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LITERACY ACTIVITIES IN A FIFTH-GRADE INFORMAL, PROJECT-BASED LITERATURE PROGRAM: A QUALITATIVE CASE STUDY OF INSTRUCTIONAL SUPPORTS AND CHILDREN'S LEARNING ENGAGEMENT

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

by

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*****

The Ohio State University

1997

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ABSTRACT

Despite numerous studies on project-based programs, academic tasks, and children's reading/writing strategies, little research attention has been given to these essential components of instruction as they work together in an actual context of classroom practice. This descriptive, naturalistic study in a fifth-grade informal, project-based literature program examined literacy tasks, instructional assistance, and children's learning engagement as they occurred together as natural instructional events in everyday classroom practice. Over five months, data (field notes, transcripted video- and audiotapes of whole-class instructional sessions and interviews with both students and their teacher, and samples of students' work) were collected as these members of the class negotiated, planned, enacted, presented, and evaluated four major projects included in this study. Results of the analyses of data pointed to the conclusion that (1) when literacy tasks were embedded in a larger context of task environments (projects), children voluntarily read and wrote extended texts for multiple purposes in various genres as an integral part of accomplishing the larger goals of the project; (2)
successful enactment of the project-based instruction required a great deal of professional knowledge, skills and commitment from the part of the teacher; and (3) children's literacy engagement varied in terms of their use of resources and cognitive strategies. Grounded in the data from the four project units, a model of project-based learning cycles was developed which elucidates phases of learning-teaching processes leading to the establishment of ever-expanding knowledge bases.
Dedicated to Adam Maulana Musthafa
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**FIELDS OF STUDY**

Major Field: Education

Literacy Studies

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CHAPTER 1

BACKGROUND OF THE PROBLEM

The past several years in the American Schooling System have witnessed nation-wide educational reform efforts to enhance the outcomes of educational programs in the form of student learning achievement. The goal in literacy education is currently--more than ever before--focused on higher level thinking and achievement in academic areas; the spirit is to help learners to become independent, life-long learners (America 200: An Education Strategy, 1991). Literacy educators, and experts in other fields alike, are taking the challenge.

While various efforts are being made to encourage students to get immersed into literate environment through exposure to a wealth of literacy acts and artifacts such as those reflected in the Whole Language movement (e.g., K. Goodman, 1986) and/or Literature-based reading programs (e.g., Honig, 1988), as of now, the outcomes of literacy instruction at the national level as a whole have not yielded the desired level of achievement. For example, a recent national assessment in reading conducted by the
National Assessment of Educational Progress (NAEP, 1992) reports, among others, the following:

Fifty-nine percent of the fourth graders, 69 percent of the eighth graders, and 75 percent of the twelfth-graders were estimated to have reached the Basic level or beyond, indicating at least partial mastery of the knowledge and skills needed for proficient work at each grade.

For grades 4, 8, and 12, the percentages of students estimated to have met or exceeded the Proficient achievement level were 25, 28, and 37 percent, respectively. Proficient, the central level, represents solid academic performance and competency over challenging subject matter. [all underline mine] (Mullis, Campbell, and Farstrup, 1993:7)

This report shows that students’ actual mastery level of knowledge is low, and the gap between the actual and the targeted proficiency levels is wide. The fourth-graders’ twenty-five percent of achievement, as also acknowledged by the Panelists, leaves a great deal to be desired (National Education Goals Panel, 1994). The overall picture of reading achievement records in this country becomes even worse when we consider the most recent national survey findings (NAEP, 1994) which state that "[T]he average reading proficiency of twelfth-grade students declined significantly from 1992 to 1994;" and this decline was observed across a broad range of subgroups (Williams, Reese, Campbell, Mazzeo, and Phillips, 1995, p.8). Given this low-level learning achievement, reading instruction is under a great deal of challenge.
In regard to children's writing, NAEP's 1992 Writing Portfolio Study has this to report:

At fourth grade, most of the narrative papers submitted (52 percent) were descriptions of events or lists of related events that were brief and undeveloped. Forty-six percent were stories with some descriptive detail but little development, and only 1 percent were developed stories [all underline mine].

...[Most] of the fourth-grade informative-writing (73 percent) was at a basic level--either listings of information or attempts at discussion... Only 1 percent of the fourth-grade papers were developed or elaborated discussion [all underline mine] (Gentile, Martin-Rehmann, and Kennedy, 1995).

As indicated in the excerpts, only a handful of children have achieved the targeted proficiency level; the majority of them performed at "basic level." Taking the reading and writing reports together, then, it seems understandable why literacy researchers and educators have expressed serious concerns about the present states of the arts in literacy education.

Responding to some of these concerns, recently NAEP (1995) conducted a follow-up study which focused on a subgroup of fourth-grade students who participated in previous studies (i.e., NAEP 1992 & 1994). This survey and interview study centered on the reading practices of the children both at their homes and schools. The major findings included:
...An overwhelming majority of students reported reading story books and magazines (97 and 90) percent; however significantly fewer of them reported reading information books (77 percent).

...Many fourth graders reported writing journal entries (50 percent), or stories (67 percent), or book reports (72 percent) about things they had read in school.

...From the array of classroom reading work that students brought to IRPR [study] interviews, it appeared that fourth graders were involved in many different types of activities as a part of their reading instruction—both skills-oriented and writing tasks, and both commercially and noncommercially prepared assignments. (Campbell, Kapinus, and Beatty, 1995:2-5)

The excerpt revealed to us that, although informational books are read by a fewer number of children compared to magazines and story books, as a whole the type of materials the children currently read is relatively varied. Given the variation, there is a hope that children of today will get a better access to real-life literacies valued in the cultures of the country.

Survey research such as the study regularly conducted by NAEP is useful in informing us of the general picture of what has been carried out and achieved by students and their teacher. However, we are left with no information as to how the students and their teacher negotiate and engage in the activities they do during instruction. This condition underscores the need for a study which looks at learning experiences at the classroom level as they occur during instruction.
Another point of national-level concern is the issue of transfer. For example, Applebee, Langer, and Mullis (1989) report NAEP's earlier finding about some gains in student achievement. The same authors, however, quickly qualify the finding and give a note of caution:

However, too few students develop the capacity to use the knowledge and skills they acquire in school for thoughtful and innovative purposes. And too few students learn to reason effectively about information from the subject they study. (p.5)

Proposing their views about what should be done to remedy the situation, Applebee et al. (1989) argue that "[S]tudents across the grades need to engage in activities that require them to apply, extend, and evaluate what they are learning and to relate new learning to what they already know." (p.30) This proposal calls for many layers of changes in literacy instruction: from its philosophical foundations to instructional models which guide teachers' day-to-day instructional decision making. Applebee et al., further explain:

Such changes will involve reshaping current notions of the goals of instruction, the roles of teachers, and students, the language of instruction, the nature of instructional activities and materials, the signposts teachers use to know they have been successful in their profession, and the evidence policy makers, administrators, parents, and the general public use to know that schools are doing their job and that students are learning. (Applebee, Langer, & Mullis, 1989:41)
Consistent with this call for reform, literacy educators have encouraged and initiated development and implementation of programs which draw classroom-life experiences closer to real-life activities outside of school. In literacy education, these programs take different forms and names such as "Whole-Language", "Literature-Based," and "Language Across Curriculum" (cf. Pearson, 1994).

While the shaping and translating of those new trends are still open to varying interpretations and curricular enactments (Gee, 1994), scholars in the field of education have also begun to look at the complexities and dynamics of classroom life as a locus of educational reforms (e.g., Doyle, 1986; Marshall, 1986, 1990, 1994). In-depth classroom-based studies hold the promise of revealing a great deal of what kind of experiences students have (and how they come to understanding), how teachers orchestrate their resources to assist student learning, how children and teacher negotiate their learning agendas, and so forth. While it might be impossible for a single study to take care of all factors which can facilitate or impede learning, a classroom-based study might give some light which enables us to understand students' learning from within the classroom experience, using participants' perspectives. Insiders' perspective is crucial here because human behavior,
including learning, is greatly affected by situational contexts (cf. Duffy & Jonassen, 1992).

Traditionally, classroom instruction has been studied using process-product perspectives. Results of such a study generally indicate that direct instruction, whose primary focus is on instructional time, is the most efficient model for enhancing student achievement growth in basic skills (Medley, 1977; Rosenshine & Berliner, 1978; Good, 1979). Basing his idea on this classroom-research orientation, Brophy (1979), for instance, suggests that good classroom management—management which minimizes both off-task student behaviors and the amount of time spent on non-instructional routines—should be employed to make time available that would otherwise be lost. In a similar vein, upon studying a classroom study on reading, Durkin (1979), who found less than 1 percent of teacher time spent in direct verbal instruction in comprehension, argues that teachers must allocate more time to this aspect of reading. These argument have resulted in proliferation of discussions about time increase while, unfortunately, undermining the possibility that equity in learning might be related as much to quality of assistance provided by the teacher as to engaged time (Duffy & McIntyre, 1982). Consequently, descriptions of how teachers facilitate children learning during instructional time are scarce, as are data describing qualitative aspects of tasks in which students are engaged.
In educational circles, it has been commonplace to characterize that the ultimate, pragmatic purpose of classroom-based research is to affect practice. In order to do so, it is first necessary to understand current practice at a fine-grained level of detail. This line of thinking calls for research which enables the researchers to "get inside" instruction (McKeown & Beck, 1994). This present study is an effort to address such a need by systematically describing the nature of literacy tasks, instructional assistance and learning engagement as they naturally occur in the ecological context of classroom instruction.

Classroom as a Learning Environment

The concern about the issue of transfer which has been voiced by Applebee, Langer, and Mullis (1989) earlier is a legitimate one. Students' failure to "use their knowledge and skills they acquire in school for thoughtful and innovative purposes" might be rooted, as its origin, in the way the knowledge and skills were acquired and developed in the first place. Therefore, one good place in which we can look for explanations about students' learning is their classroom-learning experiences. This is so because learning always takes place in a context and the context forms an inexorable link with the knowledge embedded within it (e.g., Brown et al., 1989; Resnick, 1987).
Research from the past several years has established that learning is an active process in which meaning is developed on the basis of experience (e.g., Bednar, Cunningham, Duffy & Perry, 1992; Marshall, 1994). As learning is embedded in students' experiential matrix, it cannot be seen independent of the content and the context of its occurrence-- teaching-learning processes in the classroom.

Classroom, as a learning environment, is never static. In fact, classroom is dynamic. In it there is a social life where teacher and her students continually interact and negotiate their learning agendas (cf., Doyle, 1986; Marshall, 1994). The social context, including the interactions of the particular teacher and group of students in a classroom, therefore, influences the opportunities students have for learning. The opportunities created for learning-- which can embody in the tasks students complete and instructional assistance provided by their teacher-- in this socially constructed learning environment can have important consequences for students: what and how they learn and for what purposes.

Rationale for the Study

This study describes literacy activities, instructional support, and student learning engagement as naturally
occurring events during the enactment of four major project units. The objective was to discover their recurring patterns to allow for the construction of a model of project-based learning. The study examined types literacy tasks in which students are engaged, and teacher's instructional assistance in support of students' learning, and learning engagement as displayed by selected focal learners.

This study was based on the constructivist views of learning and instruction (e.g., Piaget, 1959; Vygotsky, 1978). In the constructivist view, learning is an active, constructive process in which the learner is building an internal representation of knowledge and personal interpretation of experience. Learning occurs in a socio-cognitive context through the tasks and content students are engaged in; meaning is seen as rooted in, and indexed by, experience embedded in that context (cf, Marshall, 1994). In this view, then, instruction is the act of providing learners with these tasks and providing students with the tools needed to develop the skills in constructing an informed response and for evaluating responses. The goal of instruction is to improve learners' ability to use the content domain in authentic, real-life(like) tasks (Brown et al., 1989a).
Research Questions

The primary purpose of this study was to observe and describe literacy tasks, instructional support and children's learning engagement in order to understand instructional practice in the classroom. The following general questions were developed to guide the inquiry process:

1. What teaching-learning patterns are indicative of this project-based literature program?
2. In what ways do the projects get negotiated within this curriculum?
3. What is the nature of literacy tasks that the children are engaged in within and across projects in this project-based literature program?
4. What instructional supports does the teacher provide in this project-based literature program?
5. Within this project-based literature program, what is the nature of children's literacy learning processes as reflected in their ways of accomplishing learning tasks?

Definition of Terms

For the purposes of this research, some key terms have been defined in their specific meanings. That is, in this
research, "informal program" is defined as a program where "democracy is a big component of what is done" in the classroom as a community of learners. "Project-based instruction" is defined as an instructional approach which emphasizes the notion of "learning by doing", where students are expected to actively define what they want to do and learn with their teacher’s assistance. "Project" is defined as shareable learning products, which might take the form of artifacts or verbalized ideas. "Engagement" is defined as goal directed activities in the context of accomplishing learning goals as defined by project units under study.

General Approach to the Study

This study describes literacy instruction in terms of types of literacy tasks, instructional assistance and students’ engagement with their projects in an informal, project-based classroom. Given that it is "impossible to separate the phenomenon’s variables from their contexts", a case study method is the best choice (Merriam, 1988:10). Furthermore, the descriptive nature of the study warrants a qualitative approach. More specifically, the research has utilized systematic observation techniques with an ethnographic tool, with the classroom serving as a bounded case.
Significance of the Study

Results of this research can inform both practitioners and theorists of empirical evidence on the types of literacy activities, instructional supports and learning engagement by providing descriptions of actual instructional practice in a fifth-grade informal, project-based literature program. In addition, the research can also provide insights into the types of literacy tasks teachers can create when designing themes for children’s learning through projects.

Therefore, the important value of this inquiry lies not in its ability to provide the overall topography of the project-based literature program as a learning environment but in its finely-grained descriptions of literacy tasks as initiated by the teacher and her instructional assistance to support students’ literacy development, and students’ actions in going about completing the literacy tasks through engagement with their projects.
CHAPTER 2

REVIEW OF RELATED LITERATURE

What we can understand about the nature of learning and instruction, and what we can conclude from what we observe, to a considerable degree, depend on the lens we use to view what is occurring in the classroom (Marshall, 1994). Consistent with this thinking, and, more importantly, in line with a set of beliefs held by Christine, the classroom teacher, the framework adopted in this study was that of Constructivism.

This chapter will discuss (a) theoretical perspectives which framed the study and undergirded the instructional program being researched; (b) principles and characteristics of the instructional approach drawn from literature related to the program under study; (c) research on academic tasks, literacy activities, and instructional assistance; (d) integrated language skills and content-area learning; and (e) potentials and requirements of the instructional approach under study. More specifically, the chapter is divided into six interrelated sections. The first section outlines Constructivist perspectives about the nature of
learning and instruction, which framed the present study. Also contained in this section is a discussion of pedagogical principles drawn from the theoretical framework.

The second section situates project-based instruction within the general framework of literacy education. Specific principles which guide project-based instruction are also outlined. The third section presents research related to major components of instruction which made up the focus of the present research: academic tasks, instructional assistance, and literacy engagement. A specific discussion of literacy activities and their relation to content-area learning represents the fourth section. The discussion starts with reading to learn and is followed by reading-to-write and then concluded with writing-to-learn. The fifth section draws together linguistic skills and puts them into an integrated perspective. The final section discusses some potentials and requirements related to project-based instruction. A brief summary concludes the chapter.

**Constructivist Views of Learning and Instruction**

In response to critics of contemporary education who have indicted that students in schools have failed to master basic concepts and principles, cannot apply what they learn to problems they face in everyday life (e.g., Finn, 1991 cited in Ladewsky et al., 1994), Constructivism was brought to forefront as an alternative way of seeing learning and
instruction. Essentially, Constructivists believe that individuals actively construct knowledge and understanding, rather than passively receive information in response to external forces, such as reward and punishment. Learners connect new material with what they already know. Learning, in this view, consists of building on what the learner brings to the situation and restructuring initial knowledge in widening and intersecting spirals of increasingly complex understanding (e.g., Marshall, 1994). As learners come to learning contexts with different background knowledge, experience, and interest, it is expected that they will make different connections in building their knowledge over time. Within this framework, therefore, the classroom as a learning context stimulates multiple opportunities for coming to understandings. Different processes and ways of constructing knowledge are encouraged (e.g., Duffy & Jonassen, 1992a).

Within a constructivist framework, learning contexts represent a vital part of the acquisition of knowledge. Learning of both skills and concepts is seen together as occurring within meaningful and integrated contexts (e.g., Bednar et al., 1992). Learning does not occur all at once, but is constructed over time in an incremental manner as an initial understanding is revised as a result of an encounter with a better alternative viewpoint (cf. Marshall, 1994). In a Constructivist view, both teachers and students assume
multiple roles; they both can serve as knowledge generators as well as knowledge formulators through collaborative exchanges in social interactions. Students, in this view, assume responsibility for their continued learning.

As noted earlier, in general, Constructivists believe that learning is an active process. Some, however, have made a distinction between two different orientations within this theory. That is, people with more cognitive bent ("Cognitive Constructivists") would see learning process as mainly occurring within the individual's minds and perceive a social context as a given background; whereas those constructivists with more social bent would put more emphasis on social context as inseparable from learning. In other words, while cognitive constructivist views of learning suggest that the learner constructs knowledge—albeit with the guidance of more knowledgeable others—social constructivists put more emphasis on the role of social interaction through which contexts, knowledge, and meanings in everyday life are constructed and reconstructed (cf. Marshall, 1994).

According to a social constructivist framework, learning and thinking are social in nature, as they are nested in social contexts rather than occurring solely in an individual's mind (e.g., Werstch, 1985; Vygotsky, 1978). Through social interactions, new levels of conceptual understanding can be reached (e.g., Vygotsky, 1978). While
cognitive constructivists recognize the social context as a
given background factor, social constructivists see the
social context itself as being continually constructed in
dynamic and ongoing interactions among the participants. The
social contexts such as classrooms generate their own
socially constructed norms and expectations. These
classroom-embedded norms and expectations, in turn,
influence the opportunities students have for learning.

As school-based learning has generally been noted as
different from its counterpart in real life, and this
departure from real world is considered to be a major factor
underlying the failure of transfer from school to the world
outside the school (e.g., Brown, Collins, and Duguid, 1989;
Resnick, 1987), cognitivists emphasize "situating" learning
experiences in authentic activities.

In summary, instruction based on constructivist views
strives for developing learning environments which encourage
construction of understanding based on multiple
perspectives. It follows, then, that teaching-learning
processes should be carried out in a way consistent with
instructional techniques drawn from the constructivist
epistemological assumptions and learning theories. These
include (a) situating cognition in real-world contexts
(e.g., Brown et al., 1989), (b) teaching through assistance
of a more knowledgeable other (e.g., "cognitive
apprenticeship" ), and (c) construction of multiple perspectives.

**Situating Cognition**

The need for learning experiences to be situated in real-world contexts has long been recognized (e.g., Brown et al., 1989; Resnick, 1987). Teachers of literacy can do this in several ways. One is through authentic tasks, that is "those that have real world relevance and utility, that integrate those tasks across curriculum, that provide appropriate levels of complexity, and that allow students to select appropriate levels of difficulty or involvement." (Jonassen, 1992, p.140). Authentic tasks may vary in their form and complexity depending on the level of expertise of the learners (e.g., Kucer, 1991). For instance, instruction may be focused on the functional context of the targeted knowledge; authentic tasks are then devised and instruction is provided in the context of those tasks. One important idea here is that instruction should maintain the complexity of the environment and assist students in understanding the concept embedded in the multiple complex environments in which it is found (Spiro et al., 1988). In this way, the learning task is not isolated, but rather is a part of a larger, relevant context (Bransford et al., 1990).
Learning with the Help from Others

A fundamental assumption of social constructivism is that all knowledge is social in nature (e.g., Vygotsky, 1978). Learning, in this view, occurs in a social context where students are enabled to develop their evolving knowledge base through active engagement in interactions with others. Classroom instruction, with a teacher serving as a more knowledgeable member, should provide students with instructional assistance in such a way that the students have the opportunity to see how an expert other handles things which are currently beyond their independent functioning. The distance between the student's actual, present ability as determined by independent problem solving and the higher level of functioning she could achieve under adult guidance or in collaboration with more capable peers is called zone of proximal development or ZPD (Wertsch, 1985). Assistance in ZPD is called scaffolding, which should serve as a major component of instructional activity (cf. Bruner, 1984).

In the classroom context, scaffolding characterizes the social interaction between teacher and her students, where the teacher gives support structures to enhance learning. Scaffolding can take many different forms, depending on the perceived needs in the learning interaction. For instance, based on their classroom study of two social constructivist classrooms, Roehler and Cantlon (1997) identify five types
of scaffolding: offering explanation, inviting student participation, verifying and clarifying student understanding, modeling of the desired behaviors, and inviting students to contribute clues. As reflected in the progressive nature of the order of these types of instructional assistance, the primary objective of scaffolding is to transfer both substantive and procedural knowledge by gradual release of responsibility for learning from the teacher to her students. The transfer of responsibility plays a crucial role here if we want our students to develop into self-directed, life-long learners (e.g., Fisher & Hiebert, 1990).

**Encouraging the Construction of Multiple Perspectives**

As outlined earlier, constructivist view emphasizes that students should learn to construct multiple perspectives on an issue. Encouraging students to construct multiple perspectives means providing them with freedom to choose their own topics or issues of interest to them and providing them with a means for discussing their ideas with peers. A central purpose here is to provide a context where students are compelled to consciously consider alternative viewpoints and evaluate the evidence supporting them. The goal is to encourage students to see alternative views and learn how to develop and evaluate the evidence to support each contention. In this way, students are exposed to
multiple perspectives which might challenge their own internal representation of knowledge about the issue. This kind of intellectual engagement can encourage conceptual growth (cf. Bednar et al., 1992).

**Integrated Language Arts and Project-Based Instruction**

In her foreword to *Integrated Language Arts* (edited by Morrow, Smith, & Wilkinson, 1994), Strickland suggests that the terms *whole language*, *emergent literacy*, *literature-based curriculum*, and *integrated language arts* all share the following emphases: they emphasize process rather than product and view language as a complex whole rather than as a series of fragmented parts; writing is treated in relation to reading; using trade books rather than relying totally on textbooks; and giving children opportunities to choose their own topics and materials for their reading and writing; and integrating language arts and content areas. In a similar way, Pearson (1994) also likens integrated language arts with theme- or project-based units.

Taking a step further, in their introduction to this edited volume, Morrow, Wilkinson, and Smith (1994) distinguish *whole language* from *integrated language arts* by saying that the former is a philosophy from which teachers draw instructional strategies, whereas the latter represents a method which carries much of the whole language philosophy. According to these authors, concepts and
strategies which are related with integrated language arts perspectives include:

- Literacy learning is child-centered in that it is designed to be meaningful and functional for children.
- Literacy activities are purposefully integrated into the learning of content area subject.
- An emphasis is placed on learning rather than teaching.
- Learning is self-regulated and individualized with self-selection and choice of literacy activities.
- Children learn through practice by engaging in long periods of independent reading, writing, and sharing what is learned.
- Projects are process-oriented and may take a long time to complete.
- Foremost in objectives for reading instruction is the development of a motivation and desire to read.

(Morrow, Wilkinson, & Smith, 1994, p.2-3)

While, in general, project-based instruction shares a great deal of principles included in the umbrella terms discussed earlier, proponents of project-based instruction (e.g., Blumenfeld et al., 1991; Krajcik et al., 1994; Ladewski et al., 1994) have characterized it more specifically. For instance, review of currently published work resulted in various characterizations. The following is a representative example:

Project-based instruction is a non-prescriptive, non-linear approach grounded in constructivist theory. ...[It] helps students develop meaningful understandings of what they learn and take ownership of their own learning. Projects (a) require an authentic, real world question or problem that organizes concepts and principles and drives activities; (b) result in a series of artifacts, or products, that address the question/problem and represent students’
emerging understandings; (c) allow students to engage in investigations—asking questions, making predictions, gathering and interpreting data, and making real-world recommendations; involve students, teachers, and members of the larger society in discourse about the problem and in collaboration as a community of inquiry; and promote the use of cognitive tools, including computing and telecommunicating technologies (Ladewsky, Krajcik, & Harvey, 1994, p.499-500)

On the basis of this characterization, some key words or phrases can be highlighted. That is, project-based instruction is based on constructivist theories; seeking to provide students with a context for meaningful learning; authentic problems or issues represent a primary basis for learning; generation of artifacts; use of collaboration as a mode of learning, and utilizing cognitive and technological tools. How learning activities proceed is left to students and their teacher as instruction should be responsive to the needs of the group.

Project-Based, Integrated Language Arts Instruction

Project-based instruction has recently enjoyed a revival of interest (Blumenfeld et al., 1991), partly because of the urgent need for alternative forms of instructional programs to address the problems of students' low level of mastery of content knowledge and learning motivation, and inability to apply what they learn in school to everyday problems (Finn, 1991 cited in Ladewski et al., 1994). As well, the emergence of this instructional approach
was triggered by earlier research findings which indicated that there was a sharp contrast between what research and theory had established about active learning in science and the science teaching practices seen in the vast majority of elementary, middle, and senior high schools in this country (Blumenfeld et al., 1991). Given its background, it seems fair to say that project-based instruction is still in its infancy. As such, as also suggested by Morrow et al. (1994), this approach is still in its formative stage and its enactment can vary from one classroom to another (Ladewski et al., 1994).

For the purpose of establishing literature review for this research, a computer search was carried out to collect related readings on project-based instruction. This computer search found only a handful of research studies conducted specifically on this subject. From the currently published work, it can be concluded that the majority of work was focused on science-related learning and teaching (e.g., Blumenfeld et al., 1991; Krajcit et al., 1994; Ladewski et al., 1994; Marx et al., 1997). Earlier research foci included enactment of project-based science curriculum (e.g., Marx et al., 1997), how teachers learn project-based instruction (e.g., Blumenfeld, 1994), a model for helping science teachers learn project-based instruction (e.g., Krajcik et al., 1994), science teachers' emerging understanding of project-based instruction (e.g., Ladewski
et al., 1994), and science task factors and their relationship with other instructional variables (e.g., Blumenfeld & Meece, 1988). As reflected in these limited published studies, no research has been carried out which examines literacy activities, instructional support and learning engagement as they embed in this alternative, project-based instructional approach format.

The discussion will now shift to research on literacy-related learning and instruction which was derived from various programs under generic name of Integrated Language Arts.

**Academic Tasks**

Academic tasks have been considered as a strategic place from which we can glean what students learn from what they do in schools. In other words, as many researchers in the field have argued (e.g., Blumenfeld, 1987; Doyle, 1979, 1983; Fisher & Hiebert, 1990; Hiebert, 1994; Mergendoller et al., 1988; Oliver, 1995), types of thinking students engage in and the quality of their learning are to a large extent determined by the nature of tasks they complete. From the purposes of research, then, as Doyle (1979) has argued, academic tasks can be used as a vehicle for examining the links between teachers' instructional actions and students learning engagement and achievement. The strategic nature of the academic tasks in classroom-based research has drawn a
great deal of research interest and resulted in a relatively big number of published work. In general, the research focus has been put on two different places: tasks as presented in commercially produced text (book)s; and tasks as they embed in everyday classroom teaching-learning interactions.

The existing, published research on academic tasks as embedded in natural classroom contexts— as opposed to intervention studies— can be grouped into three categories: (a) studies focusing on tasks and their cognitive demands; (b) studies comparing types of tasks in different programs; and (c) studies with a focus on examination of tasks and their influence on student motivation.

**Cognitive demands of academic tasks.** Mergendoller, Marchman, Mitman, and Packer (1988) examined 31 laboratory activities, 45 worksheets, and 31 exams in eleven seventh-grade life science classes during two instructional units in San Francisco Bay Area (four teachers) and Salt Lake City, Utah (seven teachers). Focusing on the level of cognitive demand of tasks and accountability system posed to students, these researchers, who employed both quantitative and qualitative methods in collecting and analyzing the data, found, among other things, that (a) across the tasks assigned to students by all eleven teachers, only 16% of the items required students' responses beyond verbatim reproduction of information given; (b) across the entire
samples, 85% of the worksheet items and 96% of the exam items required students to only match sentences, recognize answers through "true/false" format, and generate short-answer label items. In other words, the students in this study were required to engage in only low level thinking processes.

In summarizing their discussion of findings, these researcher indicated that their data provided another confirmation of the disconcerting picture of students' tasks used in previous studies they had reviewed. This comment suggests that studies on tasks prior to Mergendoller et al.'s study share the same conclusion: that students in our schools are being asked to think at low level of cognitive engagement.

**Characteristics of tasks in classrooms with different approaches.** A number of comparative studies of tasks were recently conducted by some researchers. For example, Fisher and Hiebert (1990) examined everyday classroom processes in eight second- and sixth- grade classrooms with two different instructional approaches: Literature-Based (LB) and Skills-Oriented (SO) classrooms. Focusing on the distribution of task characteristics, these researchers found vast differences in the two different approaches. More specifically, the findings include (a) LB group allocated more time on writing tasks than SO groups; (b) students in LB approach spent more time doing tasks with relatively
higher cognitive complexity when compared to their counterparts in the SO approach; (c) on the average, students in LB approach contributed more than did students in SO classes in determining the kinds of learning products they generated as an evidence for their learning.

This research indicated to us that teachers who adopt the new instructional approach (i.e., literature-base instruction) had made efforts to follow research-based suggestions which encourage frequent use of writing as a tool for learning, and they provided children with some freedom to choose in what they learned or freedom as to how to represent their knowledge as evidence of their learning. While this research has informed us of some classroom changes in using writing and giving choices to children, we still do not know as to what kinds of writing tasks-- and their cognitive requirements-- the students are to complete, what kinds of assistance they get from their teacher, and how they engage in the tasks.

**How tasks influence student motivation and learning.** Some other researchers have examined cumulative effects of task on student motivation and learning. For example, Blumenfeld, Mergendoller, and Swarthout (1987) reviewed a number of empirical studies and theoretical constructs related to cumulative task experiences and their impacts on students’ motivation and learning engagement. They conclude
that (a) the form of tasks determines what children learn; (b) teachers' instructional strategy influences how children approach the tasks.

On the basis of research by L.M. Anderson (1981), Blumenfeld et al. (1987) argue that the form of task (i.e., its required procedures, end products, and social organization) determines what is eventually learned by students because the task dictates what should be done and how it should be done and with whom. Students' understanding which results from their engagement with the tasks will in turn influence their understanding of the purpose of the tasks, which, in its turn, will influence how they approach the tasks and their cognition and behaviors while working on the tasks.

In the field of literacy, the powerful influences of task requirements can be seen in many studies. An example is the work of Stemglass (1983). Stemglass examined her study which examined papers written by students from three universities in response to the same tasks (i.e., writing an expository text; writing an argumentative text; and writing a speculative essay). Analyses of students' propositional content and rhetorical moves led to the conclusion that students operate at different levels (of cognitive processing) in response to different experiences in their environment at the same time. This conclusion is consistent with Mergendoller et al.'s proposition that students expend,
and adjust, their resources as required by task demand. Another study in support of this conclusion is that of Durst’s (1985). Using protocol analysis, Durst examined one student’s way of responding to two different writing tasks: writing summary and writing an analytic essay. Results indicated that this student engaged in richer and more complex thinking operations while writing analytically than while summarizing.

In addition, a manner in which teachers define an academic task in terms of learning goals to be attained, the product by which it is to be demonstrated, and the assessment criteria to be applied influences students’ perceptions of what they have to learn, how they have to learn it, and their performance as they engage in the task. This implies that teachers need to be explicit in explaining task objectives and how the tasks should be approached to ensure the attainment of the targeted objectives, and they should also align their assessment method with the task requirements.

