of technical material. *Journal of educational psychology*, 80, 2, 172-178.
- O'Loughlin, M. (1990). Teachers' ways of knowing: A journal study of teacher learning in a dialogical and constructivist learning environment. Paper presented at the Annual Meeting of the American Educational Research Association, Boston, MA., April 16-20, 1990.
(Eric Document 327 477)
- Perry, W. (1970). *Forms of intellectual and ethical development in the college years: A scheme*. New York: Holt, Rinehart and Winston.
- Perry, W. (1981). Cognitive and ethical growth: The making of meaning. In A.W. Chickering (Ed.) *The modern American college*, (pp. 76-116). San Francisco: Jossey-Bass Publishers.
- Peterson, P.L., Wilkinson, L.C., and Hallinan, M. (1984). *The social context of instruction: Group organization and group processes*. San Diego, California: Academic Press, Inc. (Harcourt Brace Jovanovich).
- Piaget, J. (1975). *The development of thought: Equilibration of cognitive structures*. New York: Viking.
- Prescott, S. (1990). Teachers' perceptions of factors that affect successful implementation of cooperative learning. *Action in teacher education*, 11, 4, 30-34.
- Richardson, V., Anders, P., Tidwell, D. & Lloyd, C. (1991). The relationship between teachers' beliefs and practices in reading comprehension instruction. *American educational research journal*, 28, 3, 559-586.
- Rosebery, A., Flower, L., Warren, B., Bowen, B., Bruce, B., Kantz, M., & Penrose, A. (1989). *The problem solving processes of writers and readers*. Occasional Paper No. 7. Berkeley, CA: Center for the Study of Writing.
- Rosenblatt, L.M. (1988). *Writing and reading: The transactional theory*. Technical Report No. 13. Berkeley, CA.: Center for the Study of Writing.
- Rosenfield, P., Lambert, N.M., and Black, A. (1985). Desk arrangement effects on pupil classroom behavior. *Journal of educational psychology*, 77, 1, 101-108.
- Schmuck, R.A. and Schmuck, P.A. (1979). *Group processes in the classroom*. Dubuque, Iowa: William C. Brown Company Publishers.

- Sharan, S. (Ed.) (1990). *Cooperative Learning: Theory and research*. New York: Praeger.
- Slavin, R.E., (Ed.) (1989). *School and classroom organization*. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.
- Slavin, R., Sharan, S., Hertz-Lazarowitz, R., Webb, C., and Schmuck, R. (Eds.)(1985). *Learning to cooperate, cooperating to learn*. New York: Plenum Press.
- Slavin, R.E. (1983). *Cooperative Learning*. New York: Longman.
- Tannen, D. (1985). Relative focus on involvement in oral and written discourse. In C. Pappas, B. Kiefer, & L. Levstik, *An integrated perspective in the elementary school: Theory into action*. New York: Longman.
- Taylor, P. (1990). The influence of teacher beliefs on constructivist teaching practices. Paper presented at the Annual Meeting of the American Educational Research Association, Boston, MA, April 16-20, 1990. (Eric Document 320 883)
- Tierney, R., Caplan, R., Ehri, L. Healy, M., & Hurdlow, M. (1988). *Writing and reading working together*. Occasional Paper N. 5. Berkeley, CA: Center for the Study of Writing.
- Tharp, R.G. & Gallimore, R., (1989). Rousing schools to life. *American Educator*, 13, No. 2, 20-25, 46-52.
- White, S.R. (1988). *Teaching reading: an ethnography*. Unpublished Dissertation, University of Wisconsin-Madison.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Theme / Topic of Study



SEVEN MULTIPLE INTELLIGENCES

MEGASKILLS

LEARNING MODELS

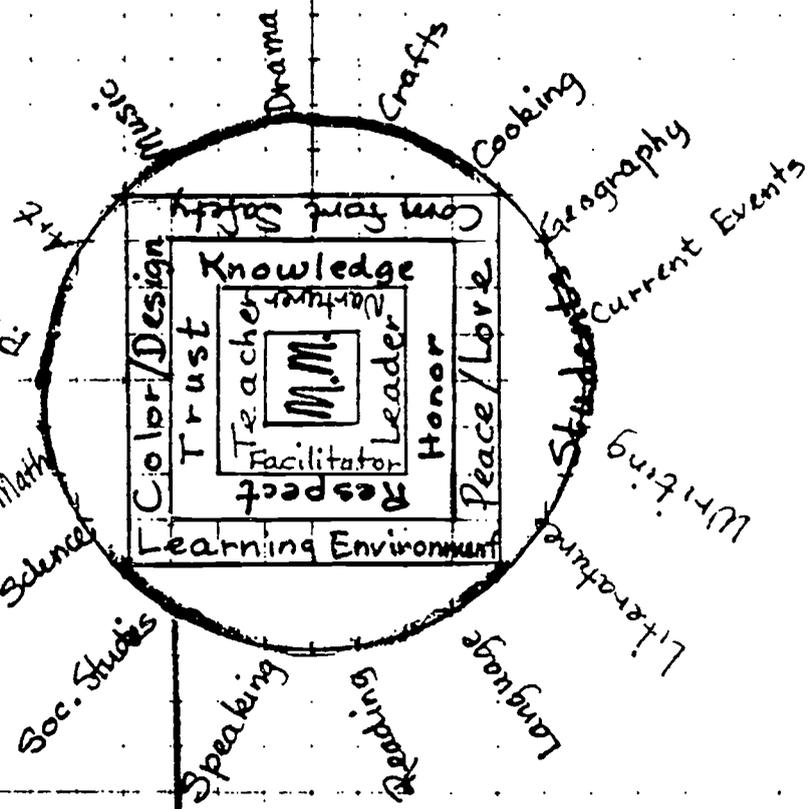
Kovalek
 Problem Solving
 HOTS
 AIMS

BEHAVIORAL MANAGEMENT

Scholar Dollars
 Conflict Management
 Assertive Discipline

INSTRUCTIONAL STRATEGIES

Teacher modeling
 Personal inquiry
 discovery
 Social interaction
 partners
 groups
 jigsaw
 coop
 con
 com
 Human Resource
 Current events
 Journals



STRIVE FOR EXCELLENCE

WORK

imaginative
 creative
 authentic
 individual