**Instructional Assistance**

The currently existing, accessible published studies on instructional assistance mostly focused on either a broad-based effort related to school reform in the form of "support systems", or on "scaffolded instruction" focusing exclusively on teachers’ ways of verbally guiding students
into the desired, targeted development of certain knowledge, skills, and dispositions (cf. Hogan & Pressley, 1997) without making any connections with the tasks the students are to accomplish and the way they accomplish the tasks. The dearth of data on teachers' instructional assistance as it is embedded in literacy tasks and children learning engagement prevails, as reported over a decade ago by Duffy and McIntyre (1982). As far as the present research is concerned, then, this condition underscores the unique place of the study within the field.

**Literacy Engagement**

Guthrie and Wigfield (1997) defined literacy engagement as "the joint functioning of motivation with knowledge, strategies, and social interactions in literacy" (p.5). In line with this definition, Schunk and Zimmerman (1997) contend that students' self-efficacy beliefs influence behaviors such as choice of tasks, efforts, persistence and learning achievement. Furthermore, they suggest that thoughts, beliefs, and environmental factors affect each other.

Consistent with those theoretical propositions, Marshall's (1987; 1990; 1994) study has indicated that teachers' way of framing lessons, focusing or redirecting student attention, treating students' errors, handling responsibility for learning and evaluation, and teachers'
expectations and standards and management can lead to a certain (goal-directed) orientation which will determine how learning means to students. More specifically, Marshall identified three different types of orientation which emerged as consequences of how classroom teaching-learning processes were negotiated and carried out. These orientations are: (a) Learning orientation, (b) Work orientation, and (C) Without learning or work orientation. Each "style" has its own unique influence on students. For instance, as illustrated in Marshall (1987), the spirit dominating the classroom with "learning" orientation is that students' idea or thinking hard is valuable; whereas in the class with "work" orientation, the most important thing is "to get things done"; in contrast, students in the "without learning/work"-oriented class tend to try to get away with as little work/learning as possible.

While Marshall focused on teachers' ways of managing instruction and their effects on students' "working ethos" in the classroom, other researchers (e.g., Ames & Ames, 1984; Dweck & Elliot, 1983; Nichols, 1984) took other angles: types of children's motivational orientations and their effects on their learning engagement. These scholars have proposed their own terms to represent their theoretical ideas which can be considered parallel in meanings. For instance, in describing the idea that students' engagement in achievement activities is motivated by complex goals, and
to explain differences in students' achievement behaviors, these researchers proposed sets of contrasting goal orientations: mastery versus ability focused (Ames & Ames, 1984); learning versus performance (Dweck & Elliot, 1983); and task-involved versus ego-involved (Nicholls et al., 1985). Each goal differs primarily in terms of whether learning is seen and valued as an end in itself or as a means to a goal external to the task, such as establishing social status, gaining approval, or avoiding negative evaluations from others.

More recently, extending the work of these researchers, Nolen (1988) examined the relationship between student goals or motivational orientations and their valuing and use of different kinds of study strategies (i.e., "deep processing" and "surface level" strategies). "Deep processing" strategies include discriminating important from unimportant information, trying to figure out how new information fits with what one already knows, and monitoring comprehension. "Surface-level" strategies, in contrast, include simply reading a whole passage over and over, memorizing all new words, and rehearsing information. Results indicate that "deep-processing" (but not "surface-level") strategy use is associated with "task orientation", which is a commitment to learning for its own sake (but not "ego orientation", which aims to perform better than others or to establish superiority).
Literacy Activities for Content Learning

This section was prepared with an assumption that activities are not self-justifying ends in themselves; they are instead means for helping students accomplish learning goals. Separate research in literacy education has focused on strategic points, including the facilitating role of reading activities to learning in content areas; supporting effects of writing activities on content knowledge acquisition; and cumulative effects of reading-writing activities on promoting content mastery.

Reading to Learn

As suggested earlier, Constructivists view reading as a dynamic, interactive, and constructive process. From this perspective reading act can be described as a purposeful, meaning-oriented activity that involves a complex interaction between the reader, the text, and the context (e.g., Langer, Campbell, Newman, Mullis, Persky, and Donahue, 1995). Perceived this way, reading can serve multiple purposes: to gain information, to perform tasks, to experience the worlds described in the texts, etc.

Following Chall (1983 as cited in Samuels et al., 1992), the term reading to learn is here taken to mean "learning from text." Learning from text can be perceived as the production of new knowledge as a result of interactions between information gleaned from the text and the reader's
background knowledge of the topic under discussion, general knowledge about social relationships and causal structures, and knowledge about the organization of the text (Pearson et al., 1992). Research has established that learning will take place more readily when the task at hand is meaningful to learners (e.g., F. Smith, 1988). Meaningful learning from text, according to Mayer (1992) has three basic cognitive processes: (a) selecting information, which involves paying attention to the propositional content of the text, and particularly focusing attention on information most relevant to the goal or task demands of the learning situation; (b) organizing information into a coherent mental structure (or building internal, logical relations between ideas in the text); and (c) integrating information by connecting the coherently organized information to preexisting cognitive structures.

These complex cognitive demands of learning from text can overwhelm young students. The problems that young learners have can be noticeably seen when we compare effective with ineffective learners. For instance, based on research conducted with his colleague (Weinstein & Mayer, 1985), Mayer (1992) has argued that the effective differ from the ineffective learners in their learning from text partly because of the way these learners employ learning strategies. Thus, as Mayer suggests, use of appropriate learning strategies play a critical role in meaningful
learning. And, at this point, teachers can help students with strategy instruction to ensure that the students can effectively learn from the text they read.

In current literature of learning from text, it has become commonplace to characterize that there are two places where teachers can assist students' learning from text: to make the text more comprehensible to readers (e.g., by making the text more "reader friendly") or to make the readers skillful in negotiating the text (cf. McKeown & Beck, 1994; Voss & Silfies, 1996). Mayer (1992) has termed the former "text-based" and the latter "reader-based" assistance.

More specifically, Mayer (1992) defines "text-based" assistance as those guides which are embedded in a text and are intended by the writer of the text to encourage readers to engage in various processes. These guides include advance organizers, headings, and "signal words or phrases" etc. "Learner-based" assistance is based on direct instruction of learning strategies-- that is, teaching students how to learn. Mayer further argues that even though (text)book writers generally provide clues to readers to make the text more accessible, young readers may fail to recognize and take advantage of those clues. The ability to utilize textual clues in constructing understanding from reading is important because it enables the readers to concentrate their attention on other processes demanded by reading-to-
learn activity. This is especially true in academic learning, because, as Mayer (1992) argues, academic learning involves more than the acquisition of information from texts or teachers; at the crux of academic learning is the ability to control one's own reading processes to meet some learning goals. One important role of teachers is, then, to ensure that students can negotiate textual materials effectively by teaching the necessary strategies so that the students can later develop into independent, self-directed learners.

There are several activities which teachers can do to help students learn from texts. Using an advance organizer is an example of functional reading strategies because, according to research (e.g., Loman & Mayer, 1983; Mayer, 1992), advance organizer can help students select relevant information from the text, connect that information into a cause-and-effect chain, and relate that chain to existing background knowledge. Other useful strategies to help children learn from text include outlining and elaborate note-taking. According research (e.g., Peper & Mayer, 1986; Shrager & Mayer, 1989), student outlining has a facilitative value in selecting and organizing information from text, whereas elaborate note-taking can facilitate all three processes required for learning from text: selecting, organizing, and integrating information contained in the reading.
Reading-to-Write

Flower (e.g., 1990) coined this term to refer to reading activity for a specific purpose of constructing a new text. Flower (1990) argues that reading-to-learn is worthy of separate treatment because it makes a special demand for critical literacy. That is, in doing reading in order to create a new text, the reader-writer is challenged to not only understand the source text on its own terms but also transform the idea into a new text which can serve its own purpose as intended by the writer. Flower (e.g., 1990) further suggests, as also shown in NAEP's (1995) report, that this activity is an inextricably bound up with schooling as it has already become a part of school work such as book report writing and library research writing. Some other researchers (e.g., Many et al., 1996; McGinley, 1992; Spivey & King 1989) have also conducted empirical study on this reading-to-write notion targeting at different research foci and involving students from different levels of schooling.

Recently, Many, Fyfe, Lewis, and Mitchell (1996) examined reading-writing-research engagement of 27 eleven- and twelve-year-old students in a school of open-concept design in Aberdeen, Scotland. Using multiple-case research methodology, these researchers found that students' reading-to-write engagements were strongly shaped by their task impressions--that is, the students' understanding of what
they were supposed to do in completing the task. Three
different task impressions were identified in the study, and
each task impression led students to use a certain unique
set of working strategies. More specifically, some students
perceived research (or reading-to-write) as accumulating
information; some others perceived the task as transferring
information; and still others understood the task as
transforming information. Research-as-accumulating-
information task impression tended to lead students to focus
on finding "interesting information" and recording it as a
final product without considering its relevance to the
topic. As Many et al. further explain, in working with this
research-as-accumulating-information task impression,
"Advance planning and subsequent searching for relevant
texts or information had very little influence on their
activities" (Many et al., 1996, p.20). One level more
sophisticated than the first task orientation, Research-as-
transferring-information tended to lead students to use this
strategy: locate relevant information and rewrite the
selected information into their own word. The third task
impression, research-as-transforming-information, was
characterized by more explicit planning, reviewing the
coverage of information, and consideration of audience.

In discussing findings of the study, Many et al. (1996)
cautioned "not to take anything in the students' project for
granted," because what the students could externalize might
reflect only a fraction of the knowledge they actually had.

One important implication of Many et al.'s study-- and those of others on similar topics-- is that, given the powerful effect that task impressions have on students' subsequent strategy use and literacy engagement, it is important that teachers make task requirements explicit so that students know what is expected of them to do and how to do it. In this way, children can effectively proceed with the task accomplishment in a way germane to the targeted instructional goals.

**Writing to Learn**

An outgrowth of Britton et al.'s (1975) research findings about children's writing school contexts in England, and seminal work of Emig (1971) in the United States of America, the idea of employing writing to learn content-area subjects across curriculum represents an active curriculum reform movement (Fulwiler & Young, 1982). An important assumption behind this movement is the idea that writing can be used as a tool for augmenting content-area learning because the act of writing-- which results in concrete, visible marks on paper-- will force learners to see and examine their thoughts and, therefore, enable them to update their understandings about the issue at hand (e.g., Emig, 1971). In support of this idea, Brostoff (1979) has argued that a carefully designed writing task can help
students not only show what they have learned, but also foster effective writing and learning through writing. Using social studies as a case in point, Brostoff further suggested that teachers can design good writing tasks by applying some principles. These principles include (a) specificity of targeted content knowledge and skills to be learned through writing; (b) explicit writing task requirements to achieve the targeted goals; and (c) clear presentation of tasks to ensure student understanding of what to do with the tasks and ways of accomplishing them.

Brostoff (1979) was not alone in stating that writing task design and the way it is managed by the teacher will, to a large extent, influence student learning from writing-to-learn activities. Bayer (1979), Giroux (1979), Mayher et al. (1983), Van-Nostrand (1979), and Ventre (1979) are among many who have written about this issue. Ample research support has been put forth which indicates that different writing activities lead to different cognitive operations and, in consequence, result in different leaning outcomes. Langer & Applebee’s (1987) research findings could illustrate the point. In *How writing shapes thinking*, Langer and Applebee (1987) reported, among other things, that summary writing tended to direct students’ attention to the entire source text in comprehensive but superficial manners; that "study-guide" prompt tended to engage students in thinking only about the part of the text where the answers
to the pre-determined questions were located; and analytic task assignment encouraged students to engage in deep thinking about fewer select ideas presented in the source text. These findings generally corroborated other research findings by Newell (1984) in two content area texts and findings of research by J. Marshall (1987) in literary texts.

The functional value of writing-to-learn for augmenting content mastery is, then, dependent upon specific task design, instructional management and students' ways of approaching it.

**Integrated Language Skills to Enhance Learning**

Consistent with the idea of learning as a situated social activity as promulgated by Constructivists, integrated nature of linguistic skills should be treated in an authentic way (cf. Kucer, 1991). That is, just like the way we treat linguistic skills in our daily life, the language arts (i.e., listening, speaking, reading and writing) should be treated in their universal function as cognitive tools to enable human learning and growth. Unfortunately, in Western cultures, biases towards "literate language" have for too long dominated the discourse in the academe (cf. Olson, 1988). The cultural bias towards literate language has resulted in imbalance treatment of linguistic skills, favoring reading and writing over
listening and speaking. This imbalance is evidenced in research practice: reading- and writing-related issues are far more well researched than are the other two linguistic skills.

Recently, the reform movement in literacy has attempted to put the linguistic skills in perspective, as, for instance, reflected in the term "Whole Language." The now growing realization of integrated nature of linguistic skills has given a space for better exploration of the nature of the previously-neglected skills: listening and listening. Together with the adoption of Constructivist theories of learning and instruction in literacy education, proliferation of research in holistic classroom social interactions has provided insights into educational value of speaking (e.g. discussion) and listening (e.g., discussion, readalouds,) in the classroom.

Discussion and listening to readalouds have now been recognized as legitimate and potentially useful learning tools as are reading and writing. For example, O'Flahavan (1989, cited in Gambrell & Almasi, 1994) compared the effects of participation in conversational discussion group with the more traditional initiation-response-evaluation (IRE) discussion structure (e.g., Cazden, 1986) on second-graders' cognitive, social, and affective behavior. Children in the conversational discussion groups were encouraged by their teachers to take responsibility for initiating
discussion topics and were assisted in managing turn-taking and topic handling. In the group characterized by IRE, children were prompted by teachers' question and their answers were then commented on (and evaluated). Findings include a report that children in the discussion groups were more motivated. The children also reported more positive perceptions of the role and value of discussions, more sense of responsibility and ability in handling and partaking in the discussions.

Other studies (e.g., Gambrell et al., 1985; Kapinus, et al., 1991) have also supported the notion that comprehension of text increases when children are given the opportunity to talk about what they have read. While, in general, discussions as a learning mode have potentials, the actual learning effect which emanates from this mode of learning will, to a certain degree, depend on how the discussion is conducted. For example, when a discussion is carried out in a student-centered way and multiple perspectives are encouraged, positive learning effects will likely result. However, when a discussion is framed in such away that one single correct answer gets emphasized, students will likely perceive the discussion as the teacher's didactic agenda (cf. Almasi, 1992).

As indicated by research on the use of discussions as a learning tool discussed above, as instructional technique, discussions-- in which thinking-listening-speaking
activities are nested in an integrated way—have the promise of enhancing learning. Like reading-to-learn, reading-to-write and writing-to-learn, as an instructional technique, however, the actual impacts of discussions on student learning would, to a large extent, depend on how teachers frame their instruction and students engage in the activity.

One important principle to adhere here is that teachers should create a learning environment which ensures that students will find some personal relevance in what they do so that they become more readily engaged in the activity. Integration of language arts using an authentic task can serve a function in encouraging literacy growth as a whole, because, as Pearson (1994) has argued, children’s engagement in such a task is motivated by genuine, personally important communication purposes (learning, informing, enjoyment, insight).

**Project-Based Instruction: Potentials and Requirements**

As discussed in earlier sections, classroom instruction involves many factors which interact with one another in a complex way. Students and their teacher collaboratively shape the learning environment through continual interactions. The learning opportunity, or the lack of it, represents a function of these mutually shaping, interacting factors. Project-based instruction could, therefore, only
serve as a means to an end. That is, project-based instruction is merely an instructional approach, whose impacts on children's learning depend on a host of factors.

Based on the currently available, published research and theoretical work on the enactment of project-based instruction, some potential values of the approach could be brought to fore and their associated challenges identified. For instance, Harel & Papert (1990) used a Logo program to encourage students to explore mathematical concepts (i.e., fractions) where students devised various graphical representations. These researcher noted that with the help of this technology, with which students made multiple graphical representations of fractions they were learning about, a significant increase in students' learning was gained.

This research suggests that technological tools such as a Logo computer software can help increase students' engagement with what they work on, and this highly engaging activity may encourage more intense concentration that, in turn, leads to a better understanding of the issue at hand. However, in actuality, it might be difficult—if not impossible—for classroom teachers in general to provide access to each individual student to one computer unit for an extended period of time, which is usually required to allow for meaningful explorations of a certain concept. This particular success with Logo programs, then, poses a
challenge-- at least in logistics-- to classroom teachers. Furthermore, there is another possible challenge for students to take before they can gain full advantages from using this technological tool. That is, not until they develop a relatively sophisticated operational skill in this technology can the young learners devote their mental efforts to the intellectual task of creating technologically-assisted artifacts. Otherwise, the students might spend the major part of learning time on the technical details of artifact production.

Another potential of project-based instruction is that it can afford exciting opportunities for both teachers and students to explore problems in-depth and draw on concepts across subjects (Blumenfeld et al., 1991). This promise, however, comes with its own price. That is, the productive engagement with these inquiry-based, interdisciplinary problem-solving activities assumes, on the part of the teacher, solid content-knowledge included in the projects, and she can explain to the students the substantive and procedural aspects of the project in a way comprehensible to children. Assumed as well here is that the teacher can teach learning strategies to ensure that, while engaged in their projects, children can achieve the cognitive purposes as intended by instruction. Some research (cf. Doyle, 1979; 1983; 1986) has suggested that highly complex task such as an inquiry-based project is generally associated with lower
completion rate, which can slow down the pace of instruction and heighten the potential of disorder as children's need for teachers' help increases. Doyle (e.g., 1983) has noted that teachers often feel pressured to simplify materials or suspend accountability for learning under these circumstances.

As suggested in the preceding paragraphs, then, children's learning will result from what cognitive activities they engage in and what instructional support they receive from the teacher as both collaboratively shape the learning context through continual interactions during the enactment of learning-teaching process.

Summary

This chapter has presented a review of theory and research that are relevant to project-based instruction and its major components through which we may understand how children learn from literacy activities they engage in and instructional supports provided by their teacher. The review began by outlining the constructivist views on learning and instruction, upon which the project-based instruction is based.

The review then situated project-based instruction within a broader constellation of literacy education programs from which it is a part. Instructional principles which guide the project-based instruction were also
discussed. This discussion was followed by a review of research which focused on major components of instruction: academic tasks, instructional assistance, and literacy engagement. In doing the review of these focused topics, needs were noted for research which examines those three component together as they embed in a naturalistic context of instruction.

When the review shifted its focus to an even narrower issue on literacy activities within content-area learning, it was shown that little information currently exists about how classroom teachers assist students in maximizing the facilitating effects on literacy activities on their content-area learning.

Taken together, then, the review of existing literature points to the need for a study which examines literacy activities, instructional assistance, and students' learning engagement together as they occur in a natural context of classroom learning-teaching processes.
CHAPTER 3

RESEARCH METHODOLOGY

This chapter consists of five major sections. The first section presents a general overview of the study and its contextual surroundings. The second section describes how the study was organized, structured and conducted. The third section briefly elucidates the general, physical setting and philosophical orientation of the program in which the study was conducted, and the teacher and students who participated in the study. The fourth section elaborates on the researcher's roles, phases of data collection, and types of data collected. And the fifth section presents the analysis of data, where data management and analysis procedures are discussed with reference to questions guiding the research.

Overview of the Methodology

This qualitative, descriptive, naturalistic study investigated literacy activities, instructional assistance, and children’s learning engagement in the context of an informal, project-based literature program. The inquiry took place over five months (five whole days a week) in a fifth-
grade classroom in a school that had a long history of using children's literature and trade books as a major source for student learning. The school population was middle-class to upper-middle class--children in this school mostly come from professional families, with a homogenous Caucasian-American ethnic background. The teacher who participated in this study used theme-based projects as a pivot around which students engaged in literacy tasks in an integrated way. The day-to-day curriculum in this class was devised by the teacher and discussed together with students every morning. In addition to engaging children in doing project-related tasks, which varied from one day to another, every day, during the conduct of this study, the teacher also did storybook readalouds of approximately forty five minutes and provided sustained, silent reading (SSR) for approximately thirty minutes. For this SSR she also provided freedom for students to select their own (story)books to read and respond to--various types of daily and/or weekly journals (reading, writing, science, and math) were written by the children and responded to by the teacher.

All whole-class planning, discussion, students' oral presentation and teacher's direct instruction sessions were videotaped by the researcher, who assumed mainly the role of "participant observer" (e.g., Spradley, 1980). This videotaping resulted in over sixty-six sets of ninety-minute video recording. Other data sources included daily field
notes, audiotaped interviews with the teacher and selected children. Field notes were also made of focal learners' observable behaviors and audible verbal comments as they worked on their projects; their literacy work samples were xeroxed and collected for further analysis.

The questions for this inquiry were (1) What teaching-learning patterns are indicative of this project-based literature program?; (2) In what ways do projects get negotiated within this curriculum?; (3) What is the nature of literacy tasks that children are engaged in this project-based literature program?; (4) What instructional supports does the teacher provide in this project-based program?; and (5) Within this project-based literature program, what is the nature of children's literacy learning as reflected in their engagement with their projects?

Design of the Research

The general objective of this inquiry was to describe types of literacy tasks, instructional assistance, and children's learning engagement as they occurred in the natural setting of instruction. The descriptive nature of the study called for an approach which allowed the researcher to obtain data that captured how the tasks were constructed and approached by participants and what resources were available to support the participants' accomplishment of the tasks. Considering the complex nature
of the research questions and dynamics of instructional conversations in the classroom, the decision was made to use the approach of naturalistic inquiry (e.g., Denzim & Lincoln, 1994; Glesne & Peshkin, 1992; Marshall & Rossman, 1995; Patton, 1990), which is a process-oriented approach to research which minimizes the researcher's manipulation of control of the study setting and allows for discovery and change (Patton, 1990). More specifically, to enable the researcher to obtain data which are relevant to the research questions for this study, systematic observation with an ethnographic perspective was used. That is, types and requirements of literacy tasks were recorded as they occurred in their natural context of instruction and they were then analyzed in a systematic way using the tools of the ethnographer. The same procedures were employed in collecting data on teacher's instructional assistance and children's learning engagement. All data were then analyzed to determine the recurring patterns; the results were then described using insiders' perspectives.

The Research Site

This study was conducted in an upper-middle class, suburban school district in Ohio. When this study was conducted, this district--with approximately 38,000 population--was served by five elementary schools, two middle schools, and one relatively large high school.
The school where the study was conducted had a population of approximately 600 students (Carter, 1992) and represented the largest elementary school in the district (Carter, 1992; Gee, 1994). The remainder of this section will present a discussion of the considerations behind the choice of the research site; the process of gaining access and entry; and a description of the research setting including a discussion of the programmatic features offered in the school; description of the classroom, the teacher and her students.

Choice of the Site

During the month of November 1995, together with the Director of Indonesia Project of the Ohio State, I had the opportunity to take a group of 14 Indonesian Customized Masters’ Degree students to do a school visit to Barrington Elementary School. On that day, we were received by the principal, Dr. Oakley. When describing the programs available for the students in this school, he said that the school offered two different programs as parents’ options: the contemporary program, which is more textbook-driven in its curriculum; and the informal, alternative program, which is more child-centered in its orientation. Coming from a country where school programs are uniform and decision-making is-- in most cases-- centralized, I was struck by the description of Informal, Alternative Program, which is nonexistent in my home country.
From that day on, I became curious to know further about the program. To satisfy this curiosity, I began exploring the idea around informal programs and child-centered curriculum. As the exploration of readings continued I realized that I needed to know more about the program from a practical standpoint, rather than conceptual arguments. Based on this realization I then directed my reading towards the enacted curriculum of the informal programs. Finding only a few examples, I started thinking about designing a study to examine what happened in the classroom as it is experienced by the students and their teacher.

With this general idea in mind, in the second week of December I called the principal to express my interest in doing a classroom-based observational research in one of the informal classrooms and to inquire about the possibility. While he indicated a positive response personally, as a principal, Dr. Oakley said, he could only communicate my research interest to his teaching staff. He promised to give my phone number to some informal teachers who might be interested in the research idea.

Several days later, I received a phone call from Christine expressing willingness for her and her class to participate in the study. In this conversation, we agreed to meet for an informal interview, which was scheduled for January 4, 1996.
The consideration around the choice of this research site was, then, consistent with a principle of "purposeful sampling" and a technique of "intensity sampling" proposed by Patton (1990).

**Access to the Research Setting**

Initiated with phone conversations with the principal and classroom teacher, and then followed by informal visits to and observations of the classroom before the conduct of the major research study, I gradually gained access to the research setting. One measure of acceptance by the students in this classroom which I gained relatively quickly was that, soon after the teacher introduced me to the class, some children tried to initiate a social conversation with me and showed me their work. During the first week of my informal observations several different children took initiative to invite me to watch them accomplishing some tasks. "Would you do me, Mr. Musthafa?" MP would say. "Look at my research book. I have been researching hamsters of all kinds," said DC initiating an "academic conversation".

After I got settled with a general focus of my redesigned proposal, I then formalized my access to this class by sending a letter to parents to request for their consent to conduct the study. In one or two days, the parental consent slips, which were attached to the letters sent to parents, were returned to the me through Christine.
All parents indicated their consent to the conduct of this study.

**Programmatic Features of the Research Setting**

Here, in this school, two different programs are offered to students as a parent choice: "Contemporary" and "Informal" programs. This study was conducted in one fifth-grade classroom of the latter type—Informal Alternative Classroom.

As stated in the school’s Informal Program Philosophy Statement (cited in Carter, 1992; Gee, 1994), the classroom under Informal Alternative Program adopts educational principles derived from those proposed by Dewey (e.g., 1956), Piaget (e.g., 1959), and Vygotsky (1978). Under this philosophical orientation, school programs are to "embody a child-centered discovery approach to learning. Curriculum is viewed as a dynamic interchange between the knowledge of the teacher and the needs and interests of children in a rich, positive, trusting, safe environment" (Carter, 1992, p.44). In discussing characteristics of the Informal Program, Carter further writes:

The teachers work with children from a knowledge of content areas and child development so that they can interact meaningfully with the child. ...The curriculum, then, is intended to meet the needs of the individual child when the teacher observes the child to be ready to learn new concepts. Children’s ideas and interests are utilized and developed...
These classrooms value a holistic approach to learning...embodied by integrating the various areas of the curriculum...
Informal classrooms value flexible use of time, space and materials...
[T]he whole child is understood to be a functioning unit. The child’s emotional, aesthetic, intellectual, physical, and social needs are seen as vital dimensions of the child’s overall school experience. (pp.45-6)

From this perspective, then, learning is a holistic, hands-on experience. The remainder of this section will describe the physical features of the classroom which represents a site for the study, the classroom teacher and her students which serve as participants in the study.

The Classroom

The classroom in which the study took place is located on the second floor of the wing of the school building; it is provisioned well with a wide assortment of children literature and trade books. This classroom shares a "project" room with a third/fourth grade class of the same programmatic orientation. The school library is located across the hall from the classroom. (Figure 3:1 presents a diagram of the classroom as it appeared during the study)

The Teacher

At the time of the study, Christine (the classroom teacher) was in her twenty-fifth year of her teaching career. She started her first year of teaching in a
different school which heavily relied on prepackaged learning materials (i.e., basal-based program); Christine decided to move to the school where this study was conducted because she "could not stand the idea of dividing children" (interview transcript: 1-4).

In a series of interviews Christine consistently indicated her belief in the nature of learning and teaching which was in line with the programmatic principles of the Informal, Alternative Program outlined earlier. At the time of the study, Christine holds a Master’s in Early Childhood Education and has taken a great number of courses leading to a Ph.D. She is well-read in children’s literature and is a frequent presenter at Children’s Literature Conferences at both local and national levels.

Another striking characteristic of Christine as a teacher was that she seemed to be always willing to put herself as a co-learner besides her more "conventional" roles as a classroom manager, facilitator of learning, and knowledgeable, adult authority figure in the classroom. This was evidenced in her observable eagerness to learn from what children had to say both in "private" and "public" forums. Also reflective of her teacher-learner stance was her tendency to be experimental with her teaching.

More importantly, Christine loves her job and takes students seriously. This conclusion was well supported by numerous evidence. For instance, she laughed at students’
funny, witty comments and their sometimes naughty jokes; she never showed any sign of boredom and/or frustration in assisting children constructing meaning for their individual learning.

The Students

There were twenty six students in this fifth-grade informal class when the study began; during the course of study (i.e., toward the end of the project #1: Immigrants All) one female student from another fifth-grade informal class joined in, making the total of 27. All the twenty-seven children come from upper middle class Caucasian constituency (Carter, 1992).

Data Collection

This section contains a discussion of the roles assumed by the researcher; the phases of data collection; and ways of collecting data and types of data collected.

The Researcher's Roles

The roles assumed by the researcher of this study could be conceptualized as ranging along the continuum of observation and participation (e.g., Glesne & Peshkin, 1992), with the first predominated. That is to say that most of the time the researcher assumed the role as an observer, watching what the participant did and how they did it, and listened to what they said about what they did.
Phases of Data Collection

Data were collected from early January through early June 1996. The study was organized in two major phases: The first two weeks of January 1996 constituted a preliminary phase. During this time, the first interview with Christine was conducted to get to know, in general terms, who she was professionally and what instructional plans she had envisioned for the rest of the school year. As well, during this time period, daily observational visits were made to get a general idea of how the instruction was run and how children engaged in the tasks provided by Christine. This preliminary data collection provided important input which enabled the researcher to refine some of his focus questions. From the second week of January through the end of academic year in June 1996 was the time where the researcher conducted an intensive and extensive data collection. During this second part of this data collection, data collection was carried out every school day to cover four major project units engaged in by the children and her teacher in this class.

Procedures of Data Collection and Types of Data Collected

Observational field notes. Observational field notes were made of how the classroom was structured, how literacy tasks were introduced, what resources were made available,
what task requirements were given to students, what value
statements were made by both the teacher (Christine) and
students, how students reacted verbally and nonverbally.
When the observation took place in the classroom, the
researcher typed his field notes directly using a laptop
computer; the entry, which was made daily, was dated and
given a "header" according to the date (e.g., FN4-5, meaning
Field Notes, April 5, 1996). The document was formatted with
generous margins on all four sides to allow ample room for
both marginal and reflective remarks (cf. Miles & Huberman,
1994). Later in the evening of each observation day, the
document was printed and reviewed together with the data
from videotapes and audiotapes which were documented that
same day.

When observation was made outside the classroom, the
field note entries were written long hand on a spiral
notebook; most of the time audiotaping was also conducted
using a pocket-size stereo tape recorder with a remote mike.
In the evening on the same day, the hand-written notes were
then converted into a write up on the computer using the
same format. Handwritten field notes were also made when
observing children at work and talking with them on task-
related issues.

During the review of data, the two records (written and
audio/visual data) were juxtaposed and used complementarily;
relevant information from audio- and/or videotapes was
incorporated into the typed field notes. In this way, a triangulation of data from different observation techniques was done continually.

The goal of this extensive field notes was four fold: (1) to record literacy tasks the students were required to accomplish; (2) to capture general flow of the whole-class instruction in which the teacher might give "verbal assistance" (Duffy & McIntyre, 1982) to her students such as content-focused explanations, task specifications, procedural directives; (3) to record learning (re)sources that the teacher might make available in the classroom to facilitate children in accomplishing a particular task; and (4) to record value statements (cf. Marshall, 1990) which might be made by the teacher and students about the tasks under discussion.

**Interviews with the teacher.** Four open-ended interviews were conducted with Christine, the teacher, during which time she talked about her rationales for the tasks she devised, her expectations of children’s learning from their engagement in the tasks, and her own observations of how children might benefit from the tasks. Each of these interviews were also used by the researcher as an opportunity to check his understanding of her classroom in general based on observational data he had collected thus far.
The interviews were conducted in the following distribution: the first interview was carried out shortly before the study was formally began (i.e., January 4, 1996); the second was in the first week of the first major project (February 14); the third interview occurred soon after the second and third project was introduced (March 8); the last interview was conducted soon after the daily observation was terminated (June 19). The reason for this distribution was need-based in nature in the sense that I wanted to have an interview as the need arose from my learning from the data that I had collected at a particular point in time. The purposes of these interviews were four-fold: (1) to gain knowledge of the teacher’s professional background, her philosophical stance relative to the nature of learning and instruction, and her perspective about the roles she can play in facilitating children’s learning; (2) to solicit her exact words to describe the rationales behind all major literacy tasks she devised; (3) to gain clarifications about her considerations in making some instructional moves which the researcher could, otherwise, only guess; and (4) to use the opportunity as on-going, formalized member checks (Guba & Lincoln, 1989).

 períodios das entrevistas. Duas "guilhadas" intuitivas foram conduzidas com crianças selecionadas. O primeiro encontro foi sobre a compreensão relativa a "Reader's Theater" e
"Play" (vignette writing). The second was about their general understanding about research and use of strategies to accomplish major literacy tasks as part of their projects. The purposes for these interviews included (1) to gain a better understanding of their "task representation" (e.g., Flower, 1990), (2) to get general ideas of how they approached major tasks related to their projects, (3) to enable the researcher to describe the "cognitive operations" they generally went through in order to accomplish the tasks.

**Whole class planning sessions.** Videotaping, audiotaping and field notes writing were carried out of the whole-class planning sessions. Here, in these sessions, the teacher communicated to students her plan for the day and the week. These sessions represented a very important locus of observation for the study because, generally, this was the place where the teacher told the class explicitly what she wanted students to do (tasks), suggested possible ways to go about completing the tasks (procedural assistance), and set deadlines for the tasks. It was also here where the teacher made public her value statements (e.g., Marshall, 1987b, 1994) of the tasks under discussion and students and teacher negotiated tasks and workload. In relation to the research questions, then, these sessions offered rich data on negotiations of tasks, either in their content /or their
form, or both. Here is also the place where data on "collective decisions" came from.

**Whole class instructional sessions.** In this class, generic content knowledge and skills (e.g., punctuation, genre conventions, math) were, most of the time, discussed in a whole-class instructional format. On this occasion, students might also put forth some proposals or suggestions. Also on this occasion, usually the teacher reminded the students of the due dates of certain tasks, suggesting them to set a priority accordingly. What was discussed and done by the class members was recorded in the field notes as data.

**Children’s "worktime" activities.** In this class, children were given one or two scheduled, large blocks of time (termed "worktime") daily where they worked on their projects. During this work time period (approximately forty-five minutes) children determined their own working agenda according to their own priority setting. Children were allowed to move about as the work demanded. It was during this time that intensive observations of "children at work" were conducted. The two interviews discussed previously were also carried out during work time periods.
**Children's work samples.** Samples of children's work were usually secured during work time directly from the children. In this way, it was possible for the researcher to ask the children, in a contextualized and timely manner, about what they just produced or created. The observations of and informal talks with the children were recorded in field notes.

**Children's oral presentations.** In this classroom, children not only did a great deal of reading and writing, they also did frequent oral presentations. How the teacher frame the assignment (cf. Brophy, 1979; Marshall, 1987b), what children presented and how they delivered it, and what follow-up commentaries followed their presentations were recorded in the field notes; video- and audiotaping was also concurrently made. The purpose of this technological recording was to provide additional data to serve as a triangulation (e.g., Denzim & Lincoln, 1994) to a similar set of data collected from different classroom events.

**Teacher-student one-on-one conferences.** In this classroom, normally, children took initiative to schedule a conference with Christine as they deemed ready to do so. When it happened, usually the children wrote their own names on the board, and, in response, Christine would make the time for this purpose. At other times, when some "Mom
Volunteers" were in the schedule to come to this class, Christine would announce to the class and offered them the opportunity to work with the volunteers--most of the time the work was limited to editing. When this happened, Christine gave her "conference book" (running records) to the Mom Volunteers and asked them to record what happened in the editing conference.

Observations of what was discussed in the conference--especially when it involved the teacher and focal learners--were recorded in the field notes.

**Whole class readaloud sessions.** In this class, whole-class readalouds were conducted everyday, normally after recess in the afternoon. While listening to readalouds a set of rules of conduct was applied: students were allowed to do certain things but not others. The way the teacher highlighted things mentioned in the story and children's comments on the reading were recorded in the field notes.

**Analysis of Data**

Wolcott (1994) suggests that in qualitative research, description, analysis and interpretation of data are not mutually exclusive. Given interrelatedness of the teacher's instructional moves with what students subsequently did and vice versa (e.g., Doyle, 1979; 1983; 1986) a decision was made to present the description of classroom events in a
chronological order (Miles & Hubberman, 1994; Wolcott, 1994) using a progressive disclosure technique (Green cited in Gee, 1994). In this way, the analysis was embedded in the narrative representation (Riesman, 1993).

More specifically, by using the research questions as a guide, analysis began with continual examinations of data during the data collection. Early steps in this analysis included the following. First, raw field notes were converted into a write-up, with generous margins on all four sides. The observations transcripts were then read many times and notations were made in the margins regarding the type of tasks being pursued, instructional support offered to students, and the relationship of what was observed to the concept of learning as embedded in the social context, which framed the study. This early analysis was made in order to gain what Glaser (1978) called "theoretical sensitivity" -- the ability to recognize what is important in data and to give it meaning (Strauss & Corbin, 1990).

In working with the sets of transcript data with some labels or marginal notations, I looked for threads that tied together bits of data. As the bulk of data for this study were in the form of transcripts, a decision was then made to find a helpful way to present the interconnected threads. The "Progressive disclosure" technique was the choice for this broad-base data analysis of the three focus questions for this study: what literacy tasks are, what instructional
support is made available, and how children engage in the
tasks. The reason for opting for this technique was that it
could preserve the "ecological context" (cf. Doyle, 1979) of
the instruction where all of the points of concern in the
study were embedded. In this way, cycles of activity which
made up each project unit could be identified.

Using this first-level analysis (as presented in the
progressive disclosure) as a base, "second level" of data
analyses were made with reference to research questions.
Given the magnitude of the data being used in this study, a
decision was made for this second-level analysis to divide
data treatment in three separate clusters. The first cluster
of data analyses concerned with literacy tasks across the
project units. The tasks were analyzed qualitatively using
criteria of cognitive demands, formats, adaptability, goal
coverage, and 'wholeness'. These criteria, presented as an
analytic tool in the form of a grid, were derived from
recent research and theoretical constructs proposed by,
among others, Brophy & Alleman (1991), Newmann (1990a), and

The second cluster of data analyses focused on types of
instructional supports provided by the teacher across the
four project units. This second-level analysis was guided by
the assumption that instructional moves were made
deliberately by the teacher to serve some instructional
goals. This analysis enabled the researcher to see recurring patterns which emerged from the data.

The third cluster of data analyses centered around children’s learning engagement. As this study was not meant to be a case study of learning engagement per se, a decision was made to focus only on two focal learners who worked on a common task: reading-to-write (e.g., Flower, 1990) or writing from sources (e.g., Many et al., 1996; McGinley, 1992). Focusing on two focal learners who worked on a common task made possible an in-depth analysis using a comparison/contrast format.

**Summary**

The purpose of the study was to observe, describe, and analyze literacy activities, instructional assistance, and students’ learning engagement as they embedded in day-to-day teaching-learning interactions in a fifth-grade, informal, project-based literature program. In order to explore the research questions which guided the process of inquiry, a study was designed based on a qualitative strategy in which naturalistic inquiry was used, qualitative data were collected as they embedded in instructional events, and content-analysis was performed on the collected data (e.g., Denzim & Lincoln, 1994; Glesne & Peshkin, 1992; Marshall & Rossman, 1995; Patton, 1990).
The researcher entered the classroom setting as an observer. He observed and collected data using multiple techniques and tools: field note writing, video- and audiotaping, interviews with students and their teacher, and collecting/ xeroxing children's work samples.

Initial data analysis was made during the early phase of data collection in order to gain "theoretical sensitivity", which enabled the refinement of focus questions to serve as a guide for further data collection. Data were analyzed and presented in a chronological order using a technique of "progressive disclosure" in order to retain the intertwined nature of the teacher's instructional moves and her students' engagement in their literacy tasks. This progressive disclosure, which represents a first-level analysis within each project unit under study, was then further analyzed to draw common threads across four project units under study.

A separate analysis was then performed of selected focal learners' learning engagement as captured through observation and interview, corroborated with their writing samples and source texts. Results of this analysis was presented as "sketches of focal learners' learning engagement."

Figure 3.1: Diagram of the classroom
### Mrs. Loubau's Schedule at a Glance '95-'96

<table>
<thead>
<tr>
<th>Times</th>
<th>Monday</th>
<th>Tuesday*</th>
<th>Wednesday</th>
<th>Thursday*</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30</td>
<td>Attendance and Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:40</td>
<td>Sun Rise: morning activities</td>
<td>Sun Rise: Morning activities</td>
<td>Sun Rise: Morning Activities</td>
<td>Writing Workshop</td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td>Writing Workshop</td>
<td>Integrated</td>
<td>Music: Mr. Miller</td>
<td>Integrated</td>
<td>Music: Mr. Miller</td>
</tr>
<tr>
<td>10:00</td>
<td>Gym: Mr. More</td>
<td>Worktime</td>
<td>Sun Rise: Worktime</td>
<td>Worktime: Integrated</td>
<td>Integrated</td>
</tr>
<tr>
<td></td>
<td>(String: 9:00)</td>
<td></td>
<td>(String: 9:00)</td>
<td>(String: 9:00)</td>
<td>Worktime</td>
</tr>
<tr>
<td>11:15</td>
<td>Lunch and recess</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:15</td>
<td>Read Aloud</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:30</td>
<td>Integrated Worktime</td>
<td></td>
<td></td>
<td>Art: Ms. Fischer</td>
<td></td>
</tr>
<tr>
<td>1:30</td>
<td>Afternoon recess</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:05</td>
<td>Sustained Silent Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:40</td>
<td>Clean-up and Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.2: Class schedule
CHAPTER 4

RESULTS OF THE ANALYSES OF LITERACY ACTIVITIES,
TEACHER'S INSTRUCTIONAL SUPPORTS AND
CHILDREN'S ENGAGEMENT IN THEIR PROJECTS

Results of the analyses of the study are organized in two parts and presented in two chapters. The first part, which is discussed in Chapter 4, consists of broad-based analyses of literacy tasks and instructional assistance in each of the four major project units; an extended summary of each project is also provided. The second part, which is presented in Chapter 5, is comprised of in-depth analyses of literacy tasks and instructional assistance across four project units, and fine-grained analyses of focal learners' learning engagement as they worked on selected common literacy tasks.

More specifically, discussion in this Chapter 4 includes a progressive disclosure of the four major projects, and an extended summary of each project unit. The progressive disclosure, which details the stream of instructional interactions in a chronological order, contains analyses of literacy tasks and instructional assistance embedded in the ecological context of teaching-learning conversations (Roehler et al., 1996).
An extended summary, which is presented at the end of each project unit, represents results of further analyses of the progressive disclosure as it related to the research questions guiding this inquiry. In a sense, then, the extended summary can be seen as a set of findings of the project unit.

**Major Projects**

This section presents the results of each project from the analyses of literacy tasks, instructional supports the teacher provided to her students, and literacy engagements the children had as they worked on their projects in the project-based literature program. Projects are described in the order in which they occurred.

**Project # 1: Immigrants All**

This major project was intended by the teacher (i.e., thereafter referred to as "Christine") to provide a context for children’s learning about "the way our country has been created by all people (who had diverse country of origin)" (*interview transcript:1-4*). The idea behind the emergence of this unit was Christine’s knowledge about children’s interest in exploring and learning about their environment. Christine believed that accommodating learners’ interest was vital to facilitate learning because the children would "feel invested in the process." (*interview transcript:6-19*).
In an informal interview conducted on the fourth of January 1996, Christine envisioned, among other things, having her class do the following:

The children will be reading chapter books...
And these chapter books will have all kinds of different people in them. And the main characters would be Hispanic Americans, or would be an Indonesian possibly, or Asian or El-Salvadorian... And then children will research their communities and how these people came to America (interview transcript:1-4).

On the following day, Christine introduced to the class the topic for this major project by characterizing it as “different places in the world” (observation transcript:1-5). Christine then laid out what the project would entail in terms of activities such as reading books or chapters and researching the subjects. Christine also outlined, in general terms, some requirements for the project. Christine told the children that “the study should not be on our own origin as that would be very limited in scope, whereas in actuality we come from many different countries” (observation transcript:1-5).

As at this point in time children were still in the middle of their "Ecosystem" project, a major project which had been going on for the past nine weeks, the preliminary introduction to the plan and requirements of the upcoming "Immigrants All" project served as a way for Christine to alert the children about what they were going to do in the following weeks upon the completion of the project currently
in progress. In this way, ahead of time, Christine gave the children a sense of direction as to where they were going to go and what it would entail in terms of learning experiences.

Two weeks later, as a first step, Christine initiated a brainstorming session with the whole class to locate important aspects of immigration and developed a big web on a poster-size sheet of construction paper (see figure 4:1).

The "Immigrants All" project did not appear in the class' weekly planning until several days later. That is, it was not until Monday 1/29 that Christine wrote on the board "THIS WEEK" with three big sections, with three to four items of subtasks underneath each section. That is, Section I: Michael Rosen (i.e., literacy extension activities), Section II: "Immigrants All" with three subtasks underneath (i.e., Country book reading and response in reading journal; Immigrant story and response; and Outlining).

On the following Thursday (2/1/96) Christine initiated a whole class brainstorming on what she called "Children Choices" which represented possible forms of representation of what children might present as evidence of their learning from the up-coming "Immigrants All" project. In so doing, Christine invited children's input and wrote their ideas on the board.

This brainstorming resulted in the following children choices:
- eye-witness page or poster
- dress-up and explain the country
- poster of the shape of the country
- newspaper pages
- travel agents-- brochures
- news show

Concluding this brainstorming session, Christine said to the class "Next week, when you collect information you need to think about what shape it would take in the report."

(observation transcript:2-1)

After having the children socially construct the possible forms of representation of what they will be learning from the "Immigrants All" project, on the following day Christine took the class to the "computer lab" to learn how to create an "outline" using Clarisworks. With every child sitting in front of the computer, Christine began the session by situating the children into the context of country study by inviting children’s ideas about interesting topics to learn. The following excerpt shows what happened during computer-outlining session.

Christine: What would be an interesting topic to write when you are talking about a country?

Child: Everyday life

Christine: What aspects of everyday life?

Child: Food

Christine: Okay, let’s organize that in our outline.

(Christine walked through the process and then asked everybody to try for themselves.)
The children then began to explore and worked with the computer outlining program by using and expanding the ideas that they learned from their country book reading.

Christine: What patterns do you notice?

Children: Indenting

Christine: Detailing.

(observation transcript:1-30)

To sum up, in this preparatory phase for "Immigrants All" project, Christine had alerted children of what they were going to do in the project, assisted them in identifying relevant issues related to the topic, helped them envision possible forms of end products to create, and introduced to them "outlining" as a way to organize ideas for their composing purposes.

By the time "Immigrants All" became a focus of children’s activity in the second week of February 1996, Christine had secured and provided children with a wealth of printed materials she herself checked out from public libraries including, but not limited to, over seventy books on different countries in addition to her own big collection of trade books and stories about immigrants.

Now that relevant aspects of immigration were already identified and recorded in the big web, and professionally-prepared materials were made available in the classroom, Christine provided children with choices. Children were encouraged to choose a country of interest to them as a
focus for further in-depth study. The provision of open choices enabled children to pursue a wealth of readings on the country of their own choice. As a class, these children explored a great number of focus countries, including El-Salvador (S2), Haiti (S14), Mexico (S26), Ivory Coast (S20), Senegal (S19), Japan (S6, S22), Vietnam (S8), Korea (S9), China (S16), Russia (S12, S17, S25), Sweden (S1), Armenia (S18), Poland (S13), and England (S15).

By giving choices to the children, Christine was able to cover a great number of countries and hoped that, through whole-class sharing activities, all children would learn from one another.

As children explored their country of choice, Christine devised tasks which she introduced in this early phase of the project including “country book response” and “library research.” Explaining the values of the tasks to the children, Christine said:

There is a danger of just gathering little facts and you are not reading your country information book. Instead of reading just facts and digesting facts about your country, you need to get the whole picture... I don’t want you just to learn trivia about your country...major rivers and major cities... You could play trivial pursuit games perhaps, but I don’t think you can get a broad picture of what your country looks like. And that’s why I want you to read the whole book and not just the fact pages of the back. And that’s why you have a country book response. Just to show that you have done that reading (observation transcript:2-13)
In giving literacy tasks, as clearly indicated in the excerpt above, Christine made explicit to the children the values of the tasks, made available resources the children would likely need to successfully complete the assignments, and specified procedures she wanted the children to go through in order to meaningfully learn from what they were going to do. Christine considered it very important that children went through adequate processes in working on their project. Christine’s process quality-control-- as opposed to final products-- was evidenced in numerous incidences where she rejected some children’s work because they were unable to show to her that they had gone through acceptable procedures in arriving at the final products (e.g., in math, business project, note taking for research).

Based on data from observations, interviews and literacy artifacts, in the following pages, descriptions of major subtasks will be presented, and analyses of cognitive loads of the tasks and teacher’s instructional supports will follow.

**Country study: Book response.** The above excerpt indicated that this country-book response served important functions in children’s learning from text. The expectations which came with this task required children to “read the whole book” in order to get “a broad picture of the country”
under study and give response to the book. This task, therefore, asked children to read for general ideas.

However, after three days passed by, Christine noticed that the majority of the children had not made any noticeable efforts to access the country/or immigrant story books which Christine had made available in the classroom. This might have happened because children in this class always had more than one big assignment going on at the same time, so they appeared to be busy all the time. Noticing the children's unusual reaction, Christine reminded the class of what they were supposed to do.

"We have a lot of good books (which she has made available in the class), but I haven't seen you accessing them. You should do that." Christine then began introducing some new books. She showed to the class a book entitled Chinese American and said that it's about famous people, like Michael Chang, for instance. "If you look at this book, you will find a lot of information on those people. But you have to read the book. This kind of book should be helpful for your country study." Christine went on to introduce a second book, My Fellow Album: A Family Album (by Alice Provensen, 1995), and told the class that this informational book would give them a lot of information about immigrant people. "But you have to read it," Christine emphasized what children were supposed to do.

Some children asked Christine how to proceed with the immigrant story response. Christine told them that at least it should explain who they (immigrants) are; why they came to the United States; how they came here; and why they came to this country. Christine then directed the class' attention to the big web to give an example of how to frame the response by pointing some branches which say "why did they immigrate?", "when
As indicated in the excerpt above, in an attempt to facilitate children's learning Christine provided children with easily-accessible books of relevance to what the children need to do, assisted them in locating information the children might want to know by highlighting the contents of some books, and demonstrated a strategy for framing information using the big web as a guide. Most obviously, Christine encouraged children to take responsibility for their own learning.

With all the supports provided to them, children selected their own books and invested their time and energy in self-directed reading. As children were given the freedom to choose their reading, the chances were good that they would find the reading personally meaningful. As children found personal relevance in their reading, learning might take place (e.g., Smith, 1988).

Children's positive comments on the self-selected books they read can be found in their responses in reading journals. Some examples, taken from reading journals written by some focal learners, are presented here (in their "original" spelling).
**S14--focus country: Haiti**

undated entry

Haiti...in pictures

I think "Haiti...in pictures" is a very good info book and has a lot of facts about Haiti. One particular fact found to be interesting is that only 1% of Haitian have built-in electricity!!!

(Christine’s inserted comments: WOW-- that’s shocking. You have done a nice job in keeping up with your responses)

2-8-96

Who Belongs Here?

I think "Who belongs here?" is a good book to tell how and when immigrants got here (I think WWI or WWII) and that sometime you miss the things back home, but some things are very interesting. They also mentioned something about immigrating through Ellis Island and to New York, as we have been talking about in class.

(Christine’s comments: I’m glad that there is some other source for our classroom discussions!)

**S13--Focus country: Poland**

1/31/96

Brooklyn Doesn’t rhyme

it’s a nice story about Poland. It tells a lot when I think about her and her brother being friends with my brother were friends it was neat [neat] how they lite the lights when it got dark. It was very very Good Good.

(Christine’s comments: I’m glad you enjoyed it! Would you recommend it as a read aloud or as part of future immigrant study?)

Feb. 9, 1996

Enchantment of the world Poland

I read parts of this book like what kind of music [music] they Play what they eat and
what they do for festballs [festivals] and about Lech Walnsa he was famish [famous] for what he did they were very interesting.

(Christine's comments: This is a long book. Did you read all of it? You can count this book for 3 weeks)

Library Research. To help children negotiate reading materials and augment their learning from country book stories and other sources, Christine engaged children in developing outlines and timelines.

Outline. From Christine's perspective, teaching children to develop an outline was an important part of literacy instruction. She believed that outlining could "help children with sequencing information in a report. So, [children learn] what should go first? What should go next?" (interview transcript:6-19).

To achieve her intended instructional goals, Christine took the children to "computer lab" to introduce and demonstrate to the children a way to develop an outline using "Clariswork"-- a computer word-processing program which has an outlining feature in it.

In order to develop an outline, children had to go through some thinking processes including defining a topic of interest, surveying the content of source texts available to them, comprehending information, and selecting information relevant to the topic on which they chose to
focus. The process of selecting information here was vitally important to ensure that children could not only form a coherent piece as a whole but also included the required coverage as demanded by the task at hand.

Specifically, selecting information required the children to engage in several intellectual tasks, including but not limited to, comprehending information presented in the text, differentiating important from less important information relative to the topic under study, and making decisions on which information to take in and leave out. And in order to be able to confidently select the information, the children needed to have clear objectives in what they were doing and what form of representation they were going to take.

Christine, as a teacher with over twenty years of experience, was well aware of the fact that what she asked children to do would impact on what the children learn. Christine, for instance, noticed that despite her frequent reminders, children rarely elaborated the factual information they had included in their outlines. This knowledge triggered a decision to revisit what she had asked children to do through outlining. Explaining results of her self-evaluation, Christine said, "I don’t think this outlining is a good way to do that [encouraging children to read for broad understanding]. Because it does ask for bits of information" (interview transcript:2-14).
This realization encouraged Christine to find another way to enable children to learn more about American history, that is, by having children select some important “events” and put them in a larger historical time frame. In this way, Christine hoped, “we are getting a little chunk of American history” (interview transcript:3-8).

Timeline. From Christine’s perspective, then, the task of constructing timeline in the context of this “Immigrants All” project represented a corrective measure. The intent was to make visible the historical connections between immigration and its contribution to the development of this country, as Christine explained in an interview:

In the sharing ... we work on a constructivist model here in the classroom, so that some children are learning about Japanese Americans, some others are about Chinese Americans. And when we put all that knowledge together, when we share it, then hopefully children will have a much larger picture of American immigrants. How they built our country and made it strong--starting with Native Americans, then Black Americans, English Americans, and, hopefully, will work up through American history to Vietnamese Americans (interview transcript:3-8)

This assignment required children to work together to decide on the historical time frame, and then to select from their notes historically important “events” and situate them within the historical time frame. In order to successfully complete this task, children needed not only to have
information about certain events but also, more importantly, to have understanding about the causal relationships of one event to another (e.g., Perfetti et al., 1995).

To help children do this, Christine instructed them to identify in their notes important events and dates and lay them out on the timeline they constructed on a long piece of paper. It was observed that the products were then posted along the wall where everybody in the class could see.

As there was no explicit discussion conducted on the timeline, it seemed that Christine assumed that children would automatically read and study the historical facts and events laid out on the timeline.

**Guest speaker.** To situate children into immigration-related issues, Christine invited a guest speaker, Mrs. H, who had empirical experiences in immigrating into this country. Mrs. H talked about her experiences in front of the class, and children took notes on the “lecture”. Christine understood that while children listened to one same lecture, they would result in different notes. Christine wanted to augment what children learned from this guest speaker by transforming their discrete notes into a big, coherent whole text. Christine decided to have each individual child contribute one sentence into this bigger text. Christine and children in this class called it “Sentence Strips.”
**Sentence strips.** From Christine's stand point, sentence strip served, at least, three purposes. The first was to give a context for the children to socially construct the knowledge they had individually acquired from listening to the oral presentation. Christine achieved this by having the children put the story back together from individual pieces. A second purpose was to give the children the opportunity to see their notes critically as they had to choose only one sentence of the notes they had written, and this one sentence should not overlap with other children's sentences. The third purpose was to provide children with contextualized practice writing in cursive, a skill which they will be required to have by the time the children enter sixth grade.

While Christine's idea about the critical thinking aspect of making selection and pragmatic value of writing-in-cursive was justifiable, she did not involve children in physically arranging those discrete sentences. Thus, Christine missed the opportunity to engage children in socially constructing the story through, for instance, a discussion of how to construct a coherent piece of large text out of separate sentences. However, although Christine dismissed that particular task, she had a strong reason to hope that physical product itself--the reconstructed story itself--which was displayed in the hallway for everybody in
the school to see, served some useful function: to instill in children a sense of competence (Katz & Chard, 1989).

**Field trip to German Village.** To help children appreciate more of immigration-related issues, Christine made arrangements and took children to German Village, where they could see for themselves historical artifacts related to German immigrants and German architecture. As part of this field trip, children were also given opportunities to listen to and talk with an expert from German Village Historical Center. Children appeared to understand what was expected of them as an integral part of learning from the field trip. Along the course of the observation and attending to lectures, children were observed taking notes, asking questions to the resource person, and exchanging comments among themselves. Some children made the time to also making sketches of German architectures as reflected in some houses in the field trip site (*observation transcript: 2-27*).

Upon return to the class, Christine initiated whole-class discussion. First of all, Christine took this opportunity to correct inaccurate information given in the lecture by the resource person by saying that most likely that the immigrants brought *cooked meat*—rather than fresh meat like what was shown to the children and Christine in the presentation by the resource person. After correcting
the information, Christine then invited children's comments on what they had learned from the field trip. Several children spoke up simultaneously expressing their differing impressions and opinions.

Receiving overlapping and differing comments from children, Christine then decided to have the children "do ten minute writing" on what they had learned from the trip. This ten-minute reflective writing resulted in some ideas on possible follow-up activities.

G.V. follow-up. Believing in the socially-constructed nature of knowledge, Christine used this follow-up activity as a way of "recreating the knowledge...by giving children choices in what they learned" (interview transcript: 3-8).

Drawing from children's input and extending ideas that children wrote in their reflective writing upon returning from the field trip, Christine wrote down the proposed topics on the board and asked the children to individually choose one of the topics. The topics and the number of children interested in them read as the following.

- Work on St. Mary's (5ss)
- Houses (5ss)
- Schiller Park (5ss)
- Schmid's (2ss)
- GV Map (2ss)

Christine noticed that those learner-proposed follow-up activities were mostly in the form of visual representation and only minimally involved generation of text. Attempting
to infuse her own instructional agenda, Christine put forth a suggestion to the whole class: "Somebody might want to consider working on German Immigrants."

It was later observed that none of the children selected the topic proposed by Christine because, as some children had indicated, they were "tired of immigration" (observation transcript: 2-27)

**Reader's theater.** To provide a context for skill acquisition and to augment children’s learning through immigrant story-book reading, Christine engaged children in preparing and enacting part of the story they had independently read in the form of Reader’s Theater-- an interpretive reading activity, where children selected their own material from a book, adapted it for presentation to the class, and portrayed the characters in performances to classmates and others (Tierney, Readence & Dishner, 1995). Explaining her pedagogical consideration, Christine outlined four reasons why she used Reader’s Theater:

Well, Reader’s Theater has many reasons why I do it. One is to help children learn the skills of being an oral reader as a presenter... to help them learn how to project their voice and practice that. And then reading aloud.

... Reader’s Theater is a way to help children have a good practice for a purpose in reading out loud. The third of course is to share their book with other children, and hopefully interest other people in the book they have read.

They are sharing an exciting part-- something that interests them in the book
they have read, and so, hopefully, it makes THAT interesting to the other children.

Oh yeah, one more thing. Even if other children who are in the group sharing don't read that book, it gives them a chance, at least, to read a little bit of the book with another student.

(interview transcript:3-8)

Based on Christine’s instructional objectives such as those reflected in the rationale outlined above, discussion in the following pages will be centered around the major components of the task involved in doing Reader’s Theater and cognitive demands of each, how children engaged in the subtasks and how the whole class negotiated the story being enacted. The data used in the analysis were mostly derived from transcripts of videotaped observation and audiotaped interviews with both children and Christine.

Selecting book part. Christine understood that, in order for children to feel invested in their learning process, they needed to have options about what they did. Children in this classroom were indeed given the freedom in selecting parts of books to share with their peers. From informal interviews with some children about doing Reader’s Theater, it was evident that they used certain “principles” in doing the selection. For example, examination of children’s interview transcripts revealed the following as commonly adopted “principles”: the part should be “exciting” or “interesting”; it should contain the “main part of the
story”; it should “involve many characters talking” (not only one narrator talking); the part which “does not require a lot of introduction”, and it “should not be the final part of the book”.

As reflected in the parameters they used, in order to successfully complete this task, children had to read the whole book, locate and select “interesting” and stagable part to present to the class, and figure out a way of introducing the story so that “the people will understand what is happening” (interview transcript:RT/SB:3-4). Data from the videotapes indicated that children devised different ways of introducing their stories. (An example of how a learner introduced her Reader’s Theater is presented in the ensuing section)

**Recruiting players & assigning roles.** Once children determined a segment of the story to share, they needed to recruit players. This part of the task required children not only to talk and negotiate with their peers but also make some decisions as to whom to ask to enact the roles. For example, S2, a ten-years old girl who directed “Grab Hands and Run”, had this to say:

> After choosing the part (of story to be enacted), I think about who will play the roles. I kind of wanted all girls in my play, ’cause they are easier to work with. I guess girls are more willing to help. (interview transcript:RT/SB:3-4)
The idea of recruiting players from the same gender seemed to be important to the children in this classroom as the same strategy was also applied by almost all the children interviewed (e.g., S1, S12, S14, S25). It was interesting to note that, while "easy" when viewed from the director's part, this same-gender recruitment strategy could pose an added acting challenge for the recruited player. This was especially true in the case where the players had to act out a role of a character from different gender. This cross-gender enactment happened in many performances, including the stories directed by two focal learners of this study: S2 ("Grab Hands and Run") and S12 (Letters from Rifka). In these two performances, and others in the same situation, boys had to talk, walk and behave like girls and girl actors like boys.

Rehearsing. After all characters' roles were filled, a child director needed to coordinate with other children who would be supporting the presentation of Reader's Theater in order to rehearse together. At this point children shared and negotiated their personal understanding of the part of the story to be presented. By role, the child director was in charge about how the story was to be enacted. For example, describing her responsibility as a Reader's-Theater director, S25 said "Make sure that the last practice is
polished enough. Everybody should know their parts.”

(interview transcript:RT/KT:3-4)

**Enacting the Story.** Reader’s Theater performances were usually begun with the child director introducing the general storyline, and then situating the particular part which she/he had chosen for the performance. One student (S6), who directed “Journey Home,” had an interesting way of introducing her Reader’s Theater.

S6: I read a book called *Journey Home*. And...this is about a Japanese girl...and...she just grabbed a packful of...she...uhh...I can’t tell this because it will spoil it [the enactment]. But...this is a beginning part of the book... Oh...I’m not supposed to take from the beginning part. But this is a good part... and...uh...I can’t tell you very much of anything except that...uhm... she is...I’ll tell you a little bit more AFTER, but I really can’t tell you anything now or I’ll ruin everything.

Christine: That’s good

A child: What’s her name?

S6: Yuki Yaki (wiggling, other children laughed) (and then S6 began enacting the story which was read by another girl [S9]) (observation transcript:3-4)

As the excerpt indicated, introducing a part the of the story for Reader’s Theater was a cognitively demanding job. It was probably more demanding than dramatic reading itself, because, when introducing the story, the director had to
consider several restrictions such as giving the audience (peers) some background information in such a way that they could understand the part being enacted but not by revealing the ending of the story. Those restrictions were pedagogical in nature and they were, most likely, serving as an agreed-upon way of doing Reader's Theater in this particular classroom community. This "ritual" was an integral part of the literacy event because, as S2 described it, "otherwise, other children who haven't read the book will not read it."

(interview transcript:RT/SB:3-4)

Open discussion. At the end of every performance, Christine invited comments and/or questions from the audience. At times, Christine herself asked some questions to the director and/or players. This post-performance discussion generated a great deal of discussion which covered numerous different issues. To illustrate the kind of discussions which naturally followed children's Reader's Theater performance, one representative example is presented here.

(S12 & S17 just finished presenting Letters from Rifka, by Karen Hasse, 1992. S12 read the narrative and S17 acted as Rifka)

Christine: Comments or questions?

S19: Where is she?

Christine: Where is Rifka?

S12: In Poland. She is sick.
S19: And she got it from a doctor?

S12: Yeah

Christine: How? How she got it from a doctor?

S12: It’s spray like... I don’t know what it is called... like to see if she had a disease on her and... she later got sick.

Christine: I thought the doctor was talking...[pause]

Sxx: (jumped in) Yeah.

Christine: as he was...[pause]

S1: (jumped in) He was sick because, probably, he examined someone with typhus and he got caught in it and he put a spray to it.

Christine: Ohh... the spray is just like a pesticide. It’s... to get lice. It’s to kill lice.

Ss: Ohh...

S1: Yeah, I don’t think it was that cause...

Christine: I think he [the doctor] is sick himself, and it’s airborne... he examined... He touched their bodies. Both Rifka and her Mom and all the family had to undress completely and they were examined with hands. So, it could have been from his hands onto her [Rifka’s] body.

S27: When the doctor said... uhmm... back there that she probably got it in Russia, the girl said ‘I didn’t get it from Russia’ and was thinking like that she got it from the doctor.

Christine: Yeah... from the doctor who examined her.

SXX: Oohh... That’s sad.
Christine: Yes,...from him. He is probably the one who spread her the disease.

(....)
Any other comments for Yyy(S17) and Zzz(S12)?
(S5 raised his hand)

Christine: You have a comment, Ddd (S5)?

S5: I was just thinking that they should sue the doctor for malpractice!

Christine: Yeah...that's true...He made many people die.

S21: Yea, but I don't think they could sue the doctor.

(silence)

Christine: That's a great part of the book to share. It's a very powerful book!

(...and then the class went on to discuss "typhus")
(\textit{observation transcript/RT:3-4})

As the excerpt indicated, the discussion which followed Reader’s Theater presentation was very lively and rich. In this particular excerpt, Christine invited children's comments and questions. Christine also put herself as an active participant in this literary event. She took the opportunity to pose a clarification question, which was also a question being asked by S19: "Where is Rifka?"

With this vital question Christine opened up the question-and-answer session. Christine also probed the "presenter" (S12) to elicit more elaboration on "how she [Rifka] got sick from a doctor?" Again that was a key question in this story-- a question which provoked
children's current understanding of the story. When Si’s speculation was off the line because of mismatch of background knowledge about the notion of "spray," Christine quickly provided the children with an explanation of what "spray"—in the context of this particular story—looked like. Christine's move was timely and vital in this case because without her participation the children would not have been able to come up with the idea that the disease may have come from the doctor.

This post-presentation discussion was, then, an important literacy event in this unit. Together with children, Christine was able to use this event to negotiate their collective interpretation of the story. In this way, the discussion went far, necessitating everybody to bring in their general knowledge and life experiences to the text.

**Project Presentation.** This "Immigrants All" project culminated at an "Open House", an important event where children displayed and explained their projects to an audience. Intended as a context for project sharing, the Open House took place on March 13, 1996 in the classroom and the event was attended by children's parents.

The project sharing was informally begun by Christine by welcoming the guests. Christine then introduced to the audience the context of children's projects, and invited the
guests to observe the projects and talk directly to the children.

The knowledge representations which children had chosen to construct were diverse both in content and form. For example, some children wrote conventional, descriptive and illustrated reports on different countries (e.g., S12, S13); others created newsletters detailing various features the children considered unique to the countries under study (e.g., S2, S6); some created brochures highlighting places of interest to foreign tourists (e.g., S14, S22); others constructed interviews with immigrants based on their country book readings and packaged dialogic writings in the form of video presentations (e.g., S1, S9); and still others created a poster-size shape of the country under study with detailed notations of features of the country they deemed important. All of these varied multimedia representations were shared together in the informal atmosphere of the Open House.

**Reflection.** The next day, Christine initiated a whole class discussion focusing on what they had learned from the project by posing questions and answers to the following questions: "What makes an outline good?", and "What makes a representation good?" The answers to the questions resulted in a list of learner-generated criteria for assessing the project they had just completed. These criteria included:
Good Outline

- has details or explanations of new topics (S1)
- related to important things, including food; immigrants; what the country did to help; everyday life (S10)
- categories of information (S26)
- not just facts; provide information (S16)
- should not be too elaborate (S1)

Good Representation

- think about reader/viewer (S24)
- good pictures (S21)
- has writer's voice (S19)
- simple (S14)

(observation transcript: 3-14)

With these sets of explicit, learner-generated criteria, children were then asked to evaluate and grade their own projects on an evaluation sheet prepared by Christine. In doing this self-evaluation and grading their own work, children were also required to explain to Christine, in writing, why they gave the grade as they did. In a one-on-one conference, each individual child and Christine then talked about the relative success of their projects. In this session, children were to explain their position about the way they graded their work; but, at the same time, Christine did her own evaluation of children's projects independent of what had been discussed with the children. Commenting on her practice, Christine said:

"Parents will have the opportunity to see two versions of learning assessment. One is self-assessment made by each individual student; the second is my own version of the evaluation of their learning" (Christine's side talk: 3-25, 10:30)
The practice of assessment using multiple reviewers was consistent with constructivist pedagogy (Jonassen, 1992), the learning-teaching philosophy Christine had been subscribing to (interview transcripts: 2-14; 6-19)

**Summary of “Immigrants All” project.** As described in the preceding sections, for the instructions in this classroom, the themes, which represented the curriculum, were developed in early-year whole-class planning during the fall quarter 1995 with children’s input. With these learners-generated theme as an umbrella, and individual learners’ self-chosen topics, the teacher devised enabling, supporting, and enriching tasks. To facilitate individual learners in learning from what they had decided to do, the teacher then provided various supports: making available professionally-prepared printed materials relevant to the general theme and specific topics under study, providing direct instructions on general learning procedures in a whole-class format, and conducting one-on-one conferences with individual learners to facilitate and augment their learning from their engagement with self-chosen reading and writing projects.

To take the class as a whole, there appeared to be a balance in terms of social organizations for children’s learning: some tasks were assigned and instructions given individually, some in small groups, and some others were
conducted in a whole-class format. At the end of the unit, the teacher engaged learners in doing reflections and self-assessment.

More specifically, the remainder of this section will summarize the patterns which had emerged from multiple sources of data as they related to the research questions. The patterns were identified by applying marginal notations to represent a major function of the teacher's moves in each activity segment which reflected the instructional focus. From these separate marginal notes some categories were developed which indicated the distinctive function of each major task in its relation to the overall instructional objectives for the whole project unit as announced by the teacher. The categories include: "establishing a theme as a commitment", "establishing a common knowledge base", "conducting the project", "publishing the project", "reflecting on learnings and assessing own achievement", and "processing further for future improvement."

**Question # 1: What teaching-learning patterns are indicative of this particular unit in this project-based literature program?**

Observational data on the day-to-day flow of teaching-learning activities during the course of this "Immigrants All" project revealed that the conduct of this unit had a linear progression. That is, the project was conducted in several phases:
(1) **Establishing a theme as a commitment.**

With reference to early-year planning, children and their teacher renegotiated the theme before the theme was actually taken as the class' agenda.

(2) **Establishing a common knowledge base.**

With the agreed-upon theme established as a commitment to engage in together, the whole class then constructed a web to identify important aspects related to immigration issues. This whole class brainstorming enabled the class to establish a common knowledge base.

(3) **Conducting the project.**

With the common knowledge based acquired from the whole class discussion, individually or in groups, children started to read, write, create artifacts. Teacher's role at this stage was as a facilitator who could provide individual assistance with her counsel and scaffolding in one-on-one conferences, until both children and teacher felt satisfied with what had been learned up to this point.

(4) **Publishing the project.**

This is the stage where children celebrated the representation of their learning. Here the products of their hard work were made public in an "Open House".
Reflecting on learnings, assessing own achievement.
At this stage, children shared their experiences, exchanged personal comments and conducted self-assessment.

Processing further for future improvement.
Upon concluding their project, in response to teacher’s prompt, children were challenged to go beyond what had been experienced in order to envision ways to produce a similar but better-quality project.

Aside from its linear-progression, the "Immigrants All" project was characterized by a high degree of learners’ contribution in shaping the experienced curriculum (e.g. Harste, 1994). As children worked on their self-designed projects, it was observed that they engaged in self-directed learning. Teacher’s assistance was given in one-on-one conferences as the need arose.

Question # 2: In what ways does the project get negotiated in this curriculum?

Examination of observational data which captured numerous group decision-making events revealed that project-related decisions were made in a particular way. In this particular project, generally the needs and/or options were brought to the learners’ attention by the teacher. The children then responded either by (1) taking a vote to
decide whether or not to take the option; (2) proposing alternative ideas of their own or (3) by indicating agreement to what had been indicated by the teacher without further negotiation. These three different ways of group decision-making were applied by the children in all issues facing them as a collective. In whichever way a project-related decision was made, then, it was decided by the majority voice of the learners.

**Question # 3: What is the nature of tasks that children are engaged in within this project?**

The analyses of the wide range of tasks engaged by the children gave insights into cognitive demands of each individual task and their interrelationships across the tasks. This internal structure of the tasks and its relationships represents the nature of the tasks in this project.

The major tasks and their relationships could be characterized as follows.

- Individually, the tasks demanded relatively complex cognitive operations (e.g., Newmann, 1990; Stevenson, 1990) as they engaged learners in evaluating and organizing contents (e.g., outlining, timeline), and presenting messages with a specific purposes to a specific audience (e.g., reader’s theater).
Individually, with the exceptions of sentence strips, all of the tasks required learners to generate "extended discourses" (DeGroff & Leu, 1987), composing messages in the form of coherent written paragraphs or reports, and oral presentations.

Collectively, the tasks were integrated as they added up to the achievement of general objectives of the project unit.

Question # 4: What instructional supports does the teacher provide in this project?

The teacher provided a great deal of supports to enable, facilitate and enrich children's learning prior, during and after their engagement with their projects. In order to enable content analyses of the observational data on instructional moves, marginal notations were made on the transcript focusing on the types of instructional assistance provided and their major facilitating functions related to students' learning. Based on these separate labels of instructional assistance some catagories were developed in order to characterize the types and functions of the assistance. The categories included "content sources", "strategies", and "maintenance and feedback". The remainder of this section focuses on the types of instructional supports received by learners during the conduct of this particular project.
Content sources in this particular project took the form of commercially-prepared reading materials (e.g., countless number of children books in various genres) and experienced resource persons (e.g., an immigrant and historian). Strategies or procedures were those explicit, operational action-plans the teacher taught or shared with the learners to help them juggle with their resources in order to learn optimally from the project (e.g., consulting the big web to generate and frame ideas for report writing). Maintenance and feedback took many different forms and occurred in various different contexts (e.g., the teacher repeatedly assured learners of the value of the tasks; the teacher challenged learners to come up with better representation of their knowledge).

**Question # 5: Within this project unit, what is the nature of children’s learning?**

Data from observations indicated that within this particular project, children learned from multiple sources of knowledge through different modes of engagement, and in various social organizations. The sources of knowledge through which children learned included professionally-prepared texts, resource persons, artifacts from different countries, and peers' texts and presentations. The learning modes they engaged in while learning from the projects included observation, reading/writing, enacting stories, and
oral presentations. All of those learning experiences were carried out as individual exploration as well as group work.

**Project # 2: Play: Drama Production**

On Thursday, February 29, 1996, when the "Immigrants All" project had been a focus of children's activities for two weeks, Christine initiated a collective self-assessment of the on-going quarter by drawing children's attention to the list of themes the children had agreed to do for the school year. "Play" was one of the choices members of this classroom had decided to do. But when Christine mentioned the idea of "doing a play as an extension of the immigrant unit," the children did not respond enthusiastically. Sensing this less-than-full enthusiasm, Christine asked the class if they still wanted to do a play on immigrant or other topics. Some students expressed their interest, but some others indicated otherwise. A male student (S26) suggested revoting on the issue, and Christine agreed to take his recommendation.

The voting, as Christine made clear, was on two important issues: (1) whether or not the class was going to do a play; and (2) if decided to do a play, the topic should be related to immigration or on an entirely different topic. With their eyes closed, the children were to raise their hands to indicate support for an option Christine said...
outloud. The voting resulted in 18 votes for play and 4 against it; 14 votes for topics unrelated with immigrants and 7 for an immigration-related topic. The decision, then, was made collectively as the majority vote indicated.

Reinforcing the class decision, Christine said to the whole class that "We are going to create a play on a new topic of your choice. Your job now is to start thinking about a topic you are interested in for our play (observation transcript:2-29).

Unlike "Immigrants All" project, whose curricular content was dense as it was intended by Christine as a context for teaching social studies and American history, "Play" project was meant to be an integrating literacy event where children could integrate their literacy learning, while its curricular theme was left to children as a collective to decide. Christine's primary objective here was, then, to engage children in integrated literacy activities. Christine explained:

(T)hat was completely up to them. I gave to them several options and talked to them about what my [previous] class had done. So, the objectives were that [children] write in different genres which I wanted them to do and to have the experience of doing the oral presentation, do the role playing and all the other things that go along with that. So, I really didn't care at all what the subject of the play was (interview transcript:6-9).
On the last day of the "Immigrants All" project, Christine reminded the class that they "[had] not made any decision on the [theme for the] play." (observation transcript:3-14). Christine then initiated a whole-class brainstorming about what kind of play they wanted to create. Almost all children contributed ideas at this stage. With Christine serving as a facilitator, this "getting ideas on the table" session ran smoothly and produced a great number of possibilities. The proposed ideas included "play from one book," "news show," "short stories," "scene books," "famous people's lives," "Reader's Theater with a more elaborate chapter and acting," and "famous characters from books." When this last idea was proposed, some children said "yess!!," and S14 added "and enactment why they got awards."

At this point Christine commented that she had sensed some consensus, but still she invited some more fresh ideas. Because, as Christine added, "creative ideas usually come last." After exhausting children's ideas, Christine shared her past experiences in play production.

Based on her own experience with previous classes, Christine then introduced to the class one additional requirement to take into consideration when deciding on a play. That is, the play had to have at least thirteen main characters considering the number of students in this class.

The incorporation of this limitation eventually led to one agreed-upon collective choice: the play was going to be
about "famous characters from books." This choice was supported by 18 votes out of 22 children who participated in the voting (observation transcript:3-4). Thus, the selection of the topic for the play was a majority decision.

The "Play" project did not become a focus for children's activities until Monday, March 25, 1996. On this day, Christine wrote on the board: "THIS WEEK". Underneath this heading were three sections, with three to four different activities under each. Specifically, the first section was "Our Play" with three different activities to do: (a) planning the theme, (b) deciding on book characters, and (c) writing vignettes.

On the following day, to establish a common background knowledge for the whole class, Christine brought into the classroom and shared with the children a videotaped "Oscar Awards", a TV program which was broadcasted the night before. Before the video was played, Christine explicitly instructed children to "think about ways you are going to present the awards for your book characters." (observation transcript:3-26). In watching this professionally-produced video, then, children were guided by a specific objective: the question of how to best present the awards for their book characters in their yet-to-be-created play. Upon watching the video, Christine initiated a whole-class brainstorming by inviting children's input to come up with
an agreed-upon way of presenting the awards to the characters in the play they were going to create.

Aside from the "Oscar-Awards," in the following week, Christine also took children to two other play performances: "HISTORY, HERSTORY," a play production by another fifth-grade class, and "SHAKESPEARE" by a sixth-grade class in another school. In each case, before leaving the class, Christine reminded the class to watch the performances "for ideas", and each was followed by whole-class sharing where the children exchanged their comments and evaluation of the performances they had just watched.

By giving children the opportunities to watch others' performance, and encouraging them to watch it for ideas, Christine was able to help children focus their attention on the show. By engaging children in whole-class sharing upon return from the show, Christine was able to provide a context where children could freely share their personal impressions and/or evaluation and negotiate their understanding with their peers to establish a common knowledge base in the context of their common goal: their own collective play production.

**Whole Class Response Sharing.** Children's individual ideas resulting from watching the "Oscar-Awards" video (3/26), "History, Herstory" (4/10) and "Shakespeare" (4/11) were then augmented by way of whole-class sharing mediated
by Christine. This socially-constructed knowledge of the staged work of knowledgeable others could serve as a very important knowledge base for the children who were going to produce a play for the first time. In this way, then, Christine was able to engage children in socially constructing a common knowledge base about play in the context of their own collective need. This is consistent with Christine’s belief that the perceived need represents a vital precondition for learning to take place (interview transcripts:2-14; 6-19).

**Group planning.** With “People’s Choice of Book Characters” as an orienting ultimate, targeted goal, Christine systematically broke down the “job” into a series of smaller weekly and daily jobs for the whole class to do. For example, following up the class decision on the way to present awards to book characters, the next day, Christine initiated a series of whole-class planning: brainstorming, discussing and deciding on several issues including “book characters” (e.g., who they were, how many nominees, from which books), and new issues coming out of the discussion (e.g., whether to use the category of “books”, “books & characters,” or simply “characters” ?). This group planning and collective decision making was continued on the following days to finalize the issue of categories of book-characters to include in the “Play” project (observation
transcripts:3-28; 3-29). On the following two days, the group planning was still continued and this lengthy process resulted in a set of agreed-upon collective decisions: which books and characters to choose, which vignettes to write and who were going to write them (observation transcripts:4-1; 4-2; 4-3).

The same procedures were also adopted to decide on "name of the play" (4/29), "students who would serve as presenters," "plans for scenery, props and costumes" and "designing front and back covers" of the playbill(5/6).

Along the course of planning activities for this project, Christine encouraged children to voice their desires and concerns and she acknowledged them as an important part of the curriculum. Christine believed that "children will do better if they feel that they are in control [over what they do]" (interview transcript:6-19).

**Writing Vignettes.** Based on a series of earlier collective decision making, children voluntarily signed up for vignette writing. Some children wrote individually (e.g., S6, S14, S26), some others did it collaboratively with their coproducers (e.g., S2&S7; S12&S15).

Christine reserved a time slot for working in the computer lab for Wednesday, April 3, 1996, but this computer worktime was cancelled as the class still needed to settle some logistics for the play: division of work. Upon
finalizing the detail of job assignments, Christine told the class that she "would need to coach [them] to write vignettes," a genre which was new to this class. Christine explained what she meant by saying that "[vignettes are] stories or scenes from the book for play." (observation transcript: 4-3). In a whole-class format, Christine then highlighted some genre conventions for writing a play, including the use of colons (:) after "Host"; the use of brackets (…) to indicate "stage directions". Christine told children to "skip a space" between the character's lines (observation transcript: 4-4).

As the narrative records indicated, then, Christine taught in response to what her students displayed as needs—which were embedded in on-going activities-- rather than followed a prescribed list as her guide.

Upon explaining the meaning of vignette and demonstrating how the conventions of this genre work--namely, after establishing declarative and procedural knowledge of vignette-writing as a genre, Christine then took children to the computer lab. In this lab, children had the opportunity to use mechanical features of vignette-writing genre which they had just learned from Christine.

Children in Christine's classroom appeared to be always aware of what they could choose for their learning. The same realization was also evident in vignette writing. Although Christine did not make any explicit attempt nor comment to
suggest making connection between performing Reader's Theater and creating a play, it was observed that her children made the transfer automatically.

To further pursue this observation, informal interviews were conducted with some children who served as main writers of vignettes. The questions centered around "how they chose the segment of the story for their vignette," and "how play differs from Reader's Theater." The transcript of their talks revealed that they applied the same principles in deciding which part of the story to write for vignettes as those in Reader's Theater. For instance, S15, who was not interviewed when he did Reader's Theater, told me the reason why he chose the section as he did:

I guess I chose this part because this is one of very important parts of the book. Davy Duck plays a very important part after it comes to life again."
(interview transcript: VW/PM:4-17)

In separate interviews with other children, the same principle was found to be in operation as well. Some representative examples from transcripts:

"The part that is like a main part. The part where the people are talking. Not the final part" (interview transcript: VW/SB:4-25)

"Select an exciting part. It has to be a main part." (interview transcript: VW/CP:4-25)

While children perceived that the criteria for "choosing the part" in the two contexts were the same, they
understood that the demands of "Play" differed from those for Reader's Theater. Trying to differentiate the nature of the two activities, S19-- an articulate, 11 year old girl--had this to say:

Reader's Theater is right from the book. We explain to the class where the part comes from. But in a vignette, we cannot explain it. We have to act it out. In Reader's Theater you have everything exactly what the book says. But in vignette writing, you have to make changes. Otherwise you are breaking the law (laugh). If the section doesn't explain the story, we have to make up lines. That's why it [vignette] is different from the [source] book. The vignette doesn't say exact same things from the book. Reader's Theater is telling. Play is showing. So the challenge for vignette writing is that we have to change the story from the book which tells to make it show it [the story].

(S2, who was sitting next to S19, jumped in)
S2: For instance, when somebody is sad, she has to act sad. Not just say 'I'm sad'.
(interview transcripts:VW/CP-SB:4-25)

Thus, while Reader's Theater required children to do dramatic reading of an exciting, main part of the story, doing a play posed more complex cognitive demands. That is, children needed not only the ability to comprehend the story and enact it, but they also had to have a coherent picture of the whole story, which might require them to fill in the gaps so that the written vignette could stand alone as an independent, self-contained and coherent piece.

Christine's main assistance at this stage of text production was given to individual writers in a one-on-one
conferencing format. To illustrate, what follows is a typical example of vignette conference:

(In this computer lab, S14—a prolific writer who served as a focal learner for this study—had a conference with Christine. His vignette was based on The Castle in the Attic, by Elizabeth Winthrop, 1985)

Christine read through S14’s vignette. She then asked about the opening of the vignette. Christine suggested incorporating some wordings to indicate stage directions. For example, “curtain opens”, Christine added. Christine asked S14 if he would need a “prolog” to help audience understand the story. S14 said that he would need that. Christine commented that S14 might want to try out this vignette to those who had not read the book, and see if they understood what was in the vignette.

(observation transcript:4-19)

Following up Christine’s suggestion, S14 looked around and approached S12, who was working with S15 on a computer, and asked if he had read The Castle in the Attic. S12 & S15 both said they had not. S14 then read his vignette to S12. S12 listened but was still attending to what he had been doing on the computer. When S14 ended his reading, S12 commented “That’s pretty good.”

S14 looked unsatisfied with the way S12 responded. Looking in hesitance, S14 then asked S15, who was working with S12, “XXX (S15), do you think I need prolog or some introduction to help audience understand the story?” S15 replied: “I don’t think so.”

(observation transcript:4-9)

As the excerpts indicated, both Christine and her children were aware of the vital role of audience awareness. They made efforts to “help audience understand the story.” As vignette writing was a new genre for children in this
class, Christine also explicitly brought to the writers’ attention the mechanical conventions of the genre at the point where the children needed the rhetorical devices in the context of their own writing. For Christine, this contextual need represented a basis for explicit teaching (interview transcript: 2-14; 6-19)

For this “Play” project, children in this class produced fourteen 3-5 page vignettes, which were named after their respective source books: *Summer of The Monkeys, Shiloh, The True Story of The Three Little Pigs, Mossflower, A Castle in the Attic, Amy’s Eyes, Homecoming, The Ear, the Bye, and the Arm, Matilda, Number the Stars, Daniel Hall, Julie, Doll in the Garden, and The Spell of the Sorcerer’s Skull.*

**Enacting vignettes.** Audience awareness is vital in the production of a self-explanatory, communicative piece of text. To help children develop this awareness, Christine devised this “Enacting Vignette” activity as a separate task for children to engage in. Here, children’s work was put to test, in front of peer audience who might or might not be familiar with the story. Like what she did in Reader’s Theater, Christine asked children to “stage” their work before their peers and encouraged the audience to give comments and/or ask questions.
As Christine explained to the class, this session was conducted "to test if [children's] writing is communicative enough as the script should be able to show the story, not by telling it verbally." (observation transcript:4-16)

As has been aptly articulated by S19, proactively accommodating the audience's need was a big challenge in vignette writing. With peers serving as audience, the discussions which followed children's vignette presentation proved to be a very productive activity. What follows are examples of the kind of questions the audience asked upon watching the vignette tryout.

S12 & S15 presented their jointly constructed vignette entitled Amy's Eyes.
Upon seeing the presentation, other children and Christine made some comments, including issues on clarity of characters (e.g., "Who is Mr. Cloud?"), and ending. About the ending, S6 commented, "Your story does not have ending. Like running, you're only running, and then stop."
Audience's overwhelming cry for clarity had led to a sign of frustration. One boy (S11) responded to audience's concerns by saying "If you don't understand it, just read the book!"
To this voice of frustration, a girl (S27) reacted "One of the challenges for us to learn in this case is how to relate to audience." (observation transcript:4-19)

By engaging children in this activity, Christine was able to create an authentic context for the children to experientially serve both as producers and consumers of vignettes. In this way, Christine was able to transform the
abstract notion of "audience awareness" into something concrete which children felt themselves as empirically real and, therefore, more readily understandable.

**Play performance: Staging the "Golden Book Awards".** Play production required a great deal of time, energy and other sources. Of immediate relevance in the context of this study was coordination both in terms of "softwares" (e.g., which vignette went first and which one came after; getting children ready with their lines) and "hardwares" (e.g., determining costumes and props; getting sceneries ready and easily accessible). In order to get ready for performance, children and their teacher had to go through several layers of preparation. For example, in terms of text production alone, by the time the children were ready to stage their play, they had written several more texts beyond the vignette writing, including "between scenes speeches", "bios", "vignette summaries" and "playbills," each ranged in magnitude from multiple sentences to multiple paragraphs.

**Drama Rehearsal.** Christine had to work within numerous restrictions, some of them resided beyond her personal control as a classroom teacher. One illustrative problem was the opportunity to use the auditorium as a place of the play rehearsal. Christine shared the problem with her children,
and, as a community, together they found a way to overcome the problem.

There was more to teaching than just helping children do their academic tasks. Helping children to serve their community was considered important by Christine. As it was repeatedly captured in general-observation data of this study, Christine made a great deal of conscious effort to build a sense of community in her classroom. And her children understood that their relationship with Christine was more than just teacher-student or adult-children role-relationship. "It's like family," as S2 once characterized it.

With a psychological climate such as this one, Christine then took the children closer to the reality of the stage. That is, children were afforded opportunities to explore the stage both as a space to play in and as a set of facilities to support the play performance. Christine let children familiarize themselves with the stage and its properties.

After getting some sense of familiarity with the stage, the children were then asked to rehearse their play. At this stage, children tried to translate their understanding of the story as a vignette into verbal and behavioral acts. Christine, serving both as an informed observer as well as the "Play Director," gave comments on children's performance. Christine did it by, first of all, mapping
closely children's verbal description in their vignettes and the visual presentation on the stage. Christine also gave the children feedback on the enactment of their stories.

Here is a representative example from observational data:

SI & S10, coproducers of a vignette entitled Matilda, enacted their vignette. In the vignette there was a key incident which spanned in two days and the first and second days had a causal relationship. After seeing the rehearsal, Christine asked SI&S10: “How are you going to show that the day has changed?” Quickly, the two coproducers negotiated some possibilities and then came up with an agreed-upon idea. SI then said, “We’ll write a sign saying 'The following day’” Christine commented that the idea was good and it would work. (observation transcript: 4-29)

In giving children some feedback Christine tended to focus on locating problem areas rather than giving answers to the problem. In this way, Christine was able to demonstrate to the children a way of “evaluating” a situation and, at the same time, she left learners with the responsibility for finding the best way to handle their perceived problem. The learners were, therefore, encouraged to take responsibility for their own learning.

At this rehearsal stage, Christine also assisted children who were to serve as “presenters” by coordinating them and, as required, suggested some possibilities for framing their talks. Christine appeared to be consistent in her way of “helping” the children do their job: she tended
to help them see possibilities and let the children make their own choices. The following excerpt might help exemplify Christine’s way of extending instructional assistance:

S3, a “below average” achiever, had been preparing speech and was practicing delivering an introduction to other children’s vignettes. Christine thought that the speech was too short, and suggested that S3 make up more lines by improvising. Christine said, “You are good at that [improvising], XXX (S3)!” (observation transcript:5-2)

After all the “hardwares” (props, sceneries, costumes) were ready, Christine got the whole class together to do whole-program rehearsal. Before they actually got started with this whole class practice, Christine oriented the children by saying that “The goal for today is to rehearse to go through the whole program, from the beginning to the end.”

During this general, final rehearsal, it was observed that some presenters were still struggling to get settled with their lines. Christine suggested that they practice more so that they could talk naturally.

When asked to comment on S3 & S13, who were observed to have a problem memorizing their introductory speech even on the last day of rehearsal, Christine said, “Well, I don’t expect them to memorize the lines, because it would be too hard for them. Even announcers on TV have a prompter”
(observation transcript: 5-6). In another interview, Christine shared her belief that, while encouraging children to do their best, it was also vitally important to accept each individual child as unique in her/his potential and limitations. For Christine, a belief such as this one constituted “a manifestation of trust” (interview transcript: 2-14).

The performance of the “The Golden Book Award”-- the official name of the play which was overwhelmingly voted by 12 out of 17 children participating in the voting on the name of the play on April 29, 1996-- was carried out for two consecutive days: Wednesday and Thursday, May 8 & 9, 1996. The performance was a great success and it was videotaped by the “Researcher in Residence.” On Monday of the following week, the play videotape was shown to the class and used by Christine as a common basis for children to reflect on and as a springboard for children’s self-evaluation.

Reflection and self-evaluation. As also happened in the “Immigrants All” project, upon publication of “Play” project, Christine created an opportunity for the class members to orally share their learnings with their peers, in a whole-class format. In addition to this oral sharing, however, for this “Play” project, Christine asked children to write an essay which evaluated their own performance in
creating, acting, and helping the play production. On the board, Christine wrote what she wanted from the children:

**Play Evaluation**

- How would you rate your performance in creating, acting, and helping with our play? Give examples to explain your answer.

- What advice would you give to future playwrights?
  (observation transcript: 5-13)

After Christine finished writing the instructions, she asked a volunteer to identify how many "jobs" the task asked them to do. Before the children began working on the assignment, Christine reminded them by saying "You might want to spend some time planning before you start writing a rough draft." (observation transcript: 5-13).

The excerpt and narrative records showed that in giving the assignment, Christine explicitly laid out the issues she wanted the children to address, and suggested a strategy to go about doing the task (i.e., planning). Equally important was Christine's assistance in specifying a target audience for children's writing. That is, the children here were explicitly required to address their advice to "future playwrights", which were, as Christine orally explained to the class, other students who were currently sitting in the fourth grade. On a different occasion, Christine said: "If the people in my class decided to do a play next year, I would like for them to read your advice." (observation transcript: 4-30)
As far as this task was concerned, then, the children were required to assess their own work by using their own criteria, and generate advice based on their empirical experiences with the play and address their advice to knowable fellow students. This task, then, gave the children a real audience to address using experiential knowledge everybody in the class had already acquired.

Analyses of observational data and children’s writing revealed that, in general, the children were able to respond to the prompts and managed to write in an appropriate voice. Children’s sophisticated response to Christine’s prompts could be seen in the following example:

What do you think is a play? Just acting? Wrong!
A play is (overall): composing, revising, assigning parts, writing a playbill, making props, doing jobs, memorizing lines, speaking with expression, projecting voices, costumes, and green room. A little overwhelming? Not if you take it one step at a time...

Our play (Mrs.G’s 1996) was supposed to be the: “Golden Book Awards”. It was somewhat like the Academy Awards, but for book characters. Everyone (in groups of 1, 2, or 3) had to write a “vignette” (a part of a book that the character would be accepting the award for) for that book. In the entire play, there were 14 vignettes and 4 categories.

Really, step one is just writing the play (or in my case, vignette); you will probably be assigned a "piece" of the play to write yourself, or to write with a friend or friends. Secondly, (after you’ve revised and edited the "piece" of the play) you find actors/actresses to fill the parts you need in your "piece". One of the MAJOR parts of creating the play is creating the props and scenery (I think this is the most tedious part of creating a play). Thereafter, it’s
mostly, assigning jobs, memorizing lines, and projecting voices (...that and "green room" which is where the whole cast sits on the stage, with the curtains closed, and calms ourselves before each performance).

Personally, I could have helped more on moving props and scenery, but, overall, I would give myself (on a scale of 1-10) an 8 on the first performance, a 9 1/2 on the second, and a 7 on the third.

One piece of advice I would give future playmakers, is: Be prepared to do things you are not signed up to do...and be attentive at ALL times.

Break a leg!
(“Our Play,” by S14)

**Summary of “Play” project.** As described in the preceding sections, the general objective of the unit was to create an integrating literacy event where children could authentically engage in various literacy acts under the same theme. In proceeding with the theme choice, as happened in the earlier project, the teacher used as a guide the general agreement about the selected themes established in the early-year planning. As the "Play" was later renegotiated and revoted, the unit was still developed based on learners’ input. Given the situation, and considering the fact that the children chose their own specific stories to compose and enact, it seems fair to characterize that children’s interest represented a basis for the enacted curriculum during the conduct of this "Play" project. With these student-generated theme as an umbrella, and individual learners’ self-chosen stories (vignettes), the teacher devised enabling, supporting, and enriching tasks and
infused them in the normal course of drama production. To facilitate individual learners in learning from what they had decided to do, the teacher then provided various supports: making available professionally-prepared videotaped materials relevant to the general theme ("Oscar-Awards" video), creating opportunities for the children to watch and discuss sample productions by other classes ("HISTORY, HERSTORY" and "SHAKESPEARE"), providing direct instructions on general working procedures in a whole-class format, and conducting one-on-one conferences with individual learners to facilitate and augment their learning from composing and enacting their vignettes.

To take the class as a whole, there appeared to be a balance in terms of social organization for children's learning: some tasks were assigned and instruction given individually, some in small groups, and some others were conducted in a whole-class format. At the end of the unit, the teacher engaged learners in doing reflections and self-assessment.

More specifically, as the result of applying analytic procedures outlined earlier related to the "Immigrants All" project, the remainder of this section will summarize the patterns--using the same categories applied to the earlier project unit--which had emerged from multiple sources of data as they related to the research questions.
Question # 1: What teaching-learning patterns are indicative of this particular unit in this project-based literature program?

Observational data on the day-to-day flow of teaching-learning activities during the course of this "Play" project revealed that the conduct of this unit had its linear-progression aspect to it. That is, the project was conducted in several phases:

(1) **Establishing a theme as a commitment.**

With reference to early-year planning, which resulted in "doing a play" as a possible theme to do, children and their teacher renegotiated the theme before the theme was actually taken as the class' agenda.

(2) **Establishing a common knowledge base.**

With the agreed-upon theme established as a commitment for the whole class to work on, the whole class then watched a professionally produced program (i.e., Oscar-Awards video) and two play productions by different classes. Upon watching these three performances, the children and their teacher discussed various aspects of the performance of importance and interest to them. This whole class discussion enabled the class to establish a common knowledge base about various aspects of drama performance and its production.

(3) **Conducting the project.**

With the common knowledge base acquired from the whole class discussion, individually and/or in groups,
children started to reread their favorite books in order to locate interesting parts to be reconstructed as vignettes. As for this class it would be their first time to create vignettes for a play, the teacher directly taught the conventions of vignette writing as a genre. After giving demonstration and guided practice in using the necessary rhetorical devices for the vignette writing, the teacher relinquished her responsibility and left it to the children to independently write vignettes of their own choice. At this stage, then, the teacher served as a facilitator who could provide individual assistance with her counsel and scaffolding in one-on-one conferences.

To ensure that the separate pieces of vignettes and their enactment to cohere as a whole drama production, the teacher helped organize and orchestrate the preparation by devising another set of tasks: composing between-scene speeches, vignette summaries, bios, and playbill. Children were also guided in their rehearsal and were assisted in organizing the scenery they created and the properties needed for their play performance.

(4) Publishing the project

This is the stage where children celebrated the representation of their learning. Here their vignettes
were enacted together as a coherent play performance before the "general" public: fellow students and the school community in general.

(5) Reflecting on learnings, assessing own achievement.
At this stage, children shared their experiences, exchanged personal comments orally and conducted self-assessment in writing.

(6) Processing further for future improvement.
Upon concluding their project, in response to teacher's prompt, children were challenged to go beyond what had been experienced in order to envision ways to produce a similar but better-quality project. The children put their "ideal version" of the play production in the form of advice written to "future playwrights".

In addition, the "Play" project was also characterized by a high degree of learners' contribution in shaping the experienced curriculum (e.g. Harste, 1994). Having their voice heard and acknowledged, in this project, the children took charge in their own learning as evidenced in their self-directed reading and writing. Teacher's assistance was given in an individualized manner as the need arose in the context of one-on-one conferences.
Question # 2: In what ways does the project get negotiated in this curriculum?

Examination of observational data which captured numerous group decision-making events revealed that collective decisions were made in a particular way. In this particular project, generally the needs and/or options were brought to the learners' attention by the teacher. The children then responded either by (1) taking a vote to decide whether or not to take the option; (2) proposing alternative ideas of their own or (3) by indicating agreement to what had been indicated by the teacher without further negotiation. These three different ways of group decision-making were applied by the children in all issues facing them as a collective. In whichever way a project-related decision was made, the decision was, then, made collectively based on the majority voice of the learners.

Question # 3: What is the nature of tasks that children are engaged in within this project?

The analyses of the wide range of tasks engaged in by the children gave insights into cognitive demands of each individual task and the interrelationships across tasks. This internal structure of the tasks and its relationships represented the nature of the tasks in this project.

The major tasks and their relationships could be characterized as the following.
Individually, all of the tasks demanded relatively complex cognitive operations, as they engaged learners in evaluating and organizing contents (e.g., choosing the parts for vignettes; converting a to-be-read story into a to-be-enacted vignette), and presenting messages with a specific purposes to a specific audience (e.g., enacting vignettes).

Individually, all of the tasks required learners to generate "extended discourses" (DeGroff & Leu, 1987), composing messages in the form of coherent written paragraphs (vignette summaries and bios) or scripts (e.g., vignettes), and oral presentations (e.g. between scenes speeches).

Collectively, the tasks were integrated as they added up to the achievement of general objectives of the project unit-- namely, the production and enactment of a coherent play.

Question # 4: What instructional supports does the teacher provide in this project?

The teacher provided a great deal of support to enable, facilitate and enrich children's learning prior, during and after their engagement with their "Play" projects. Using the same procedure applied in the earlier project, analyses of observational data indicated that the types of instructional support received by learners during the conduct of this
particular project could be grouped into three categories: (1) content sources, (2) strategies/procedures, and (3) maintenance/feedback.

Content sources in this particular project took the form of a professionally-prepared exemplar (e.g. Oscar-Awards video), play performances by others (e.g., "HISTORY AND HERSTORY", "SHAKESPEARE"). Strategies or procedures were those explicit, operational action-plans the teacher taught or shared with the learners to help them juggle with their resources in order to learn optimally from the project (e.g., line memorization to help with natural acting). Maintenance and feedback took various forms and occurred on different occasions (e.g., the teacher repeatedly assured learners of the value of the tasks; the teacher challenged learners to come up with better representation of their knowledge).

Question # 5: Within this project unit, what is the nature of children’s learning?

Data from observations indicated that within this particular project, children learned from multiple sources of knowledge through different modes of engagement, and in various social organizations. The sources of knowledge through which children learned included a professionally-prepared product exemplar, and live performances by other students. Learning modes they engaged in while learning from
the projects included observation, reading/writing, enacting stories, and oral presentations and discussions. All of those learning experiences were carried out as individual exploration as well as group work.

Project # 3: Business in America

Because of technical difficulties in using the auditorium for play rehearsal, the play performance had to be postponed until May 8, 1996. This postponement caused the class to have two major projects going on at the same time: "Play" and "Business in America." (observation transcript: 4-12)

While the plan for doing "Business" project had been collectively agreed upon during the early-year whole-class planning in the Fall 1995, on Thursday, April 25, 1996, when children were in the midst of "Play" project, Christine reminded the class of the upcoming "Business" project. Some children appeared surprised by Christine’s reminder.

Five days later, Christine shared with the class how their "Business" project might look. Christine invited children’s ideas about what they wanted to do. Some children proposed the idea of doing "a restaurant", but some other children voiced their objections. Christine proposed a possibility for the class to sell something for breakfast, and the proposal was rejected right away. Eventually, the
class came to an agreement that they make their own products.

With this general consensus, Christine then laid out the requirements for the "Business" project, including:

- You should make your own cookies or products;
- You cannot buy items and resell them to your friends;
- You may not invest more than $5.00 as a start-up cost.

(observation transcript: 4-30)

Explaining the requirements, Christine emphasized to the class that she wanted the children to experience how it feels like to be an entrepreneur. "The whole purpose of the business project is to allow for the types of experience business people generally go through," said Christine (observation transcript: 4-30).

The initial talk was then followed by a real business-related activity in the following week. Today, Christine brought to the classroom multiple copies of Columbus Dispatch, Tuesday 4/30, and directed children’s attention on the "Business" section. Christine then demonstrated to the class how to read "New York Stock Exchange" by walking through the table and explaining how the convention works.

In introducing a new set of skills, then, Christine provided a demonstration, and then engaged children in a guided practice. In this way, Christine could establish "gradual release of responsibility" for children’s learning.
Upon giving children some demonstrations and guided practice in reading the stock tables, Christine then devised a task for the children to work on. Christine spelled out her expectations by specifying what she wanted the children to do in this particular activity. Christine’s verbalized expectations included the following:

- Every student was given a start up capital money of US$500.00 (plus a checkbook)
- Students were to write their checks to Christine, who serves as a stock broker;
- Students were to decide for themselves the type and amount of shares to buy;
- Students were to keep a record of the fluctuation of the share prices they had bought.
- Students’ record of the stock market was to be written in their math journal. (observation transcript:5-1)

Christine devised this activity as a context for children to use their mathematical knowledge of “fractions, decimals, and percentages”, which had been a focus section for math instruction in this class. Observation data indicated that the use of authentic, real-life material (i.e., local newspaper) appeared to be highly engaging for children. The task required the children to read a table and assess the value of stocks and required them to decide on purchasing against the $500.00 start-up money they had. While there might be various idiosyncratic ways of determining stocks to purchase, it was observed that the following steps appeared to be consistently taken by some children: (1) look for a familiar name, (2) see the price
per stock, and (3) figure out how much to invest on each company so that the available money could be spread to several companies (observation transcript: 5-1).

The recording of stock prices was made on a weekly basis, and Christine (and was later followed by some children) provided copies of newspapers for the children to peruse. From one week to another Christine reminded the children to check the stock prices and to update their records in math journal. Children reported and discussed with Christine their observation of stock prices periodically.

On May 13, when highlighting "the plan for today," Christine drew children's attention to the major "Business" project. Christine explained the requirements of the project and laid out what the project would entail in terms of tasks. Christine shared with the class what she had planned.

Christine: I decided to bring ice cream. It's going to be my treat for you. I bought ice cream and toppings. I did this for double reasons...two reasons. One is that... I wanted to show you with your business planning how to do cost per serving. You're going to need to do that before you do business...whatever business you do. So, we're going to need to do that with the ice cream ingredients to see how much your serving of ice cream cost me to serve you.

(S6 jumped in: Oh, cool! Christine: Thanks)

Christine: And I'll also teach you how to figure out cost per serving. And you'll
need to do that this week for your business.
That’s for today, after lunch. And this is Math.
(Pause..., and then went on to highlight the weekly plan)

Christine: This week...
we are going to get started with our business.
To be able to plan a business, this week, we’ll be doing a feasibility study. The first thing you need for your feasibility study...

S19: What is feasibility?

Christine: Feasibility means it’s possible. If something is feasible, it is possible. You can make a profit. You’re going to prove to me... and I’ll not let you do business if you cannot prove to me... You’re under a shadow of doubt that you can make a profit... I don’t want you to go doing business and going bankrupt.
So, I’m going to make sure... You’re going to make sure that you make a profit.
Now that I’ve had businesses that had to plan three things before they found out that they could make a profit. That’s why we do it.
I wouldn’t want you to make things and end up owing money at the end.
I want you to be a good entrepreneur and make a lot of money.

(Some children talked inaudibly)

Christine: Okay, here we go.
First of all, you need to tell me the cost per item. That’s what you need to figure out. That’s number one.

S1: So, what do you do to know the cost per item?

Christine: If you’re making hairbows, you need to find out all the things it takes to make hairbows like ribbon, barretts,
glue... You need to know how much ribbon it takes. Say, you take a yard of ribbon and it costs you eighteen cents; you take hair barrettes and it costs you thirty-five cents; and hot glue and it costs you twenty cents. You estimate them all together. Say, that makes eighty-five cents. I’m going to sell them...and...then...

Talk about Market Survey... That’s the second item

(Recess bell rings.)

Christine: Wait a minute.
Market Survey is... Will your market buy your item at that price you want to sell it? Say you go around and say “Here is a hairball, would you buy it for a dollar? If you brought only a dollar to our market, would you buy this for a dollar?”
If people say, “No, I won’t!” And if more than half of the people say “no”, you’ll have to find something else....

(The class was then dismissed for recess)
(observation transcript:5-13)

Later in the afternoon on the same day, Christine served the ice cream and its toppings to the children. Everything served was brand new, complete with their containers and/or wrappers and price tags. When done, the “party” was followed by whole-class activity of calculating the whole cost and number of servings in order to find out the cost per serving. In this activity Christine serves as a facilitator, guiding the discussion by framing questions. Using transparencies on an overhead projector, Christine made four columns with four headings: “item”, “unit cost”, “servings”, and “cost per serving”. Together in a whole-

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class format, children named and listed components of the item (or ingredients), counted the number of servings, and calculated the cost per serving. Together, the children went through the process of calculating what they had just eaten and found out the cost Christine had paid for every serving they had.

As the above excerpts and narrative records indicated, like in "Immigrants All" and "Play" projects, Christine began this "Business" project by, first of all, alerting children of what they were going to do as a class, and outlining what it would entail in terms of required activities and/or procedures. Christine then provided children with a demonstration of how the targeted learning experience was to be carried out (i.e., "doing cost per serving/item") and followed by guided practice using a common experience (i.e., "ice cream treats"). As this guided activity was embedded in children's experience, it was very likely that the children found the learning meaningful.

**Guest speakers.** To help children better relate to the world of business outside the classroom, Christine made arrangements and invited guest speakers from business sectors to serve as resource persons. The first resource person was Mr. B, from a banking institution in the neighborhood. This resource person talked about stocks, brokership ("brokage") and its license acquisition
procedures, and various types of investment. (observation transcript:5-15).

Two days later, children had the opportunity to learn from an Enterpreneur, Mrs.K., who shared her business experiences by laying out the stages and decision-making processes of how to establish her business and made it survive.

As happened in “Immigrants All” and “Play” projects, before the children actually began attending to the presentation by professional resource persons, Christine reminded the children to take notes on what they were going to hear and see. These two business-related “lectures” were then followed by a follow-up assignments. That is, children were to make sentence strips about the content of the lectures and to write “thank you letters” to each of the guest presenters.

By inviting guest speakers from the world of business to talk with children about the real-world businesses, Christine was able to create a link between what children were doing in the class and what business people do in their daily business lives.

Product Testing. When highlighting the “plan for today” early in the morning of Friday, May 17, 1996, Christine told children that they were going to serve as scientists doing “product testing.” For this purpose, Christine brought into
the classroom a bag of "Saltine Crackers", which she then distributed to children to taste.

Using "Saltine Crackers" as an example, Christine then engaged children in a whole-class discussion on the important qualities that a good cracker should have. Christine did this activity by, first of all, writing on the board a column, and then invited children's opinions on what qualities they thought the crackers should have. Qualities which children proposed included: "crunchiness," "flavors," "taste," and "looks". In encouraging children to come up with more categories, Christine continually posed the question "What other senses are important?"

After providing the children with a common knowledge base of what "product testing" means, demonstrating how the procedure worked and engaging children in a guided practice doing the work, Christine then assigned children to do the product testing for themselves, using a set of food products from different brand, which they had brought from home. Orally, Christine explained to the class how she wanted the testing to be conducted. The procedures included the following:

- in a small group, students were to develop a grid: qualities to be assessed; name of testers; and new labels for the products to be contrasted (e.g., A & B);

- students were supposed to hide the original labels of the products by relabeling them as A and B-- to avoid interference of the knowledge of the name of the products.
students were to check with Christine as to
how to proceed with the survey before they
actually did it with testers.
(observation transcript: 5-17)

"Product testing", as it was assigned to the children
in this class, required children to, first of all, taste the
same food from two different makers, and compare the taste.
In order to be able to compare the taste, they needed to
concentrate on their senses. Second, the task required
children to generate verbal labels for the qualities of the
products to be contrasted. In order to be able to create
reasonably accurate verbal renditions (or categories) of
the product qualities, children needed to engage in abstract
thinking so that they could formulate the felt-qualities
into a precise word. Third, the task required children to
design a grid and record their survey data. Fourth, it
required children to convert their numerical data into a
verbal, written report.

To illustrate the variety of categories of product
qualities the children had created, some example are
presented below.

(S14 & S16 were working on "product testing",
trying to research testers' evaluation of two
different brands of apple sauce. They used
labels "Name Brand" versus "Store Brand",
which were later changed into "A" and "B" to
comply with Christine's directive)
These two boys had been negotiating the
essential qualities of apple sauce and then
agreed to use the following words:
"cinnamoniness", "squiziness", and
"juiciness". They then created a grid with
following headings: "brand",

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"ciannamoniness", "squiziness", "juiciness", and "total". The "total" column was supposed to be filled by the number ("rate") given by testers on the scale 1 to 10. 
(observation transcript:5-17)

The excerpt indicated that the task which Christine had devised provided an authentic context which required children to negotiate with their group members and came up with highly creative use of labels to categorize qualities of the product they worked with. This unique experience of survey was later written up in the form of a report. (One representative example of "product testing" report is presented in Figure 4:2)

While all of these activities were going on, in their own way, the children negotiated among themselves and established business partnerships for the "Business" project. At this point, it was observed, there were eleven business groups in the class.

**Feasibility study.** As Christine explained to the class, feasibility study was conducted before doing business to ensure children to "make a profit" in their business. This feasibility study consisted of three major tasks: cost per item, market survey, and findings. Based on transcripts of videotaped observations, audiotaped interviews with children and children's artifacts, this section will discuss the three subtasks.
Cost per item. In order to calculate cost per item or serving, children needed to calculate the whole production cost divided by the number of items/servings they wanted to sell. This cognitive process required children to figure out what they would need in order to make the product and how much it would cost them as whole. From here, then, children could determine the size of servings and found out how many servings/items they wanted to sell. Only after knowing the whole expenses and the precise number of servings/items was it possible for them to figure out the cost per serving.

This mathematic task, then, required at least three steps of arithmetic operations, which can be characterized as “procedurally complex.”

Market survey. With some information on “production cost” per serving/item, children designed a grid and conducted a survey by asking at least twenty-five potential customers as demanded by requirements of the assignment. This subtask, then, required children to explain their product to the potential buyers and inquired how much they would be willing to pay for one item/serving.

Based on data from observations and children interviews, it appeared that none of the children had any unsurmountable problems with the conduct of the survey. In fact, some children said that doing market survey was easy. For instance, when asked to share what he did in the survey,
S14 said, "Well, it's just asking around prices. It's easy"
(interview transcript: RES/WM: 4-30)

**Findings: Report write-up.** The information resulting from survey, which was mostly in the form of numbers, constituted raw data on the basis of which children were to derive their survey findings. The findings were then written up in the form of a report.

Analyses of children's overall written reports clearly indicated that they had learned to write in this new genre of data-base report writing. In terms of content, for example, all children's reports contained what was required: cost per item/serving and findings of market survey. (An example of a complete report is presented as Figure 4:3). Children also learned how to make a decision based on their survey data. For example, in using the data from survey to determine the price per item/ or serving, the children used the "voice of majority" as the basis, regardless of the nominal value the potential buyers said they would buy for.

Rhetorical analyses of their reports indicated that the children understood what function the report should serve (i.e., to "prove" to Christine and themselves that the business will generate a profit) and they knew how to frame their ideas to achieve the intended goal. This was evidenced in the following example:
Strawberry Smackers: Findings

When we did a survey at recess [by asking “How much would you buy a Strawberry Smacker for?”], we found out that 41 people said that they would pay 65 cents for a Strawberry Smacker. Six people said they would pay 70 cents... Five people said they would pay 75 cents..., and 13 people said they would pay another price. So we decided to sell the Strawberry Smackers for 65 cents, because most of the people said they would pay 65 cents. [By selling it at that price] we will make a 34 cent profit for 1 serving.

 feasability study report by S20, S22 & S25)

Given all what has been outlined above, it seems fair to conclude that the tasks Christine had devised and instructional support she had provided had served their purposes.

Upon reviewing children’s written report, Christine explicitly expressed her feelings about what the children had done. Explicitly Christine said to the whole class that she was “pleased with the result of your [children] feasibility study” (observation transcript:5-23).

In the early phase of this “Business” project, Christine stipulated the maximum start-up money from each child was $5.00. This requirement posed a problem to children whose anticipated “production cost” exceeded the allowable start-up capital. Christine took this real, situated problem as an opportunity to augment children’s learning. Christine did it by, first of all, requiring children to record their “financial planning” in their
homework log. Christine then explained to the class that if they decided to borrow money, then they were required to write a contract and incorporate the interest in their financial plan (observation transcript:5-23). At another time, in response to a question proposed by S6, Christine explained that the financial plan “should talk about ...here the initial costs are; and here is the way we’re going to finance our business.” (observation transcript:5-28)

This task appeared not only to generate an opportunity for children to learn-- in a contextualized manner-- a new concept of “loan contract” but the task also required some groups of children to discuss their financial situation more closely. What follows is an example of children’s discussion which resulted directly from Christine’s task design.

S20, S22, & S25 were trying to find out how much money they would need to purchase ingredients they needed for their business. They envisioned producing 75 servings of “fruit punch" to be sold each day for three days. They had $15.00 (their own money) as a start-up.

S20: Aaaaach... Forty (dollars) forty cents!

S22: No way!

S20: No, we just need ten dollars more!

S22: No, we don’t-- twenty five !

S20: No, ten dollars more. Each brought five dollars from our parents. Fifteen dollars start-up. That’s thirty. Ten dollars more!

S25: How can we get THAT?!
S22: That's a lot of money to borrow.

S20: Each can borrow five dollars from my parent. That's fifteen dollars.

S25: Okey, thirty and then we need to borrow like five MORE.

(observation transcript: 5-24)

The group then consulted with Christine about the issue. Christine reminded the group that if they figured it out that their business was feasible, then they knew how much to make the products for one selling day and they could buy the ingredient for the following day out of their profit.

With their refined understanding which resulted from Christine's scaffolding, the three girls then continued the discussion without Christine's help. When they tried to figure out how much each person needed to borrow from their parents, the children were observed to be engaged in the following exchanges:

S20: Everybody, from your parents you need to bring in eight [dollar] fifty [cents].

S25: Wait, wait. I've got to write it down. I need a pen.

S22: How much?

S25: I need eight fifty from my parent.

(observation transcript: 5-24)

Although Christine had indicated that "Business" project was related more with Math rather than Language Arts
in traditional terms, as the data indicated, children's engagement in this project resulted in a great volume of extended natural text. Seen from another vantage point, it seems fair to say that Christine's task-management approach thus far has successfully created an integrated learning environment for the children.

**Mini Mall: Selling the Products.** The product sale was conducted for three consecutive days during recess time (May 29, 30, 31). On these three days, children were intensely engaged in working on their business: planning, shopping, making products, selling, and counting money.

After the first sale day, Christine initiated a whole class sharing by asking: "What did you learn from yesterday's sale?" (observation transcript: 5-30). Children shared their experiences and comments. After the second sale day, Christine invited children to share their business experience: "Is there something new that you learned from yesterday's business?" (observation transcript: 5-31)

As reflected in the way she managed the "Business" activities, even during these three profit-making days, Christine still focused her attention on learning-related aspects of the business. For example, aside from sharing experiences and selling strategies, Christine devised a task, which she called "Business Math". Using their own
business as a context for children's learning, Christine taught children how to calculate their profit. This activity required the class to learn new concepts such as "total gross profit", and "net profit." Later, as the class agreed to set aside 10% of their profit to charity, children were engaged in categorizing their monies and subtracting 10% of their net profit to give to charity. In the context of this classroom, this activity was fitting and productive because it provided children an authentic learning context which necessitated children to use their recently acquired mathematic skills of doing fractions, decimals, and percentage to get their projects done.

The tasks which Christine had devised, then, resulted in children's "authentic literacy engagement" (e.g., Edelsky, 1991; Kucer, 1991).

**Business Sharing & Reflection.** As happened in "Immigrants All" and "Play" projects, Christine devised tasks for children to engage in sharing their experiences and doing self-assessment. Beginning the session, which she called "Board Meeting", Christine told the class:

Earlier this morning I realized that we don't have time to write the annual business report...
Instead, I'd like you to prepare two-minute presentations to your board of regents of your company because if you have a humongous company you have an annual meeting with your investors. And you would have to report on your company status during its last annum...last year...
(And then Christine went on to specify what she expected children to cover in their report. Christine suggested that children negotiate with their partners and divide the job: who took care of which questions)

(observation transcript: 6-6)

In one-page handouts which Christine prepared and distributed to the class, Christine asked the children to address the following questions:

- Give a brief history of your company
- Did your business succeed as well as you thought it would in your feasibility study? Explain whether there are differences or no differences.
- Did you make a profit? Tell your financial status of your company.
- What problems did you have and how did you solve them?
- What would you do differently if you had a chance?

(observation transcript: 6-6)

This task, then, required children to describe what kind of business they did; to report what they actually made out of their business in comparison with what they had expected based on their feasibility study; to formulate the problems they were faced with, and to figure out ways in order to make a better business next time around. As a whole, the task was cognitively complex as it required children to blend together information from different sources. Specifically, in order to successfully address what was demanded by this task, children needed to produce
extended oral discourse, covering five different-but-related
topics.

Despite the cognitive complexities demanded by the
task, and the children were given only five minutes to
prepare their reports, they were not only able to address
all the issues, but they were also able to propose
sophisticated, logical solutions to their perceived business
problems. The following excerpt demonstrate the
sophistication of their thinking:

Double Decker Dudes: S14 & S16

S16: Double Decker Dudes...On the first day
of business we didn’t do that well. We
only made a little less than ten
dollars. Nine dollars and nine cents to
be exact. The second day we did pretty
well. We sold out. We made around
thirty-one dollars. Thirty-one dollars
and ten cents [to be exact]. And on the
third day, we did better than the first
day but not so good. We made around
fifteen dollars.

S14: And I think one of our main problems
overall we overestimated how many we’re
gonna sell. We thought we’d sell all of
the thirty-five cents [fudges] although
they’re not selling very well, so we had
to lower the prices from thirty-five
cents to twenty cents [by cutting fudges
into smaller pieces].

S16: ....

S14: Again [as I said before] we weren’t
selling a lot of fudge at first. We
[then] tried samples, trying giving up
free samples but we found out that it
cost too much to give up samples and
it wasn’t really bringing in a lot of
customers. So we kind of dropped that
idea. And so we just ended up going
into crisis.
S16: If we had the same thing to do again, we would probably sell a product [which is] more well known.

S14: That’s because, I mean, the fudge is really good as people found out the second day. They tried out the first day and they found out it was good. But it would be easier just to know everybody likes this one thing, and not have to try it. That would probably give a lot more profit.

(translation transcript:6-6)

Summary of "Business in America" project. As described in the preceding sections, the general objective of the unit, as it was explicitly communicated by the teacher to her students, was to provide a context where children could "experience how it feels like to be an entrepreneur"—a real-life type of experience, where children could authentically engage in various literacy acts under the same theme. In proceeding with the theme choice, as also happened in the earlier projects, the teacher used as a guide children's general agreement about the selected themes established in the early-year planning. As this theme came about based on learners' input, and the children chose their own specific type of business to work on, practically children's interest represented a basis for the enacted curriculum during the conduct of this "Business" project. With these student-generated themes as an umbrella, and individual learners' self-chosen product to sell, the teacher devised enabling, supporting, and enriching tasks
and infused them in the normal course of running a profit-making business enterprise. To facilitate individual students in learning from what they had decided to do, the teacher then provided various supports: creating opportunities for the learners to meet and talk with businesspeople (staff from a banking institution, and an Enterpreneur), providing children with guided practice on calculating a cost per serving ("ice cream treat"), demonstrating procedures of doing a product testing ("Saltine crackers"), providing direct instructions on general working procedures in a whole-class format (e.g., "feasibility study"), and conducting one-on-one conferences with individual learners to facilitate and augment learning from doing a business.

To take the class as a whole, there appeared to be a balance in terms of social organization for children’s learning: some tasks were assigned and instruction given individually, some in small groups, and some others were conducted in a whole-class format. At the end of the unit, the teacher engaged learners in doing reflections and self-assessment.

More specifically, the remainder of this section will summarize the patterns which had emerged as a result of applying the same analytical procedures described in the earlier project units. The patterns were presented in their relationship to the research questions.
Question # 1: What teaching-learning patterns are indicative of this particular unit in this project-based literature program?

Observational data on the day-to-day flow of teaching-learning activities during the course of this "Business" project revealed that the conduct of this unit progressed in a linear way. That is, the project was conducted in several phases:

(1) **Establishing a theme as a commitment**.

With reference to early-year planning, children and their teacher renegotiated the theme before the theme was actually taken as the class' agenda.

(2) **Establishing a common knowledge base**.

With the agreed-upon theme established as a commitment for the whole class, the learners were then given the opportunities to learn from Business Professionals (e.g., Entrepreneur & Bank staff). The class as a whole also engaged in guided practice doing "product testing" and "cost per serving" led by the teacher. Upon experiencing all of this, the children and their teacher discussed various aspects of doing a profit-making business. This whole class discussion enabled the class to establish a common knowledge base about various aspects of running a business and its potential rewards and risks.
(3) **Conducting the project.**

With the common knowledge base acquired from the whole class discussion, individually and/or in groups, children started to generate ideas and locate possible business-products to create. As for this class it would be their first time to run their own business, the teacher directly taught the procedures of conducting a feasibility study, which involved two other substasks of "cost per serving/item" and "market survey". After giving demonstration and guided practice in doing those necessary enabling skills, the teacher relinquished her responsibility and left it to the children to conduct their own feasibility study for their respective business enterprises. At this stage, then, the teacher served as a facilitator who could provide individual assistance with her counsel and scaffolding in one-on-one conferences,

(4) **Publishing the project**

This is the stage where children celebrated the products of their hard work. As a whole-class activity, the class held a "Mini Mall", where their business products were put on sale before the "general" public: school children and the school community in general.

(5) **Reflecting on learnings, assessing own achievement.**

At this stage, children shared their experiences and self-assessment in the format of oral presentations to
the "Board of Regents," with peers serving as their interested audience.

(6) **Processing further for future improvement.**

In concluding the oral report on their financial status, in response to teacher's prompt, children were challenged to go beyond what had been experienced in order to envision ways to conduct a similar but more profitable business enterprise. Building on what had just been experienced, children formulated their "ideal version" of their business strategies and shared them with their peers.

Additionally, the "Business" project was characterized by a high degree of learners' contribution in deciding on what to do within the project. This high proportion of student-generated learning agendas enabled children as a collective to engage in self-directed literacy activities. Teacher's intervention occurred mostly in the context of one-on-one conferences as the need arose.

**Question # 2: In what ways does the project get negotiated in this curriculum?**

Examination of observational data which captured numerous group decision-making events revealed that collective decisions were determined in a particular way. Generally, in this particular project, the needs and/or
options were brought to the learners’ attention by the teacher. The children then responded either by (1) taking a vote to decide whether or not to take the option; (2) proposing alternative ideas of their own or (3) by indicating agreement to what had been indicated by the teacher without further negotiation. These three different ways of group decision-making were applied by the children in all issues facing them as a collective. In whichever way a project-related decision was made, then, the decision was taken based on the majority voice of the learners.

**Question # 3: What is the nature of tasks that children are engaged in within this project?**

The analyses of the wide range of tasks engaged by the children gave insights into cognitive demands of each individual task and the interrelationships across tasks. This internal structure of the tasks and its relationships represented the nature of the tasks in this project.

The major tasks and their relationships could be characterized as the following.

- Individually, all of the tasks demanded relatively complex cognitive operations, as they engaged learners in evaluating and organizing contents (e.g., "product testing", "market survey"), and presenting messages with a specific purposes to a specific audience (e.g., Feasibility study report).
Individually, all of the tasks necessitated learners to generate "extended discourses" (DeGroff & Leu, 1987), composing messages in the form of coherent written paragraphs (e.g., "product testing" and "feasibility study report"), and oral presentations (e.g. "Board Meeting").

Collectively, the tasks were integrated as they added up to the achievement of general objectives of the project unit—namely, experiencing "entrepreneurship" from designing business products, surveying potential buyers, to conducting a mini market.

Question #4: What instructional supports does the teacher provide in this project?

The teacher provided a great deal of support to enable, facilitate and enrich children's learning prior, during and after their engagement with their business projects. Analysis of observational data indicated that the types of instructional support received by learners during the conduct of this particular project could be grouped into three broad categories: (1) content sources, (2) strategies/procedures, and (3) maintenance/feedback.

Content sources in this particular project took the form of professional resource persons from business circles (e.g. Entrepreneur and Bank staff). Strategies or procedures were those explicit, operational action-plans the teacher
taught or shared with the learners to help them juggle with their resources in order to learn optimally from the project (e.g., product testing, feasibility study). Maintenance and feedback took various forms and occurred on different occasions (e.g., the teacher repeatedly assured learners of the value of the tasks; the teacher suggested some measures to take to maximize profits, etc.).

Question # 5: Within this project unit, what is the nature of children’s learning?

Data from observations indicated that within this particular project, children learned from multiple sources of knowledge through different modes of engagement, and in various social organizations. The sources of knowledge through which children learned included direct informational sharing with business professionals, and direct experience (e.g., ice-cream treats, product testing). The learning modes they engaged in while learning from the projects included listening to lectures by business professionals, conducting market survey, writing, and oral presentations. All of those learning experiences were carried out as individual exploration as well as group work.

Project # 4: Major Events in American History

The idea of researching main events in American history was communicated to the class in the second week of April
1996, when the children were in the middle of “Play” and were in preparation for “Business” projects. One week later, Christine initiated a brief whole-class session, in which she asked the class: “For our history project, what topics would you like to study?” (observation transcript:4-22). Christine then wrote down the topics proposed by the children.

With these self-selected topics, children then independently searched for resources they might need in the school library across the hall in the same building and/or elsewhere. The children appeared to be expected to find their own way in securing the resources they might need for the project, as at this point two other major projects were in progress and occupied their days in school.

As also was the case in the "Immigrants All", "Play", and "Business" projects, Christine gave a signal to the children, one week or so in advance, about the plan for the forthcoming project. In this way, ahead of time, as a class, children were informed of what kind of activities they were going to engaged in and they could, therefore, anticipate what kind of learning experiences they were going to have. This sense of direction was important if children were expected to be proactive and self-directed in their learning.

Two weeks later, on Monday (5/6), Christine put the “Great Events in American History” on the weekly schedule.
Christine reminded the class that the "research notes are due next Friday." (observation transcript: 5-6) Christine then explained to the class the expectations and the direction of the project: "Everybody is expected to produce a text, approximately 2 pages in length. The texts written by everyone in the class will be put together as a book." (observation transcript: 5-6)

At this stage, then, the instructional support which Christine had provided took many different forms: freedom to work on self-selected topics and to decide to work individually or in partnership with peers, clear time-frame for the assignment, specification of the requirements, and description of the product the research report would take.

In the following pages, brief descriptions will be presented of major subtasks which the children were engaged in when they did "Major Events in American History" project.

**Library Research.** As this research was supposed to be an independent activity, and its timing coincided with two other major projects, children did their search individually in that there were not any scheduled times for the class to get a whole-class session beyond the initial planning on selection of research topics and occasional reminders from Christine. Christine did, however, provide a structure for children's learning. At one point in time, for instance, Christine suggested the children that they might use "Who/
What, Where, Why and How" as a general guide for their search of information.

Christine's reason for providing an "advance organizer" was to help children develop a purpose when reading. In addition to this general learning-strategy, Christine also devised another task, "research notes", which was meant to guide children in learning from textual sources.

**Note taking.** From Christine's perspective, "note taking" in this particular research project represented a very important instructional tool, which could serve two purposes: (a) as differentiated curricula within the classroom, and (b) as a guided discovery. *(Side talk with T:5-14).*

As it was difficult to anticipate the time when children were going to work on their research, and it was, therefore, hard to conduct a direct observation on children's ways of doing note-taking, data on children's ways of making notes were collected by way of informal interviews. What follows is a set of representative examples taken from transcripts of interviews with some focal learners.

BM: Could you share with me how you read the materials for the research you are doing?

S2: You kind of walk through it [book/article] and like if there is like
important heading or something you want, you write down like a lot of the stuff it says in there. Because that will be...maybe that will be one of the big parts of your study so you want to get a lot of notes on it.

BM: How did you write the notes?

S2: I kind of blended information because some books might have more information on like maybe food but others only have like some information that the other books didn’t. So it would be good to look in like different books for this topic because you might find something that the other book didn’t have.

When making notes you’re not just copying down what it [the book] says. You’re kind of having to put it in your own words. You’re trying to figure out what it means. I kind of think of them you’re kind of learning it.

(interview transcripts: RBS/SB: 5-16)

As indicated in the excerpt, children saw doing library research as learning, and in order to learn what was read they figured out what the text meant. At this juncture, when making meaning out of reading, note-taking served a purpose: it helped children personalize the knowledge by way of putting it in their own words. This was exactly the purpose of note taking as an intermediary step to learning, as it was meant by Christine when she said:

I always work from ...I try to have them [children] work from the text into an intermediate sort of ground work where they’re taking notes of some kind. Putting it in their own mind and then putting it in their own words before writing about it.

(interview transcript: 6-19)
Therefore, at this stage, by her task design, Christine had provided an advance organizer to help children develop purposes for their reading and "note-taking", which should help increase their engagement with the texts they read.

With their notes, which were later collected by Christine together with the final report, children were then to compose a one-to-two page report.

**Report writing.** Given a free choice in their writing both in terms of its substantive focus as well as its presentational style, as a collective, children in this class produced one 43-page book containing 24 pieces of writing covering 21 different topics, ranging in length from 1 page to 4 pages. Not only did the children write in diverse topics, they also organized their ideas in different genres. More specifically, five pieces, written all by female students, were presented in the format of a story, and the other twenty pieces were written in a matter-of-fact way.

It was interesting to note that, while one might argue that the use of a story format for research report was an inappropriate choice of organizational pattern, the children in this class chose the approach for a rhetorical reason. For instance, transcripts of informal interviews with two of the writers who had chosen to write in a story format, indicated that the children wrote a story because they
wanted to "put a flare into writing" (S6), or "to make it interesting to the audience" (S19).

Although in terms of idea generation and writing styles children held the whole control, Christine took control over the process quality -- namely, that children had to start from research notes and they had to submit the notes together with the extended research write up. For Christine, this procedural requirement served an important function in her attempt to ensure that children went through the cognitive processes as she intended in the task design.

This quality-control measure was enforced primarily at one-on-one conferences, where Christine would ask the writers to tell what they knew about the topic they were writing about and examined the accuracy of information presented in the report (observation transcripts: 5-30; 6-4)

For Christine, one-on-one conferences were a critical point where she could individualize her instructional support. In fact, analysis of observational transcripts and interviews revealed that Christine's one-on-one conferences with individual learners served several functions. For instance, in the context of "reading conference", which Christine conducted periodically, one-on-one conferences served as a context for Christine to get to know each individual learner in terms of their literacy development and preference. By way of this one-on-one conference
Christine assessed children's comprehension of the books they independently read. Christine did it by asking the children to retell the story and/or explain what was important in the book they read. In addition, this reading conference was also used by Christine to figure out the most suitable book for each learner to read next in order "to take them to a next level of reading" (interview transcript:2-14) and "to ensure that they experience reading all genres" (interview transcript:6-19).

In the context of children's writing, Christine used this one-on-one conference as a contextually appropriate way to check children's current understanding about the topics they were writing, to check adequacy of their processing (or working procedures they used) and to nudge the children to the next level of sophistication in various aspects of their writing. To illustrate the way Christine conducted individual writing-conferences, one representative example (i.e., conference with an average learner) is presented below.

Thursday, 5/30/96
It's 9:25 AM. S22 was conferencing with Christine on "The Great Depression".
Christine asked S22 to read her draft.
Christine spotted some problems: intonations in reading and some misspelled words.

....
(interruptions from children who needed Christine's help)
Fragment#1

S22 (read): PEOPLE WERE (written "where") RUNNING OUT OF MONEY TO PAY DEBTS.

Christine: Okey. PEOPLE WERE RUNNING OUT OF MONEY. That’s correct. That’s correct. And THEY... That’s THE (pointing at a misspelled word)

S22 (corrected the misspelled word, then read): A CHAIN OF BUSINESSES (written "business") SHUTTING (written "shouting") DOWN.

Christine: How do you spell businesses?

S22: B-U-S-I-N-E-S-S-E-S

Christine: Right, right. Very good.

S22 (corrected spelling and resumed reading): BUSINESSES SHUTTING (written "shouting") DOWN.

Christine: That says shouting down.

S22: Ohh...ehm... (giggle)

Christine: Take a letter out of there to make it say shutting.

S22: (letter) U?

Christine: No, no, no...

S22: O?

Christine: Yes. Now you need to put another letter in because it now says shutting. How do you make that... short /u/ instead of a long one?

S22: Ohh...ehm...

Christine: Think about "hoping" and "hopping". What’s the difference between "hoping" and "hopping"? How do you signal that?

S22: (long pause)
Christine: How do you spell "hoping"?
S22: H-O-P-I-N-G
Christine: So, the difference between "hoping" and "hopping" is...
S22: "Hopping" has two /pees/ [ps]
Christine: Two p's. So, how do you make that say "shutting" rather than "shuting"?
S22: Two t's
Christine: Right. Two t's.
(observation transcript:5-30)

In this excerpt (segment#1), Christine used the conference to provide direct instruction on spelling, using misspelled words produced by the learner in the context of her own writing. In this way, Christine embedded her teaching in the context of actual text production. This excerpt also indicated Christine's attempt to get across to the learner the patterned-nature of English spelling, as reflected in phoneme-grapheme mapping and the use of contrast between "hoping" and "hopping"-- which was familiar to the learner-- to lead her to figure out how to spell shutting as opposed to "shuting".

As indicated in the excerpt, Christine also indicated to the writer that the accuracy of the information in writing was important, as reflected in Christine's comment: "That's correct. That's correct."

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**segment#2**

S22 (read): TO PAY DEBTS (written "dets")
PEOPLE WITHDREW THEIR MONEY FROM THE
BANKS AND MANY BANKS HAD TO SHUT DOWN.

Christine: How do you spell debts? There is a
silent letter in there.

S22: B

Christine: Yes.

(interruptions from some children who
needed Christine’s help)

Christine (read): TO PAY DEBTS... what is
that, MMMMM (S22)?

S22: Money that we borrow and we need to pay
it back.

Christine: Okay. (continue reading) TO PAY
DEBTS, PEOPLE WITHDREW MONEY... That’s
an introductory phrase in there. Could
you put a comma in there?

S22: (looked uncertain)

Christine: Okay, read it to me and listen to
where your voice goes down.

S22 (read): TO PAY DEBTS PEOPLE WITHDREW
THEIR MONEY FROM THE BANKS...

Christine: Could you hear that?
TO PAY DEBTS... PEOPLE... the voice went
right back up to the top.
TO PAY DEBTS...PEOPLE...

S22: Put a comma after DEBTS?

Christine: Yeah... TO PAY DEBTS comma
PEOPLE....
(observation transcript:5-30)

In this excerpt (*segment#2*), Christine attempted
to bring to the learner’s conscious attention the

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notion of "introductory phrase" which this particular learner used repeatedly in her writing. Christine attempted to make explicit to the learning writer the convention governing the use of an introductory phrase; that is, the use of a comma following the phrase. As the excerpt indicated, S22-- who was an average student in this class-- could pick up the directly-taught convention relatively fast. Again, in her attempt to get across to the learner the notion of an introductory phrase, Christine used oral language as a basis: "Can you hear that?...The voice went right back up to the top."

What Christine did here, then, was to bring to a conscious level what the learner had tacitly learned and used, which Halliday (1975) called "knowledge-consolidation". By assisting children in such a process Christine was able to help add to the learners' repertoire of written-text conventions a piece of knowledge, which should be useful for participation in a wider literate society.

Segment#3

S22 (read): BY THE EARLY 1930's, 12 MILLION PEOPLE, 25 PERCENT OF WORKFORCE, WERE (written "where") UNEMPLOYED.

Christine: Wow...You need some punctuations in there.

S22 (reread): BY THE EARLY 1930's...
Christine: Do you know this 30s with that/s/... What do you need right before the s?
You'd better remember the name of it [as it was a focus of the class's discussion last week].
It's an... an...

S22: An apostrophe.

Christine: Alright!

S22 (went on to read): 12 MILLION PEOPLE, 25 PERCENT OF THE WORKFORCE, WERE (written "where") UNEMPLOYED.

Christine: Did you see this "25 PERCENT"? This is an appositive. Or you can put it in a parenthesis. I would recommend ...since you've got already had a comma there with your introductory phrase, you put that in parenthesis..."25 PERCENT OF THE WORKFORCE"

S22 (wrote " "): Like that?

Christine: No, that is a quotation mark. Like this [Christine wrote (...)]

S22: Ohh... like that? (incorporated a parenthesis in her text)

((interruptions. some children asked about stock)) (observation transcript:5-30)

This excerpt showed how Christine took advantage of the "clarity problem" found in the learner's writing by proposing an alternative way of conveying the same message. Christine's proposal for using a parenthesis in the place of an appositive-- which could increase clarity of the sentence by reducing two commas in the sentence-- might "take the child to next level" of sophistication in her writing. This expectation was
reasonable because the "direct instruction", which was embedded in the contextual need of the writer, was timely and functional.

Segment#4

S22 (read): ...FARMERS HAD TO BULLDOZE THEIR (written "there") FARMLAND, AND THEY BECAME ALL ONE BIG DESERT.

Christine: That's not true. Where did you get that information?

S22: In the ...uhh... There is a book that I got the information from...[pause]

Christine: Do you still have it now?

S22 (left Christine's desk to check, but S22 couldn't find the source text)

Christine (talked to herself, as S22 was moving a way from Christine's desk): WE ALL BECAME ONE BIG DESERT... That's very scary.

Christine (to S22): That's not true. In several states like Oklahoma and Nebraska. In some Western States...Some Western States had a drought... And it became like that...but not all of the U.S. That was a big thing... We call it "Dust Bowl" That's a very important part of our history. I'm glad that you included it in there, but you can't say all of us had a drought.

Christine (went on to read the edited version of S22's text): IN THE EARLY 1930's, PART OF THE WESTERN UNITED STATES... (interruptions from some children)

Okay, PART OF THE WESTERN UNITED STATES STARTED TO HAVE A DROUGHT AND FARMERS HAD TO BULLDOZE THEIR FARMLAND.
S22 (saw her text, matching it with Christine's pronunciation)

Christine: Do you want to say that this was known as the "Dust Bowl"?

S22: What was it called?

Christine: "Dust Bowl." And put in a quotation.

S22 (wrote): THIS WAS KNOWN AS THE "DUST BOWL."

This excerpt (segment #4) clearly indicated Christine's solid understanding about the topic the learner wrote. Christine confronted inaccurate information presented in the text. In this learning context, what Christine did was very important for children's learning for at least two reasons. First, Christine had shown to S22 that printed text was not an infallible source of knowledge as it could contain inaccurate information. Timely, direct demonstration of critical stance such as this one could encourage learning writers to evaluate their sources when they did reading-to-write from different sources. By doing this, then, Christine managed to model for the children in taking into consideration the "truth value" of what they read and heard being said by some sources--an essential stance to reading and writing expository texts (Langer, 1990; Olson, 1988).
A second reason was related to consolidation of genre knowledge. Since children had learned, albeit perhaps tacitly, about the differential functions of written texts as a means of purposeful communication from their repeated participation in literacy events occurring in their social environment (e.g., Hicks, 1990; Pappas, 1991), the kind of conscious treatment of truth value which Christine had demonstrated might help consolidate children’s knowledge about factual-writing as a genre (Martin, 1989).

Given what had been shown in the four segments of one-on-one writing conferences outlined above, where Christine handled various types of "instructional points" in one sitting, it was clear that one-on-one conferences represented a major part of Christine’s instructional support to individual learners in this class.

Summary of "Major Events in American History" project. Unlike the other three projects discussed earlier, this "Major Events in American History" project appeared to be targeted toward academic-content learning, which was presumably a familiar academic task, as it was reflected in the way the assignment was handled: individual and/or group work without whole-class planning specifically made beyond the one at the
topic selection stage. The teacher used as a guide the
general agreement about the selected themes established
in the early-year planning. As this theme came about
based on learners' input, and the children chose their
own specific topic to work on, practically children's
interest represented a basis for the enacted curriculum
during the conduct of this "Major Events..." project.
With this socially constructed theme as an umbrella,
and individual learners' self-chosen topic to research
and write about, the teacher devised enabling,
supporting, and enriching tasks in the course of the
research project. To facilitate individual learners in
learning from what they had decided to do, the teacher
then provided various supports: creating opportunities
for the learners to explore ideas by giving them ample
time, providing children with an explicit description
of the expected endproducts (i.e., one to two page
essay to be compiled together as a book), and
conducting one-on-one conferences with a comprehensive
focus to take care both content accuracy and procedural
adequacy, and other aspects of text production.

To take the class as a whole, there appeared to be
a balance in terms of social organization for
children's learning: some children worked individually,
and some others who worked on related topics were
encouraged to share their sources together in small
groups. At the end of the unit, children's finished essays and their notes were collected by the teacher. The children's individual and collaborative essays were then compiled as a book. Unlike the other three earlier projects, this particular project ended as the essays were compiled and distributed by the teacher to every student. No follow-up whole class discussion was made.

More specifically, the remainder of this section will summarize the patterns which had emerged from multiple sources of data as they related to the research questions.

**Question #1: What teaching-learning patterns are indicative of this particular unit in this project-based literature program?**

Observational data on the day-to-day flow of teaching-learning activities during the course of this "Major Events..." project revealed that the conduct of this unit had a linear-progression aspect to it. That is, the project was conducted in several phases:

1. **Establishing a theme as a commitment.**

   With reference to earlier planning, children and their teacher renegotiated the theme before the theme was actually taken as the class' agenda.
(2) **Establishing a common knowledge base.**

With the agreed-upon theme established as a commitment for the whole class, the learners were then given the opportunity to go together to the library to locate possible sources. The class as a whole were given general directions: that they might consider using "what/who, when, why" as a general frame to guide their search of information; that they should write research notes before writing research report; that the report would be about one to two pages in length; that the individual reports would be compiled together as one volume. This whole class session should enable the class to establish a common knowledge base about the required research procedures and about the endproduct of their report as a whole.

(3) **Conducting the project.**

With the common knowledge based acquired from the whole class discussion, individually and/or in groups, children started to do information search, note making, idea development and organization and report writing. As this was a familiar form of academic task, the children were expected to do the research independently. The teacher, however, needed to make sure that they not only composed a text but did it "correctly". To help realize this
objective, the teacher provided an intensive and extensive one-on-one conferences with every student.

(4) Publishing the project
This is the stage where children submitted their "polished" reports and their research notes to the teacher. The teacher then created a cover page and compiled the reports together to be distributed to every student as a single book volume.

In addition, the "Major Events..." project was characterized by a high degree of learners' contribution in shaping the experienced curriculum (e.g. Harste, 1994). Guided by their own learning agendas, as a collective, children engaged in self-directed literacy activities most of the time during their history research. Teacher's intervention occurred mostly as the need arose in the context of one-on-one conferences.

**Question # 2: In what ways does the project get negotiated in this curriculum?**

Examination of observational data which captured numerous group decision-making events revealed that, unlike the other three earlier projects which involved numerous instances of collective decision-making, this
"Major Events..." project involved only one-- namely, that learners chose their own topic to research and write about.

**Question #3: What is the nature of tasks that children are engaged in within this project?**

The analyses of the wide range of tasks engaged by the children gave insights into cognitive demands of each individual task and their interrelationships. This internal structure of the tasks and the relationship across the tasks represents the nature of the tasks in this project.

The major tasks and their relationships could be characterized as the following.

1> Individually, the task of "making research notes", "timeline" and "report writing" demanded relatively complex cognitive operations, as they engaged learners in evaluating and organizing contents.

2> Individually, the tasks necessitated learners to generate "extended discourses" (DeGroff & Leu, 1987), composing messages in the form of coherent written paragraphs (e.g., "research notes" and "research report").

3> Collectively, the tasks were integrated as they added up to the achievement of general objectives of the project unit-- namely, learning to write
from source texts, which resulted in an extended written report.

**Question # 4: What instructional supports does the teacher provide in this project?**

The teacher provided a great deal of supports to enable, facilitate and enrich children’s learning prior, during and after their engagement with their business projects. Analyses of observational data, by applying the same procedures in use for this particular question in the earlier projects, indicated that the types of instructional supports received by learners during the conduct of this particular project could be grouped into three categories: (1) content sources, (2) strategies/procedures, and (3) maintenance/feedback.

Content sources in this particular project took the form of professionally prepared source texts, audiovisual materials and videotaped presentations available from the school library. Strategies or procedures were those explicit, operational action-plans the teacher taught or shared with the learners to help them juggle with their resources in order to learn optimally from the project (e.g., research "directions" and requirements). Maintenance and feedback took many different forms and occurred at different times during one-on-one conferences.
Question # 5: Within this project unit, what is the nature of children's learning?

Data from observations indicated that within this particular project, children learned from multiple sources of knowledge through different modes of engagement, and in various social organizations. The sources of knowledge through which children learned included printed materials (library books and encyclopedias) and audiovisual presentations (e.g., videotapes). Learning modes they engaged in while learning from this reading-to-write project included extracting and organizing information from different textual sources, and extracting and reconstructing information from audiovisual presentation. All of those learning experiences were carried out as an individual exploration as well as a small group work.

Summary of Chapter Four

This chapter has discussed results of the analyses of literacy tasks and instructional support as they occurred in the context of instructional and learning conversations (Roehler et al., 1996). From these ecologically valid (Doyle, 1983) analyses, some emerging patterns were identified and described.
Additionally, an extended summary of each project unit was also presented. In this summary, references were made to research questions guiding the inquiry. In a sense, then, the summary represents a set of findings from each project unit.
Figure 4.1: Big web for "Immigrants All" project
Raisin Product Testing

We tested six people to see if they preferred the Food Club brand of raisins compared to the Sun Maid raisin brand. We choose five different categories, smell, moistness, sweetness, softness and overall taste.

The first person we tested was Jesse Allen. She thought that the Sun Maid raisin were better in smell but the Food Club raisin were better in all the other categories.

The next person was Emily Fankhauser. She thought that the Sun Maid raisins were better in all the categories except for softness where she thought that the Food Club raisins were better.

The third person we tested was Robbie Sturges. He thought that Sun Maid was moister and sweeter than Food Club, but he liked Food Club the best.

Kristen Tomblin liked Food Club the best in everything.

Mr Musthafa liked Sun Maid the best in everything.

And the winner is...drum roll please...FOOD CLUB!!!

THE CHEAPER KIND WINS! UNBELIEVABLE!!

Figure 4.2: Product testing report

students' work sample

192
Shake Shack

1. Kroger's whole milk, 1 gallon, servings 16, $1.99.
2. Old Fashioned Chocolate and Vanilla Ice cream, 1 gallon, servings 64, $4.29.
3. Jack Frost cups, 6 oz. cups, 18 cups, .89.
4. Kroger straws, 40 straws, 2 for $1.

\[
\begin{align*}
\text{Price divided by servings} & \quad \text{Result} \\
\text{$1.99$ divided by $16$} & \quad .12 \\
\text{$4.29$ divided by $64$} & \quad .07 \\
\text{.89 divided by $18$} & \quad .05 \\
\text{.50 divided by $40$} & \quad .01 \\
\text{$1.19$ divided by $16$} & \quad .07 \\
\end{align*}
\]

Plus rental fee $1.50 per day.

\[
\begin{align*}
\text{Total} & \quad \text{Result} \\
+ & \quad .04 \\
\text{Plus .14 profit.} & \quad .36 \\
+ & \quad .14 \\
\text{Extra .05 for sprinkles} & \quad .50 \\
\end{align*}
\]

We asked 25 people how much they would pay for 1 chocolate or vanilla milkshake. 6 people said they would pay .50, 12 said they would pay .55 and 8 said they would pay 60. Our strategic idea is that if we sell them for a lower price than most people said they would buy them for people will buy more of them moreover, we will earn more profit. We will sell them for .50 with sprinkles for .55.

Figure 4.3: Market survey report

students' work sample
Figure 4.4: Market survey report: Chart

students' work sample
The Double-Decker Dudes (selling fudge)

In our feasibility study, we found that the majority of the people would buy fudge for 35¢. Therefore, we will sell 1 piece or a fudge for 35¢.

We will make 4 pans of fudge, which makes 197 pieces total (48 per pan). Cost per serving is $1.26. Therefore, we will make profit of 18.8¢ per piece.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit cost</th>
<th>Servings</th>
<th>cost or error</th>
</tr>
</thead>
<tbody>
<tr>
<td>eggs</td>
<td>72¢ x 4</td>
<td>48 x 4 = 192</td>
<td>5¢</td>
</tr>
<tr>
<td>flour</td>
<td>19¢ x 4</td>
<td>48 x 4 = 192</td>
<td>2¢</td>
</tr>
<tr>
<td>sugar</td>
<td>1.7¢ x 1</td>
<td>192</td>
<td>2¢</td>
</tr>
<tr>
<td>vanilla</td>
<td>1.8¢ x 4</td>
<td>48 x 4 = 192</td>
<td>2¢</td>
</tr>
<tr>
<td>evaporated milk</td>
<td>.5¢ x 4</td>
<td>55 x 4 = 220</td>
<td>1¢</td>
</tr>
</tbody>
</table>

Total references: $28.03

- $15.00 - cost of labor and equipment
- $5.00 - cost of lease
- $15.00 - cost of charity

Grand total expenses: $43.03

Total income: $60.20

Profit: $17.17

Figure 4.5: Feasibility study report

students' work sample

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CHAPTER 5

RESULTS OF THE ANALYSES OF LITERACY TASKS, INSTRUCTIONAL SUPPORTS, AND CHILDREN’S LEARNING ENGAGEMENT

This chapter represents a second part of the results of the analyses of literacy tasks, instructional support and children’s learning engagement. More specifically, this chapter consists of three sections. The first section deals with results of the analysis of literacy tasks. Drawn from the earlier analyses as an integral part of the progressive disclosure of the project units, this section presents further analyses of literacy tasks across four project units.

The second section discusses results of the analyses of instructional support given in all project units. Based on data gathered from multiple sources and analyzed using the analysis procedures described earlier in the chapter four, emerging categories of instructional support are identified and presented in this section.

The third section presents sketches of literacy engagement of two selected focal learners as they worked on a common self-designed activity: reading-to-write a
brochure. Relevant portions of literacy artifacts are presented to highlight the strategies adopted by each of the two focal learners in working on their respective projects. Summary of Chapter Five is presented at the end of the chapter.

**Literacy Tasks Across Four Project Units**

On the basis of recent theories and research (e.g., Blumenfeld et al., 1987; Brophy & Alleman, 1991; Newmann, 1990a,b; Stevenson, 1990), some heauristics were developed and used to guide data collection and analyses of the major literacy tasks accomplished by students across the project units. The guiding questions included the following:

1. What types of thinking do the activities promote as required in the type of discourse and writing engaged in by students?

2. How generative/accommodative are the tasks in terms of a variety of activity formats and student response modes?

3. How adaptive are the activities to accommodate students' differing abilities and interest?

4. What range can the tasks likely cover in terms of goal accomplishment?

5. How coherent are the tasks in terms of their "wholeness" feature?

Using the questions as a guide and tabulated tasks and their associated cognitive activities (see Figures 5.1.1; 5.1.2; 5.1.3 and 5.1.4) as a database, the analyses of
tasks across the project units were conducted using the following procedures:
(1) the essential characteristics of all major tasks from each project unit were abstracted from the progressive disclosure; (2) these task characteristics--which included "cognitive activity", "subject-matter focus" and "end product"--were then entered into a "grid" (presented in Figure 5.1.5) which specified the types of thinking promoted by the tasks as reflected in oral discourse and written texts the students were required to generate; variety of activities and response modes the tasks provided; adaptability of the tasks to accommodate students' differences in their abilities and preferences; the subject-matter focus; and sense of wholeness; (3) from these tabulated data general patterns of the literacy tasks for each project unit were established; and (4) a comparison and contrast analysis was then made among the tasks across the project units, which resulted in a pattern which represented the "nature of the tasks" for this study.

The results of these second level analyses are presented in the text that follows.

=========
insert Figure 5.1.1.
Major Tasks in "Immigrants All" project about here
=========
<table>
<thead>
<tr>
<th>IMMIGRANTS ALL Task</th>
<th>Cognitive Activity</th>
<th>Subject-matter Focus</th>
<th>End Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country book response</td>
<td>reading informational country books and immigrant story books writing in response to informational &amp; story books</td>
<td>Social studies - Language Arts (LA) integration</td>
<td>written paragraphs</td>
</tr>
<tr>
<td>Library research</td>
<td>reading for information writing notes, creating outlines selecting information with reference to a time-frame</td>
<td>Social studies-history-LA integration</td>
<td>written paragraphs</td>
</tr>
<tr>
<td>Guest Speaker</td>
<td>listening to a lecture taking notes from a lecture selecting notes for a sentence strip</td>
<td>Social studies-LA integration</td>
<td>written notes and sentence strip</td>
</tr>
<tr>
<td>Field trip</td>
<td>listening to a lecture taking notes from lecture observing historical artifacts writing notes from observation</td>
<td>Social studies-history-LA integration</td>
<td>written notes and paragraphs on personal learnings</td>
</tr>
<tr>
<td>Reader's Theater</td>
<td>(re)reading story books selecting stageable, interesting parts of the book negotiating interpretation with peers enacting stories for an audience discussing story interpretation</td>
<td>Social studies-LA integration</td>
<td>mostly oral discourse: presentations and discussions</td>
</tr>
<tr>
<td>Project Presentation</td>
<td>creating written text/audio-visual representation of learning presenting own learning-representation to an audience explaining purposes and/or processes to an audience</td>
<td>Social studies-LA integration</td>
<td>written text/audio-visual representation of learning</td>
</tr>
<tr>
<td>Reflection and Self-assessment</td>
<td>voicing own observation and concerns sharing experiences and exchanging comments evaluating own performance/working strategies</td>
<td>General learning/working strategies</td>
<td>mostly oral discourse</td>
</tr>
</tbody>
</table>
As indicated in the table, the "Immigrants All" project consists of seven major tasks: country book response, library research, guest speaker, field trip, reader's theater, project presentation, and reflection & self-assessment. Each of these literacy tasks required children to engage in various cognitive processing at multiple levels, ranging from comprehending oral and written message to evaluating relative value of information and synthesizing information from different sources. In regard to its subject-matter focus, every major task carries either multiple literacy skills (or "intradisciplinary") or involves different subject matters (or "interdisciplinary"). All of the major tasks require students to engage in extended oral discourse exchanges and/or to produce extended written paragraphs.

Taken together, then, the literacy tasks in "Immigrants All" project require cognitive processing beyond simply recognizing word- or sentence-level meanings and producing discrete sentences. The tasks, in other words, have high cognitive demands and require students to process extended texts by using multiple literacy skills.

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insert Figure 5.1.2: Major Tasks in "Play" project about here
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200
<table>
<thead>
<tr>
<th>PLAY Task</th>
<th>Cognitive Activity</th>
<th>Subject-matter Focus</th>
<th>End Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching others' performance</td>
<td>watching others' performance for ideas sharing personal impressions &amp; learnings constructing collective understanding</td>
<td>Integrated Language Arts (LA) skills</td>
<td>mostly oral discourse</td>
</tr>
<tr>
<td>Group planning</td>
<td>articulating personal proposal/understanding exchanging ideas w/ peers negotiating proposals making collective decisions</td>
<td>Integrated LA skills</td>
<td>mostly oral discourse</td>
</tr>
<tr>
<td>Writing vignettes</td>
<td>(re)reading story books selecting stageable, exciting parts of the books composing play scripts negotiating interpretation &amp; representation w/ coproducers</td>
<td>Reading &amp; writing</td>
<td>written play scripts</td>
</tr>
<tr>
<td>Performing the drama</td>
<td>memorizing lines w/ emotions and paralinguistic expressions coordinating w/ peers for own vignette performance collaborating w/ peers for the whole drama performance</td>
<td>Integrated LA. skills</td>
<td>drama production &amp; performance</td>
</tr>
<tr>
<td>Reflections &amp; Self-Assessment</td>
<td>assessing own performance using multiple parameters envisioning idealized condition &amp; idealized performance composing/recounting own experience articulating idealized criteria for play production</td>
<td>Integrated LA. skills</td>
<td>written paragraphs &amp; oral discourse</td>
</tr>
</tbody>
</table>
As shown in the table, the "Play" project has five major tasks: watching others' performances, group planning, writing vignettes, performing the drama, and reflection & self-assessment. In terms of its cognitive processing, each task requires students to engage in multiple levels of cognitive processes, ranging from observing a phenomenon and comprehending verbally expressed messages to negotiating personal interpretations with peers and evaluating performances of others and their own. In regard to its subject-matter focus, each task requires students to utilize all of the language art skills in an integrated way. All of the tasks encourage the students to engage in exchanges of extended oral discourse and in the production of extended, coherent written texts.

In other words, all of the literacy tasks in this "Play" project involve students in using their integrated language arts skills in order to negotiate their interpretations and collaboratively create a coherent drama production.

--------------------

insert Figure 5.1.3: Major Tasks in "Business in America" project about here

--------------------
<table>
<thead>
<tr>
<th>BUSINESS Task</th>
<th>Cognitive Activity</th>
<th>Subject-matter Focus</th>
<th>End Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guest speakers</td>
<td>listening to lectures</td>
<td>Math-Language Arts (LA) integration</td>
<td>written paragraphs on notes, personal letters, and sentence strips</td>
</tr>
<tr>
<td>Stock market</td>
<td>observing &amp; recording fluctuations of stock prices</td>
<td>Math-LA. integration</td>
<td>written records of personal investment and expenditures</td>
</tr>
<tr>
<td>Product testing</td>
<td>determining essential qualities of products being compared</td>
<td>General research skills &amp; Language Arts skills</td>
<td>written survey reports</td>
</tr>
<tr>
<td>Cost per item (Feasibility Study)</td>
<td>finding an item-price from whole production expenses working with multiple category data</td>
<td>Math-LA. skills integration</td>
<td>written records of calculation</td>
</tr>
<tr>
<td>Market survey (Feasibility Study)</td>
<td>designing a survey grid</td>
<td>Math-LA. skills integration</td>
<td>written records of survey data</td>
</tr>
<tr>
<td>Findings write-up (Feasibility Study)</td>
<td>interpreting data</td>
<td>Math-LA. skills integration</td>
<td>written reports of Feasibility Study</td>
</tr>
<tr>
<td>Selling the products</td>
<td>planning expenses</td>
<td>Math-Business-LA. skills integration</td>
<td>authentic, experience-based knowledge</td>
</tr>
<tr>
<td>Business sharing &amp; reflection (self-assessment)</td>
<td>assessing own business gains against feasibility study articulating business procedures and strategies locating problems and generating solutions reflecting on own experience and envisioning improvement articulating improvement plans</td>
<td>Math-LA. skills integration</td>
<td>oral discourse; authentic, experience-based knowledge</td>
</tr>
</tbody>
</table>
As displayed in the table, the "Business in America" project consists of eight interrelated major tasks: guest speaker, stock market, product testing, cost per item, market survey, findings write-up, selling products, and business sharing and reflection (self-assessment). In terms of their required cognitive processes, the literacy tasks in this particular project involved students in comprehending and producing extended oral and written discourses; observing and recording a phenomenon; designing and conducting a survey study; planning, creating, and conducting a real-life, profit-making business enterprise; deciding on business strategies, applying problem-solving strategies in non-routine experiential contexts. In terms of their subject-matter focus, all of the tasks are interdisciplinary in nature, requiring the students to use integrated literacy skills in service of accomplishing real-life goals. Students' engagement in this authentic activity requires them to construct and deliver purposeful, extended oral presentations and written reports.

insert Figure 5.1.4: Major Tasks in "Major Events in American History" project about here

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MAJOR EVENTS IN
AMERICAN HISTORY
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End Product

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in ten tio n

written paragraphs of
notes

Reteardb noies

writing notes fron wrhton end/or eodfo-viroal eouroee
dustering ieforaiatioa for wrilkg parpoeee
selecting important and relevant infonuatkn

History- study skDI-LA.
intégralion

written
pamgtapbs/oullines

Tmwlioe

identifying important historical events
eeloctlng hnpoitant hietorkml events relevant to own topic
titneting historical events w/m a historical thne bame

Histoiy-LA integration

written timeline or
graphical
représentation

Report wifting

planning eessgts
o r g a n is t idsas from notes
espandiag notas
oowiposing a report

History-LA. integration

written reports
(multiple paragraphs)

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As indicated in the table, the "Major Events in American History" project consists of four interrelated major literacy tasks: library research, research notes, timeline, and report writing. These literacy tasks required students to comprehend textual messages, differentiate important from unimportant information, construct personal understanding and put it in their own words, and organize and expand their thoughts to be presented in the form of a research-based, multiple-paragraph text. In terms of their subject-matter focus, the tasks were interdisciplinary in nature, as they involved history and language arts integration. The tasks required students to generate extended, research-based texts.

The results of the analyses of features of the tasks from the four project units were then entered into the "task grid" (see Figure 5.1.5), which provides a framework to further examine the literacy tasks across project units against the criteria of task demand, variety of activity formats and response modes, adaptability, range of goals coverage, and sense of wholeness.

============================
insert Figure 5.1.5: A task grid:
Literacy tasks across project unit about here
============================

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<table>
<thead>
<tr>
<th>Nature of tasks across project units</th>
<th>Project #1</th>
<th>Project #2</th>
<th>Project #3</th>
<th>Project #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variety of acts, formats &amp; response modes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of thinking promoted: oral discourse &amp; written products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variety of acts, formats &amp; response modes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of thinking promoted: oral discourse &amp; written products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sense of wholeness/unity/closure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of goals accomplishment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability/acceptance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of goals accomplishment</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Adaptability/acceptance</td>
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</tr>
<tr>
<td>Sense of wholeness/unity/closure</td>
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<tr>
<td>Range of goals accomplishment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability/acceptance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sense of wholeness/unity/closure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- Task demand as reflected in oral discourse and written products
- Range of goals accomplishment in terms of subject matter (focus)
- Response to individual learners' ability & interest
- Sense of wholeness/unity
- Range of goals-coverage in terms of subject matter (focus)
This second order analysis resulted in the following findings: that the tasks have high cognitive demand; that the tasks offer various activities and response modes; that the tasks are adaptable to differing levels of sophistication; that the tasks lead to accomplishment of multiple goals; and the tasks are coherent as a whole.

The tasks are high in cognitive demand: all require students to use higher-order thinking

Brophy and Alleman (1991), Newman (1990), and Stevenson (1990) are unanimous in stating that an academic task promotes higher-order thinking when it requires students to manipulate, analyze and interpret information, or apply acquired knowledge and skills to novel problems or new situations. Analyses of all major tasks listed in the table (see Figures 5.1.1 - 5.1.4) indicated that they required the students to engage in higher-order thinking. More specifically, in terms of spoken discourse, for instance, students went beyond recitation at the sentence level to include discussions in which they articulated and explained their understandings (e.g., Reader's Theater presentation; Vignette presentation; Business sharing), and assess the merits of alternative strategic decisions or suggested solutions to problems (e.g., Business sharing). In terms of written discourse, all the writing tasks called for sustained writing to produce paragraphs or essays (e.g.,
Research has established that activities which require higher-order thinking and extended writing responses can foster learning and mastery goal-orientation (e.g., Ames & Archer, 1988; Applebee, 1984; Scardamalia & Bereiter, 1986).

The literacy tasks offer a variety of activities and modes of student learning representations

Results of the analyses of tasks across four major project units indicated that all the major tasks across the project units offered not only various activities but they also lent themselves to differing modes of representations. For instance, all projects required students to engage in reading and writing extended texts (e.g., country book response and report; vignette writing; research report in American history); listening to and participating in extended spoken discourses (e.g., listening to guest speakers’ lectures; vignette presentation; business sharing); and observations (e.g., G.V. field trip; watching play live and taped performances). In addition, the tasks also have led students to use various modes of representation for their learnings (e.g., audio-visual presentations; graphical and pictorial displays; and theatrical presentations); also the tasks have encouraged
students to write in different genres (e.g., stories, play scripts, experience-base report; and library research report).

Research in cognitive psychology suggests that students construct their own knowledge structures, learning strategies and representations of subject matter according to their experience. Tasks which lend themselves to varying activities and idea representations have a better chance of responding to students' individual expectations and preferences. This individually-fit format of activities and response modes can encourage optimal investment from students' part. In addition, given the fact that sharing of insights and comments represents a regular activity in this class, the exposure to multiple forms of activities and knowledge representations can help broaden students' propositional and procedural knowledge (Blumenfeld et al., 1987).

The tasks are adaptable to varying degrees of sophistication to accommodate students' differing abilities and preferences.

Consistent with the teacher's belief about the uniqueness of every individual student, almost all tasks she devised during the conduct of the four major projects were open to "individualization" either in their form or content. Results of the analyses of the literacy tasks across the projects as elaborated in the progressive disclosure

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indicated that students were always given some options to choose from. This learner-sensitive task-assignment strategy does not only fit the teacher’s philosophical stance but it is also promising for encouraging optimal learning because by individualizing the task, the teacher can provide instruction at the edge of individual student’s zone of proximal development (Vygotsky, 1978), as demonstrated earlier in the way one-on-one conferences was carried out by the teacher.

**The tasks lead to accomplishment of multiple goals**

Except for "Major Events in American History", whose objective was "merely" the acquisition of content knowledge in the discipline, all tasks in the other three units had interdisciplinary loads in their content. For example, the majority of tasks in "Immigrants All" project carried integrated contents of social studies, American history and language arts. Similarly, "Play" project served as an integrative literacy event where children, by virtue of the task design, were required to integrate all their language-arts skills. Likewise, "Business in America" project housed an interdisciplanry mission: Math and Language Arts skill development.

Research has long informed us that whether some skills are presented singly or in combination impacts on students' understanding of the relation among those different skills.
(e.g., Brown, Collins, & Duguid, 1989; Duffy, Roehler, & Putnam, 1987). For example, arguing against the treatment of separate bits of topics and activities, a panel of scholars under a collective name of "Cognition and Technology Group at Vanderbilt" (1992) stated that such an isolation can generate "inert knowledge." They then argued for learning in a larger context because it can generate "usable knowledge."

The tasks have coherence

As revealed in the analyses of the progressive disclosure presented in the previous chapter, the teacher was explicit in communicating instructional objectives of the tasks she devised. As also noted in the progressive disclosure, in many cases, she communicated her instructional goals in terms of a range of activities students could and/or should do and their possible representational forms the activities might take. Consistent with this instructional strategy, the analyses of literacy tasks across projects revealed that each cluster of activities added up to one coherent whole, which was marked by the publication and discussion of student learning representations. Except for the "Major events in American history" project, the tasks in the other three projects ended with a culminating activity-- that is where students were given the opportunity "to integrate and apply their
learning and communicate it to others via creation of a major product or performance." (Brophy & Alleman, 1991:21)

This task coherence can give a sense of completion. More importantly, through explicit sharing of insights and comments, students can get some input to enable refinement, consolidation and/or enrichment of their individual learnings.

**Summary of Literacy Tasks Across Projects**

This section presents results of the analyses of literacy tasks across projects. In doing the analyses, explicit reference was made to the heuristics which were specifically developed as an analytic tool for the task analyses in this inquiry. In a sense, then, the emerging patterns which resulted from the analyses represent a set of findings for this section of the inquiry.

**Instructional Supports Provided During the Conduct of All Major Projects**

In this study, the term "instructional support" is defined as an umbrella term to include everything the teacher does to facilitate student learning or accomplishing curricular goals (cf. Brophy & Alleman, 1991). Instructional support, as defined here, includes provision of relevant learning materials, learning arrangements which allow students to learn more effectively and efficiently,

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performance feedback (cf. Thomas, 1993), and selection and use of strategies which help students learn (Duffy & McIntyre, 1982). In sum, then, instructional support includes creation of supportive learning environment (such as seating arrangement, literacy materials), instructional strategies the teacher uses (e.g., Shavelson in Moore, 1979) and scaffolding (e.g., Rogoff, 1990) provided to students to facilitate learning.

Using this broad definition of instructional support as a guide, general observation was carried out of the learning environment, and narrative records were made of all instructional moves (Moore, 1979) made by the teacher before, during, and after the conduct of the four major projects. From the observational data salient features of instructional support were noted as they indicated some facilitating role to students' learning through engagement with their projects. More specifically, the teacher's instructional assistance was analyzed using the following procedures:

(1) Guided by the assumption that every deliberate "move" the teacher made was intended to facilitate and enhance the achievement of instructional goals (i.e., children's learning), detailed records of the teacher's every move were made before, during and after every instructional session;

(2) the narrative records were then read multiple times;

(3) some marginal notations were made to represent the
facilitating roles of the instructional moves in relation to the accomplishment of the larger goals of each project units; (4) notations were then compared and contrasted across the tasks within each project unit as well as across the project units; (5) these comparison and contrast of instructional assistance in each unit and across the four project units resulted in some descriptive categories.

More specifically, the analyses resulted in the following categories of instructional support: "content sources", "learning strategies", and "maintenance and feedback" (see Figure 5.2.1).
INSTRUCTIONAL SUPPORTS

CONTENT
- Sources of General Content Support
  - Books
  - Atlases
  - Encyclopedias

LEARNING STRATEGY
- Sources of Project-Related content support
  - Guest Speakers
  - Product Models
  - Resource Persons
- General, Enabling Learning Strategy
  - Goal Setting
  - Advance Organizer
  - Planning/Outlining

MAINTENANCE & FEEDBACK
- Specific, Project-Related Working Procedure
  - Peer Demo.
  - Adult Demo.
  - Collective Choice
- Maintenance
  - Need Emphasis
  - Value Emphasis
  - Real World Ref.
- Feedback
  - Corrective
  - Acceptance
  - Enhancement

Figure 5.2: Instructional supports across projects
A. General and Specific Content Supports

Content sources are those supports which can served as (re)sources from which student can gain content knowledge in general; these (re)sources could be a "permanent" property of the classroom or those sources which were "made available" to help students acquire content knowledge related to a project theme in general.

Sources of General Content Knowledge. During the conduct of this study, there were at least seven hundred different titles of children trade books and general references. These includes children's literature of different genres, trade books on different topics, dictionaries, atlases and encyclopedias.

Sources of Specific, Project-Related Content Knowledge. Regularly, the teacher invited to the classroom professional guest speakers-- both student parents and outsiders-- to serve as resource persons on the topics the students were studying. For example, for "Immigrants All" project, children in this class got the opportunities to meet with and learned first-hand from an immigrant (FN3-8) and a historian (FN2-26). Likewise, for "Business Project", they got the opportunities to learn from two professional staff from a bank in the neighborhood (FN5-16) and an entrepreneur (FN5-17). For "Play" project, children, as a class, watched
"Video-Oscar", a videotaped TV program that teacher brought to school (FN2-13). Additionally, the students also had the opportunity to watch two play productions by other fifth-graders from a different class (FN4-10), and by middle-school students in a different school (FN4-11).

In addition to these "first-hand" sources, which should offer a common knowledge base for students, number of specific, project-related printed materials were also made available by the teacher to support students' projects. For example, to help children to be time-efficient in exploring sources and finding topics for their country study (i.e., "Immigrants All" project), teacher checked out from public libraries over eighty titles of children books on different countries. Of these library books, 44 titles are informational, 15 fiction and the rest are folktales from different countries.

In summary, in this class, two categories of sources of specific, project-related content knowledge were made available by the teacher: (a) guest speakers and professional authorities, which might serve as a source of first-hand common knowledge base, and (b) a wealth of secondary sources of knowledge in the form of commercially produced printed materials, which afforded the learners a greater room for independent exploration as dictated by their personal interests and/or the topics under study.
B. General Strategies and Specific Procedural Supports

**General, Learning Strategies.** Narrative records of general flow of instructional conversations indicated that the teacher used whole-class sessions to offer potentially useful learning strategies for students to adopt. On numerous occasions, the teacher explicitly encouraged children to acquire information from multiple sources in many different ways. At one time, for example, she mentioned to the class that "U.A. Library" had a good collection of video-cassettes which contain information about different countries on which the children were working, and she encouraged the students to go and see for themselves in the library (e.g., FN2-13). Another time, in response to a group of students' complaint about the scarcity of sources of information on the specific topics they were working on, the teacher brought the group to the "project room" and demonstrated how to access internet to search the information they needed (e.g., FN2-15). Still, on another occasion, responding to some students who found difficulties in finding a focus for their papers, she referred the students to the "big web" of the "Immigrants All" project, which the class as a whole had socially-constructed in the beginning of the project.

In addition to general strategies for acquiring information, the teacher offered also some other forms of
general learning supports such as helping children establish "time management" (e.g., FN2-21; FN4-29; FN5-2; FN5-6; FN5-15; FN5-17; FN5-30), "literate habit" (e.g., FN4-12; FN5-6; FN5-7; FN5-15; FN6-3). To illustrate, what follows are representative examples of statements the teacher made to help encourage children to attend to "time management" (TM) and "literate habit" (LH)

[TM] T reminds Ss that "Play is a top priority this week" (FN4-29)

[TM] "For those who are going to serve as presenters, the top priority for today is preparing the lines they are going to say" (FN4-29)

[LH] T told Ss to write down in their notebook-index the new concepts they have just learned today (FN5-15)

[LH] T commented "Yesterday some people forgot their jobs. For today, I want you to write them down on a note card and stick it in your pocket. So that you can see your order of work from time to time" (FN5-7)

**Specific, Project-Related Working Procedures.** In addition to general learning strategies, the teacher also provided supports in the form of procedural knowledge specifically related to the projects the children were working on. This project-related procedural support took many different forms: demonstrations, explicit "rules" or requirements for the conduct of certain projects, genre conventions, etc. What follows are representative examples:

Teacher said to the class, "By Thursday, I want you to put the experiment in writing by organizing
it like this: materials, procedures, and results and findings" (MINI COSI, FN4-8).

Teacher spells out some “rules” for business project, “You cannot buy items and resell them to your friends. You should make your own cookies or products. You may not invest more than $5.00 as a start-up cost” (FN4-30)

C. Maintenance and Feedback

From observational data which captured every instructional move the teacher made during all instructional sessions with the class as a whole, two other major categories of instructional assistance were identified: maintenance and feedback.

**Teacher’s Maintenance Strategies.** Maintenance strategies are instructional moves or supports which serve to win learners’ attention and sustain learners’ interest in engaging the tasks. In this study, the teacher did it, among others, by emphasizing the value of the activities [Value emphasis/ Value-emp] and making reference to real-life context of reality [Life-ref], as reflected in the following value statements.

[Val-emp] “This writing will help you a lot in preparing for your explanation to your friends about your projects” (FN4-12)

[Life-ref.] Before the class gets started with the “product testing” activity, teacher says to the class “You are going to serve as a scientist today” (FN5-17)
Research (e.g., Marshall, 1987; Newmann, 1988; Stevenson, 1990) has established that students consider valuable and interesting school activities which have real-life utility value.

Use of another set of maintenance strategies were also evident in the data. For instance, to establish a sense of ownership and self-involvement, the teacher gave students options of activities to choose from; and to encourage sense of responsibility in her students for their own learning, the teacher emphasized the invitation. Representative examples for each emphasis:

[Opt-act] "For our history project [Main Events in American History], what topics would you like to study?" (FN4-22)

[Res-Lrn] "There are a couple of ways to do the math problems. Try to make sense of the data that you have, and find your own way to arrive at a solution to the problem" (FN4-12)

In encouraging students to take charge in their own learning, the teacher not only gave students the opportunity to make choices, she also encouraged students to assess their own learning and justify their evaluation:

[Intsb-cri] T invites learners’ ideas to establish inter-subjective criteria for assessing relative quality of the project under study: "What makes an outline good? What makes a representation good?" (FN3-12).

[Res-ass] "Grade your own project and explain why you give the grade you do" (FN3-14)
Feedback. Feedback is defined as comments and/or suggestions which result from an evaluation of a learning condition and/or performance. Feedback could come from various sources (i.e., teacher, an individual student, and peers); it could be addressed to different audiences (e.g., teacher, students, peers) and used for various purposes (e.g., to correct, accept, or enhance performances). Given the focus of this section, attention was paid to feedback which came from the teacher and was addressed to students (both individually and as a class) and their learning engagement and its resultant representations. Using this parameter as a guide, three categories of feedback emerged from observational data: feedback which served as a corrective measure; feedback that functioned as a signal of acceptance; and feedback which was meant to enhance learning to a higher, attainable level. What follows is a representative sample of each category.

[F-Cor] "Everybody, I have to tell you that you didn’t show me your work [mathematical reasoning] last week. You have to do it over." (observation transcript: 4-19)

[F-Acc] Teacher said that she was happy with the results of feasibility studies conducted by students. (observation transcript: 5-28)

[F-Enh] Teacher talked to S11, a potential but resistant writer. "I don’t want to accept this work. I want you to go for a nine, NOT a FOUR, because you have the capability. This writing skill is needed along the way until grade fourteen." (observation transcript: 6-3)
Summary of Instructional Supports

This section has discussed the types of instructional support that the teacher provided to facilitate and enhance students' learning. Using examples from data, the teacher's motivational-management strategies were also described as they related to her attempts to maintain students' motivation and establish sense of responsibility for their own learning.

Sketches of Focal Learners' Engagement with Their Projects

Implicit in Christine's task design, especially those which required children to write from printed sources, was "reading-to-write" (Flower, 1990) or "writing from sources" (McGinley, 1992), where children read source texts, comprehended the message and transformed the information into their own composition. Given the thinking, in order to gain information on children's engagement with their projects, especially those related to reading-to-write activities (e.g., Flower et al., 1990), structural mapping was conducted on some selected children's writing against the source texts they had used. In this way, then, it became possible to make visible the crucial aspects of their composing-from-sources (or reading-to-write).
Using observational data of selected focal learners during "worktime", interviews with them about their work and literacy products, this section will present sketches of literacy engagement of those focal learners. Under each of the focal learners' "code name" their typical ways of working will be described and their representative literacy products analyzed.

As this study was not meant to focus on case studies on each individual focal learner, only selected dimensions of their working strategies will be discussed.

William (S14)

William is a ten years old boy. William was often treated by his peers as an expert in many different ways. When asked by his peers about some questions-- on project related issues or otherwise-- he would readily respond to the questions kindly, without indicating feeling of superiority. When in doubt, he would say so, and, often times, went to the source available in the classroom. For example, at one point, S6 was involved in a discussion with S11 about the issue of "animal killing". Presumably feeling unsettled, S6 then approached S14 and asked his opinion about "killing animals." William replied by saying that "It's okay when you do it for a survival reason. Like in a life-or-death situation." (observation transcript:2-21) At another time, when working with S12, and this boy asked what
"frolicking" meant, William responded promptly, "It means 'playing around childishly'." (observation transcript: 5-7)

William was not only well read, he was also curious. For instance, when in a whole-class discussion Christine mentioned, in an uncertain tone, the term "rhombuses" as a plural form of "rhombus"-- which was a concept under discussion that day, he quietly took initiative to consult a dictionary. "Aha! here it is. /rhumbus/, /rhumbuses/ or /rhumbai/", he said to himself, and then he reported his "findings" to Christine (observation transcript: 4-12).

William seemed to always have personalized learning agendas in mind. This made him on task almost all the time: he quietly and systematically worked on tasks he had planned, and proceeded steadily from one task to another. His task-orientation (e.g., Nichols, 1984; Nolen, 1988) made him busy all day long and his school days productive. For instance, when the "Immigrants All" project was only going on for one week-- at which stage the majority of the children in his class were still trying to formulate their "outline" for their country study, William had produced three different texts-- that is (a) four page typed outline on Hispaniola, (b) a one-page typed outline on "Immigration" focusing on essential topics such as "How Immigrants Came," "The Route to America," "Why They Immigrated," and "Their Life in America," and (3) some notes for a draft of a brochure on Haiti, his country of choice (FN2-21).
When the range of products he created was considered, it became evident that William went beyond Christine's expectations. For example, by the end of "Immigrants All" project, William had generated two-- instead of one-- major "project representations" in addition to the "intermediary tasks" (e.g., outline and timeline). Based on observational data on focal learners during "worktime", which was collected daily, it appeared that it was his motivational orientation which had made William a prolific writer. This conclusion was also consistent with S14's own words when, in an informal interview, he said that "When you do research, you need to read as much as you can....It's always nice to know lots of things, so that you get a lot of variety" (interview transcript:5-16). And when asked how he organized his research, William said "I used what Mrs. G [Christine] had suggested [i.e.] 'who, what, where, and why' to get a whole picture of what is happening." When further probed why he followed Christine's suggestion, William said "If we follow what she says we would be learning as much as we can" (interview transcript:5-16). In his "Self-Assessment Sheet", which he filled out the day after the "Immigrants ALL" project was "published", William graded himself an "V+" for the overall performance in this particular project. He justified his grade in writing: "I think I put my best work and a lot of time into our country study." (observation transcript:3-14)
In the following pages, a sketch of William as a writer is presented by way of describing his general strategies in handling the task of reading-to-write, which represented an important part of "Immigrants All" project. For this particular "project representation," William had chosen to write a brochure on Haiti, using as a main source text a book entitled Haiti... in Pictures (Visual Geography Series, 1987, Learner Publications Company), 64 pages including index.

To enable a comparison of the source text in use and the texts generated by William, the relevant portions of both texts are displayed together with analyses of the focal learner's engagements in this reading-to-write/ or composing-from-sources activity.

Haiti: History

Source text

History and Government
NOTE:
"History", in the source text, covers ten topic headings and takes up eight pages. These topics are:
- The Arawaks
- The First Settlement
- Hispaniola Deserted
- French Buccaneers
- French Colonial Period
- The Slave Revolt
- A Quartet of Natural Heroes
- Toussaint-Louverture
- Napoleon and His Gildid African
- Independence
Haiti...in Pictures
pp. 17-25.
William's Outline

History
A. The Foundation of Haiti
1. On Dec. 5, 1492, Christopher Columbus landed on Hispaniola and named it...
2. Columbus founded "La Navidad" on Christmas Day, 1492 (this was the first European settlement in the Western Hemisphere)

B. Ownership of Hispaniola
1. 1492 - 1697 = All Spanish
2. 1694 - 1795 = Pty. France mostly Spanish (Slaves freed 1793)
   a) By the Treaty of Aranjuez 1777
3. 1795 - 1804 = All France
   a) Treaty of Basle 1795
4. 1804+ = 1/2 Haiti 1/2 Dominican Republic
   a) With Haiti, the D.R., and Great Britain combined, they forced France to quit Hispaniola altogether (1809)

William's Extended Text

History
On Dec. 5, 1492, Christopher Columbus landed on the isle that Haiti is located, Hispaniola. Columbus founded a settlement called "La Navidad" on Christmas day, 1492 (this was the first European settlement in the Western Hemisphere). For a long time Hispaniola was owned purely by Spain until 1697; France claimed half. Then, in 1795, France got really greedy: they claimed all of it for themselves. And, finally in 1804, Hispaniola broke free from France and became Haiti and the Dominican Republic.

A line-by-line comparison of the source text used by William and the outline and extended text he produced
indicated that William generated his own macro-level organization (Meyer, 1982). This was evidenced in his use of "new headings" which were nowhere to found in the source text such as "The Foundation of Haiti" and "Ownership of Hispaniola."

At the sentence level, William integrated information derived from different places across the eight pages of the source text to reconstruct the history of Haiti from its "discovery" to its independence. This integration strategy was evidenced in the fact that, while William had used ideas from the source text, the "original expressions" from the source text were no longer easily traceable. It appeared, then, what William had done was this: reading the source text for information, blending that information with what he already knew, and then a constructing a new text to serve a rhetorical purpose he had in mind.

In the text that follows, some other portions of William's work is used to illustrate how he developed an outline from the source text, and used his outline to help produce a new text.

Haiti: The People

Source Text

The People

NOTE:

In the source text, this chapter takes up nineteen pages and covers the following topic headings:

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William read the text, took notes on "important facts and ideas", planned an outline to write a section for his "Haiti Brochure," selected what was relevant to be included in the composition (interview transcript: 5-16). In creating the outline, William reconstructed the organization of the ideas from the source text to fit his own rhetorical goal, which was to present Haiti from an interesting angle. The reconstructed and rearranged ideas resulted in the following outline.

William's Outline

People

A. Population
   1. 5.9 people
   2. Most densely populated country in the Western Hemisphere
   3. 95% are African-Haitian
   4. 5% purely French

B. Religion
   1. Most Christian
   2. Some enforce Voodoo

C. Art and Hobby

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1. Painting
   a) large murals
2. Carving/ wood sculpting
3. Dancing

D. Agraculture [sic]
1. avg. farm 2-3 acre
2. 80% of Haitians live in agricultural [sic] areas

E. Life / Living
1. Life expectancy, 53 years
2. 80% of people make less than $130 per year
3. Women do most of the work
4. 18% have piped-in water
5. 1% of Haitians have accessible electricity

F. Education
1. many Haitian go to France for school
2. 80% can't read or write
3. 1% go to College
4. (over 40% attend in the U.S.)
5. 40% of adults are illiterate

G. Transportation
1. Walking
2. 2,500 miles of road
3. 18,500 registered cars
4. In 1969 opened for Jet Planes

H. Nutrition
1. 78% of children suffer from malnutrition
2. avg. 1,900 calories per day

I. Disease
1. Common killers
   a) Tuberculoses
   b) Hookworm
   c) Yaws
   d) Malaria
2. Most can be cured by the proper care

With the outline serving as a pool of ideas, William made a further plan to serve his rhetorical goals as dictated by his knowledge about purposes and target audience for his writing. Here, again, William made a series of...
decisions as to which ideas to include, which ones to exclude and where to put them in his envisioned, to-be-composed text. This process resulted in two extended texts which differed from the source text both in their organizational structures and content presentations.

As evidenced in the following excerpts, William decided to split the "People" ideas from the source text into two separate headings, which he created himself: "For the People" and "Food and Agriculture."

William's extended text (segment#1)

For the People

With the information you have very recently obtained, you can probably guess that Haiti's education is dramatically different than the U.S.'s, for example: 80% of the population can't read or write, 1% go to collage [sic] and 40% of adults are illiterate. Yes, I am surprised too, but, unfortunately, it's true.

Haiti's health is also very different from the U.S.'s, many curable killers that Haitians still suffer from are: Tuberculosis, Hookworm, Yaws and Malaria. These can be easily cured, but most [people] can't afford it (the avg. Haitian makes $200 per year!). And, because of these diseases the life expectancy is a mere 53 years.

You can find many interesting people in Haiti...95% of them are African-Haitians, and only 5% are purely French. Like many of you and me, most Haitians are Christians, but, some still enforce Voodoo.

In segment#1, William departed from the source text in several ways. First, at the macro-level organization, he
transformed the linear-listing organizational structure of the source text into a comparison/contrast textual structure by using American condition as a point to contrast with. By so doing, the writer could enhance the comprehensibility of his text for his American fellow readers. This rhetorical decision also indicated William's sensitivity towards audience needs.

A second change was made at the sentence level by integrating information from various places in the source text to form a coherent new text to serve the rhetorical purposes he had set for himself. In so doing, William was also willing to contribute his own ideas by making some inferences (e.g., "These can be easily cured, but most [people] can't afford it"—second paragraph) and proposing his own opinion (e.g., "You can find many interesting people in Haiti..."—beginning of the last paragraph). Furthermore, at the word-choice level, William replaced the phrase "...95 percent...Negro descendants" (Haiti...in Pictures, p. 34) with its more politically correct equivalent: "95% of them are African-Haitians" (last paragraph).

In the segment#2 presented below, William infused a personal voice into the originally-flat-toned source text to make his brochure more interesting and memorable (Beck, Mckeown, and Worthy, 1995). As also the case in the segment#1, in segment#2 William pulled together information
from different places in the source text and integrated it into a coherent, new text which satisfied the writing purposes at hand and rhetorical demands of the genre.

William's extended text (segment#2)

Food and Agriculture

Even though Haiti is a French speaking country, I wouldn't consider their food gourmet...

The avg. Haitian consumes 1900 calories per day, and most of those calories consist of: Rice, Beans, Fish, and/or and of the fruits that were listed before [in the overall outline under "Food, Agriculture, and Plans"]. Moreover, 78% of Haitian children suffer from malnutrition.

Taken as a whole, then, the way William did writing from sources could be summarized as follows.

1. Reading-to-write. When doing reading for the purpose of writing, William approached the text with the intent of gathering (as opposed to merely comprehending) information for possible inclusion in his to-be-composed text.

2. Making notes to generate ideas for content focus

Guided by rhetorical purposes for his envisioned, to-be-composed text (i.e., Brochure), William took notes on important, relevant information and ideas to be clustered together as a repertoire of content knowledge.

3. Writing a new text to serve the already-set rhetorical purposes. While making the best use of the information gathered from source texts, and with the already-set
rhetorical purposes serving as a guide, William could frame and develop his ideas to serve his writing purposes and meet the demands of genre he wrote in.

Nancy (S13)

Nancy is an eleven year old girl. Physically active, she appeared busy most of the time. For her country study in "Immigrants All" project, Nancy chose "Poland" as a focus. For this project she initiated a great number of work. For instance, Nancy tried to search for information on how to decorate eggs for Easter by way of locating "Polish American" organization in Yellow Pages, a local phone book. After spending a considerable amount of time flipping through the yellow pages without getting the information she needed, Nancy then consulted Christine. Christine told Nancy that, rather than using Yellow Pages, Christine would suggest using "White Pages", which could be found in the office downstairs (observation transcript:2-15). It was later observed that Nancy did not make any follow-up actions on this.

Still working in the context of Poland country study, Nancy then took another strategy: she drafted a set of interview questions. Her intent was to fax the written questions to the Embassy of Poland and asked for some answers. The questions which Nancy had generated included:
- when was the house built?
- how many of the population are jews, calice [Catholics] and no relance [no religion]?
- do they do the same games in Poland then in America?
- is Poland pretty in all season?
- what is the biggest city called? (FN2-23)

With this set of questions Nancy then came to Christine for one-on-one conference. Experienced teacher as she was, Christine sensed that this girl was not sure as to what information to search for her research. Christine asked: "What do you want to know, Nancy (S13)? Just tell me one by one. We can redo it together." (observation transcript:2-23). Nancy got overwhelmed, and Christine offered a special, individualized help by suggesting that Nancy wrote her problems and/or questions in her journal for Christine to respond to.

As this information search on immigrant-related issues was not the only task to do, Nancy then switched back to another task which she had left unfinished: outline. Nancy used as a source text a book entitled Enchantment of the World: Poland, by Carole Green (1983, Children Press: Chicago), 126 pages including index.

Nancy was observed flipping through the source text for several minutes, and then she dwelled on "MINI-FACTS AT A GLANCE" pages at the back of the book. From this part of the book, Nancy then constructed her outline (FN2-12). Throughout the remainder of the project, Nancy worked with this source book.
As the above narrative records indicated, Nancy was a hard working learner, but adopted unsystematic strategies. Her sporadic, unsystematic working strategies caused Nancy to almost miss the deadline for the "Immigrants All" project. On the day when all tasks for "Immigrants All" project were due, Nancy managed to expand her outline by adding some words and a single sentence attached to some items of facts, which appeared to serve as the core content of the sentence. This occurred just one hour or so before the time when all project-related works had to be finished. Nancy did the composing-form-source by typing from memory without referring to the source text (FN3-13).

In her "Self-Assessment Sheet", which she completed the day after the "Immigrants All" project was "published," Nancy gave herself an "a+" for her overall performance in this particular project. Her justification for this grade was because "I worked very hard on it." (observation transcript:3-14)

The text that follows present an analysis of the ways Nancy moved from the source text to her outline and then to the extended text. As indicated earlier, it should be noted that Nancy used as a sole source the "fact sheet"-- which represents a brief summary of the informational content of the book. In consequence, Nancy did not have rich information to draw on for her writing. Aside from that, when Nancy "transformed" her outline into extended text, she
did it out of memory without consulting the source text she had at her disposal (FN3-13). Her reading-to-write strategy resulted in the following text.

**Poland: Food**

**Source Text**

*Food:* Meals often feature a thick soup, *bigos,* which is eaten with fork and knife. Fresh vegetables and fish are also popular. Dessert is generally stewed fruit. In recent years, Poland has been troubled by rising food prices and shortages, especially products such as fresh meat.

*Enchantment of the World: Poland*  
*p.114*

**Nancy’s Outline**

I. Every day life  
A. Food  
1. Thick soup, Bigos  
2. Vegetables  
3. Fish  
4. Stewed fruit  
5. Fresh meat

**Nancy’s extended text**

*Food*  
Thick soup was called Bigos it was used with a fork and knife. Fish and vegetables are very popular in Poland because they mostly eat it because that all they can afford. Stewed fruit is for dessert in Poland it is tasty. Fresh meat is very hard to lower prizes on it because it really cost a lot.

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Analyses of the top-level organization indicated that Nancy's extended text was a duplicate of the "listing" format and flat-toned presentational style used in the source text. Given that Nancy's overall document was meant to be a brochure--which should "speak" to its readers and attract their interest--the rhetorical style used in her extended text did not fit the intended purpose.

At the sentence level, Nancy did make some elaborations. She included personal comments (e.g., "...it is tasty" [sentence 3]) and some inferences from background knowledge (e.g., "...because they mostly eat it because that all they can afford" [sentence 2]). Notice also, however, that Nancy's heavy reliance on the construction of "because..." as a way of elaborating a proposition had resulted in awkward and problematic sentences, such as "Fresh meat is very hard to lower prizes [prices] on it because it really cost a lot" (last sentence).

In the following excerpts, Nancy--while continuing to rely on "...because..." sentence constructions--dismissed the qualification signals "about", which were functionally used in the source text (i.e., the first word in the first sentences in both excerpts), and reconstructed the ideas as an exact proposition, which could lead to a serious misrepresentation.
Poland: Schools

Source Text

Schools: About 94 percent of the Poles can read and write. Education is free and the school system is run by the government through the Ministry of Education and Higher Learning. Children between the ages of seven and fifteen are required to attend school. Students may also attend vocational or four-year secondary schools. Examinations must be passed to be admitted to schools of higher education.

There are ten universities and almost one hundred state universities and other university-level schools. The oldest university, The University of Krakow (now Jagiellonian University) was founded in 1364. There is one private university, the Catholic University of Lublin.

Enchantment of the World: Poland
p.114

Nancy’s Outline

C. Schools

1. 94 percent of Poles can read and write.
2. Education is free.
3. Between seven and fifteen [children] are required to attend school.
4. The University of Krakow non [is now known] as Jagiellonian University.

Nancy’s extended text

Schools 94 present [percent] of Poles can read and write in Poland because it is very hard to learn to read and write. Education is free in Poland because of its hard work. Between
seven and fifteen children are required to attend school in Poland because they have to learn during those ages.

Poland: Communication

Source text

Communications: About eighty newspapers are published, with a total circulation of about 8.5 million copies. There are also three radio networks and two television stations.

Enchantment of the World: Poland p.114

Nancy's Outline

G. Communication

1. Eighty newspaper
2. 8.5 million copies
3. Three radio networks
4. Two television stations

Nancy's extended text

Communication

The only way Poles get information is: Eighty newspaper are 1 way and there are a few more ways like 8.5 million copies and the three radio networks and two television stations are the way they get communication.

Based upon these multiple levels of analyses, it seemed fair to conclude that Nancy had serious problems with her reading-to-write "Brochure" project. Multiple problems
might have contributed to Nancy's problematic engagement in this reading-to-write activity. First, the issue of her overall reading purposes. It seemed that Nancy held different purposes in her reading, which diverted from what Christine had expected, as evidenced in Nancy's choice to focus on the "fact sheet" instead of the whole book, as suggested by her teacher. This "strategy" left Nancy with a very sketchy informational content as a source of ideas to draw on for her subsequent note-taking for her outline.

A second related problem was the construction and use of her outline. Drawing on a very brief "fact sheet" to construct her outline, Nancy could only work with a limited amount of information, which consisted mostly of discrete pieces of facts. This collection of discrete facts posed to her a tremendous problem to elaborate on, as the discrete facts lent themselves only to listing. When she "forced" herself to provide "explanation" in her extended text, Nancy ran into another problem which resulted in some awkward sentences as demonstrated earlier.

In moving from her outline to her extended text, Nancy treated the outline as a fixed list of content rather than as a pool of ideas to select from for the subsequent composing activity (Burtis, Bereiter, Scardamalia, & Tetroe, 1983). In consequence, this strategy resulted in a duplicate of the source text both at the levels of organizational structure as well as informational content.
A third problem seemed to stem from Nancy's limited knowledge of-- and skills in using-- English sentence structures (Kaufer, Hayes, & Flower, 1986). Nancy's overreliance on "...because..." sentence-construction formula was evidently reflective of her limited verbal agility.

Related to the first, the fourth problem was fundamental, as it had to do with "task representation" (Flower, 1990), which was "an interpretive process that translates the rhetorical situation -- as the writer reads it-- into the act of composing." (p.35). Rather than using this task as a spring board to serve her self-set rhetorical goals as demanded by the genre she had chosen to write in (i.e., "Brochure"), Nancy appeared to perceive and treated the task of elaborating her outline as a separate task, detached from her authorial space. As a result, she produced a brochure with a voiceless presentational style, echoing the "fact sheet" summary, which had its own purposes differing from the functions that a brochure normally had.

Summary of the Two Focal Learners' Engagement

The first focal learner (i.e. William) treated his notes (or "outline") as basic ideas that were later worked into his composition. When using the notes in his extended text, William used them in a rearranged order, and he might collapse several notes into one and expand a single note
into several sentences. As dictated by his rhetorical purposes and genre demands, he left some notes unused and added some new material as he composed. Thus, in William's passing from the notes (or "outline") to the extended text, a great variety of transformations were made at multiple levels of textual production.

In contrast, the second learner (Nancy) treated notes as a first draft of the composition. For Nancy, it appeared, notes represented content. Consequently, when she composed, she just copied the notes as if the notes already constituted a complete first draft of the essay. In her way of composing, therefore, there was no transformation made as there was no intermediate product. This was evidenced in the profound structural resemblance of her notes (i.e. "outline") and her subsequent expanded text.

From the way the two focal learners approached the reading-to-write assignment and the way they further processed the informational content, it seemed reasonable to expect that the two differing strategies would result in different types of learning. William's strategies, which seemed to have led him to do "deep processing", would likely result in meaningful learning (e.g., Meyer, 1992). In contrast, Nancy's strategies, which seemed to operate at the surface-level text processing, would lead to rote memorization at best. This would likely be the case if Nancy-- and any other learner with comparable strategies--
did not actively engage herself in further using the newly acquired facts for some authentic purposes (e.g., Jonassen, 1992; Kucer, 1991).
CHAPTER 6

DISCUSSION

The purpose of this study was to describe literacy activities, instructional supports and children's learning engagement. The study adopted a situated approach by "getting into instruction" where those literacy activities, instructional assistance and learning engagement were nested as naturally occurring events in the ecological context of everyday teaching-learning interactions in an informal classroom during the enactment of four major project units. The study systematically described and analyzed those four major project units in terms of literacy tasks, instructional assistance and learning engagement. The description and results of the analyses were presented by way of a "progressive disclosure" in order to preserve their ecological validity as those three research foci were intertwined and mutually shaping.

This chapter consists of five major sections. The first section discusses major findings of the study and their connections to other studies. The second section presents lessons learned from the present research and cautionary
notes to the field. The third section discusses implications for researchers and practitioners based on the results of the study. The fourth section presents limitations of the present research and advances recommendations for future research. The fifth section concludes the chapter by elucidating a model of project-based learning cycles.

**Major Findings and Their Significance**

This section discusses salient issues which emanate from major findings of the study including (a) complexity of project-based instruction (b) complexity of teachers' work; (c) literacy engagement and achievement; (d) transfer of literacy knowledge, skills and dispositions;

**Complexity of Project-Based Instruction**

Project-based instruction is complex. It is probably more complex than what normally happens in conventional instruction. Conducting project-based instruction in an informal program poses even greater challenges because, as outlined in Chapter Three, this particular program adopts a child-centered philosophical stance, which commits itself to using children’s needs and interests as a basis for instruction. The classroom teacher in this study described the complexity of an informal program this way:

It really means more planning because all the structure is hidden really. It’s hidden. It’s
not as easy as 'read the chapter and do the questions at the end.' It's because it's internally structured and she has to know a lot more knowledge of everything. Not only does she have to have knowledge of what she is doing in social studies but she has to relate it to what can be done in language arts and the reading and writing so it can all be done together and pulled together by the end of the year (interview transcript: 6-19)

As indicated in the excerpt, albeit rather too simplistically, in order to be able to conduct project-based instruction in an informal program, it was required of the teacher (1) to be able to make an informed planning so that the theme-based project units-- in which literacy tasks were nested-- could serve as a good vehicle for integrating conceptual and procedural knowledge which was "targeted" as learning points within the projects; (2) to have a sophisticated degree of familiarity with idiosyncratic and collective inclinations of the students she work with; (3) to have a solid knowledge base in the areas "covered" by the projects; (4) to have clear understanding about important concepts from all subject areas so that interdisciplinary ties could be drawn which would enable the teacher to flexibly "infuse" her teacherly agenda within the projects that individual students or groups of students had decided to work on. Additionally, as the projects usually required students to dwell on the same tasks for an extended period of time, teachers also should have some strategies to maintain children's interest and persistence in working
through their projects to ensure completion. As well, most importantly, the teacher had to know some strategies to help ensure that the students were engaged in cognitive dimensions of the tasks rather than devoting most of their attention, time and energy on the physical activities of creating artifacts or representations. Also important is the knowledge about how to assess student learning within the constructivist spirit, which encourages multiple representations of knowledge.

Complex demands of the project-based instruction could also originate from students, who came to the tasks with differing levels of ability and motivation. Every student would need some assistance. The biggest challenge for the teacher here was to scaffold students in such a way that they got sufficient support they needed but at the same time they were willing to take responsibility for their further learning.

The complexity of this project-based instruction as experienced by participants of this study was similar to the difficult experiences reported by teachers who were involved in "Project-Based Science" (PBS) (Marx et al., 1997).

**Complexity of Teachers' Work**

Based on data from direct observations of teaching-learning interactions as they were situated in the complex ecological environment of the classroom, it appeared that
the teacher's work was complex-- more complex than what had been suggested in research reports from the process-product tradition. The complexity of teacher's work was evidenced most notably during group planning sessions where students and their teacher negotiated learning agendas. During these sessions the classroom teacher, who was committed to the idea that meaningful learning could occur only when learners found the tasks interesting and relevant to their personal needs, attempted to strike a balance between her teacherly agenda, which was necessarily driven by course study requirements, and her commitment to the child-centered ideas of learning and instruction, which seriously considered children's interest. Child-centered principles also entailed giving children freedom to select their own tasks to work on or forms of representation (i.e., artifact) to present as evidence for their learning. This commitment entailed also differentiating forms of instructional assistance which the teacher needed to provide to support individual students or group of students to ensure their continued interest and persistence in accomplishing their optimal learning from engaging in their self-selected projects.

The complex nature of demands posed by this child-centered classroom, however, was not an unsurmountable obstacle for the teacher who participated in this study. As revealed in a series of interviews and observational data, out of many years of her professional experiences, this
teacher had developed strategies to resolve the tensions which come from and lead to different directions. For example, the teacher encouraged children to take responsibility for their own learning and assessing the achievement of their efforts. At the same time, however, she also found a way to "infuse" her teaching agendas when she saw a natural need arising in the context of students' engagement with their projects. This teacher's instructional, cognitive assistance-- which usually took the form of direct teaching-- was most observable in the context of one-on-one conferences.

By "infusing" her teacherly agenda in the context of students' immediate literacy needs, the teacher was able to maintain the authenticity of her intervention as it was functionally embedded in the larger context of students' engagement with their own projects. This direct, contextually embedded instruction was only one strategy of many that the teacher employed in response to the complex demand posed by her classroom. On many occasions, for example, she devised a social organization which enabled children to learn collaboratively with peers. This particular strategy was not only consistent with one of the social constructivist perspectives to which she subscribed, but it gave pragmatic value to the teacher. That is, she noted that "group work is a good in problem solving, where children can talk over ways to go and try certain things
out... Children are the best teachers (for this particular purpose) because they can put in kid language how to do something." (interview transcript:6-19)

This data-based depiction of the complex nature of teachers' work, and how the teacher in this study has successfully resolved some tensions within her work, should provide "case knowledge" (Shullman, 1987), which is useful for further learning. It is this kind of knowledge that the field is currently in need of, as suggested by Morrow et al. (1994) when discussing challenges which come as a part of "reform" in literacy education. In their own words, these authors write:

...(J)ust as this (integrated language arts) perspective suggests the importance of choice for children in selections of literacy tasks to undertake, so too there are choices for teachers in deciding which strategies they will use to suit their teaching style and the needs of the children they teach. There is no one right way. (italics in original) (Morrow et al.,1994, p.4)

To put it differently, this research has provided the field with one successful experience-based example of how a teacher resolved some tensions in the complex environment of constructivist-inspired classroom practice.

**Literacy Engagement and Achievement**

Students' literacy engagement is a function of interactions among many factors, and so is reading and writing achievement (e.g., Onosko, 1990). Task design,
various forms of assistance rendered to students (e.g., support materials, social organization, and procedural assistance) and accountability system enforced in the classroom interact one another in a complex way. These factors, together, exert influences on children's learning engagement (e.g., Blumenfeld et al., 1987; Doyle, 1979, 1983, 1986; Marshall, 1987). Findings of this study support these ideas.

More specifically, literacy tasks which served functional purposes in a larger context of socially negotiated learning activities appeared to increase students' productivity. Children in this study generated both extended oral discourse (e.g., open discussion following readers' theater presentation, business sharing & board meeting) and elaborate written texts in various genres (e.g., feasibility study reports, drama scripts) as an integral part of their extended engagement with their self-selected projects. This finding runs counter to the earlier findings of research about cognitive demands of tasks reported by Mergendoller et al. (1988) and those findings about the four-grade students' unsophisticated written work reported by NAEP (1992).

One possible explanation for the literacy productivity and working persistence of the students in the present study is that the children in this classroom participated in constructing the tasks, and they voluntarily read and wrote
as an integral part of accomplishing a larger project. In this way, children read and wrote in order to serve some genuine, functional purposes external to the literacy task itself. This finding provides evidence to support the theoretical notion of authenticity (e.g., Jonassen, 1992; Kucer, 1991), an important construct which recognizes the important roles that learners play in constructing their own learning. That is, when children see personal relevance in literacy tasks they are to do, it becomes more likely that the children would expend their intense attention to the task at hand; and this self-investment will bring about high learning engagement.

In addition, because students invest their resources in proportion with the cognitive demands of the task at hand (e.g., Durst, 1985; Sternglass, 1983), task requirements play an important role in determining how the students cognitively process the literacy task. In this study, analyses of cognitive loads of literacy tasks across the project units revealed that the overwhelming majority of the tasks designed by the teacher required students to engage in higher-order thinking. That is, the literacy tasks confronted the students with a non-routine mental work which forced them to evaluate, interpret, or manipulate information as a part of the accomplishment of a larger project goals (e.g., Newmann, 1990), such as those requirements exemplified by "Business in America" project:
"cost per item", "market survey", and "report write-up" (i.e., feasibility study). Given this finding, it is likely that, to the extent that literacy assessment measures fit the kind of literacy activities the children are engaged in, the bleak picture of low-level literacy achievement reported in NAEP's recent survey research would not hold true for the majority of children in this classroom.

This finding suggests that teachers should pay more close attention to the tasks they give to students because it is through the tasks that the students learn both conceptual and procedural knowledge as well as the value of schoolwork and schooling (e.g., Blumenfeld & Meece, 1988; Blumenfeld, Mergendoller & Swathout, 1987).

Transfer of Literacy Knowledge, Skills, and Dispositions

Literacy knowledge, strategies and dispositions acquired from an extended engagement with tasks which were embedded in their complex, natural environment appeared to form a rich conceptual knowledge--the kind of conceptual knowledge which can readily transfer to another, similar task (cf. Prawat, 1989). Illustrative data from the study, which clearly indicate the transfer of conceptual knowledge, include children's understanding of the similarities and
differences in the nature of task demands between "Readers Theater" and "Vignette Writing" presented in chapter four. The richness of students' conceptual understanding, which was also displayed in the progressive disclosure discussed in the earlier chapters, can be attributed to the fact that these students were immersed in the complex environment of the tasks and engaged in literacy tasks in response to the needs which naturally arose from the task environment (e.g., CTGV, 1992; Spiro, 1992). To further illustrate this point, some explanation can be made about major literacy and mathematics tasks which were embedded in the conduct of "Business in America," where students simultaneously assumed the roles of both producers and vendors of their business products with all the potential benefits and risks inherent to the business enterprise. This real-life task environment encouraged students' optimal engagement.

To sum up, the two major findings discussed up to this point indicated that literacy tasks which served some functional and natural purposes in a larger, complex, and natural learning environment can not only encourage students' full engagement but also the situated nature of the accomplishment of the tasks can likely transfer the students' relevant knowledge, strategies and dispositions to
environments beyond the tasks in the classroom. And this is the kind of empirical evidence that is needed to support the arguments for integrated curriculum, which have so far been supported only by theoretical propositions (Guthrie & McCann, 1997).

Project-Based Learning Cycles: A Model

This model represents a consolidated form of learning experiences in a project-based program as they occurred in a fifth-grade class during the enactment of four major project units reported in the study. The model was, therefore, grounded in the data. Using categories of "learning phases" derived from comparing and constrasting the results of analyses of the four project units described in chapters four and five, the model was developed on the following assumptions:

It is, first, assumed that students construct knowledge through active information-processing and sense-making efforts; in so doing, it is assumed, they undergo conceptual change and restructure their ideas. Additionally, it is also assumed that the relative success of an academic task in engaging student with important ideas will depend not only on the nature of the task itself but also on the nature of
the way the teacher builds the learning environment and students-teacher interactions that occur before, during, and after the time period in which the students respond to the task demands (cf. Marshall, 1987). It should also be noted that the "phases" in this model are not necessarily linear; because as the students bring their background knowledge to the task and synthesize what they know, the process can be recursive.

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The cycle of project-based learning & cultural upgrading

1. Students & Teachers (Ss & T) early-year planning
2. Ss & T establishing common knowledge-base
3. Ss & T exploring & enriching topic knowledge
4. Ss & T publishing individual learning
5. Ss & T sharing experiences & exchanging comments
6. T & Ss solidifying enriched, common knowledge-base
7. T & Ss assessing collective learning & projecting future improvement

Figure 6.1: Project-based learning cycle
A model
By taking into consideration the assumptions spelled out earlier, we now shift our attention in order to elucidate the phases of learning engagement, beginning with the social construction of learning agendas. This curriculum construction starts in the beginning of a school year by inviting input from students as to what themes/or topics they want to study for the whole year. During this early-year planning, the teacher also tells the students about her curricular agendas. With her pedagogical content knowledge (Shulman, 1987), the teacher should be able to take some of the student-generated topics and wed them with the curricular agendas demanded by "course of study." The agreed-upon topics, which result from this students-teacher negotiation, are written down and posted at the place which is visible to all members of the class. The purpose is to establish a sense of commitment for the whole class, and sense of direction as to where the class is going to go in terms of learning experiences.

Once the agreed-upon themes are in place, some short-term collaborative planning can be carried out to determine which theme to be studied first. Teachers and students negotiate and decide on one large topic to be explored for a particular period of time. This collective decision making
should result in one agreed-upon theme around which some smaller projects may evolve for an extended period of time. The reason for involving students in selecting the topic is to encourage the development of sense of control and ownership of what they are going to learn. In the ensuing paragraphs a discussion is presented of each phase of the learning cycles which make up the whole set of project enactment.

**Establishing a Common Knowledge-Base**

In order to establish a common knowledge-base for the whole class, an arrangement should be made or a certain environment created so that the whole class have a common experience. Good examples were provided by the teacher in this study. That is, Christine invited an immigrant informant to the class; took students to German Village (for "Immigrants All" project); students watched "Oscar video" and drama performances ("Play" project); "Saltine Crackers" and "Ice cream treat" ("Business in America"). The purpose here is to provide topic-relevant shared experiences as an initial base for students' discussion. This real-life experience plays two important roles: (a) as a motivation enhancer, because generally direct encounter with objects or
events can generate excitement; and (b) as a tool to encourage students’ questioning.

Based on this common experience-based knowledge, students and their teacher discuss a particular, to-be-learned topic in terms of what they already know about the topic, what they want to know more about it and how they want to go about studying the topic. At this stage, the teacher makes visible by writing down on the board (or an overhead projector) what the members of the class already know about the topic. The objective is to "externalize" the existing background knowledge about the to-be-learned topic. The discussion of what they want to know more about the topic follows next. Again, together, students and their teacher collaboratively negotiate what they want to explore more about the topic and formulate the agreed upon learning foci in the form of questions or problems. The important questions or problems which result from this discussion are to be written down on the board or overhead projector to make them visible to everybody in the class. Teacher may publicly offer these core questions or issues-- which represent important content topics of subject areas-- to students as topics for further exploration. The objective is to make public which students explore which problems to
facilitate further collaborations among the students, especially those who work on closely related dimensions of the issues under study. After exposing the possible topics or issues for further exploration, the teacher may take initiative to draw students’ ideas about ways of studying the topics. Together, the students and teacher discuss possible ways or strategies of approaching the topics. During this discussion, as she deems contextually appropriate, the teacher might bring to students’ conscious attention the facilitating values of utilizing literacy study skills such as note-taking, summary writing, and surveying relevant information using a computerized system. Ideas from this discussion are to be recorded in a way that is visible to everybody. The purpose is to externalize the collective knowledge about strategies for locating, selecting and organizing information from textual sources.

The externalization of students’ existing background knowledge about the to-be-explored issue, what they want to know more about it, and ways they think are most effective and efficient to explore the topic should serve as an initial knowledge base for the whole class at this stage. The externalization of knowledge at this stage is important
because the process helps transform students' personal knowledge, which will otherwise remain in tacit form.

Exploring and Enriching Topic Knowledge

With teacher's assistance or counsel, students, individually or in groups, locate relevant information, do reading and/or writing in order to further explore their self-selected topics by using as a guide the what-to-know-more questions they already constructed in the earlier stage. While the students are exploring and enriching their topic knowledge, teacher should encourage them to start thinking, individually or in collaboration with peers, about ways to represent their knowledge. At this particular stage, teacher needs to encourage students to discuss their ongoing projects with peers to get feedback and support. The teacher may also need to contribute ideas by showing models of various possible forms of representation for students to consider taking. While the choice is left with the students, this exposure to a variety of possible forms of representation can give students an idea as to which particular directions to take during this stage of topic knowledge exploration and enrichment.
As well, teacher needs to closely monitor each individual learner’s progress status from time to time so that instructional assistance can be offered at the appropriate time as the need arises, while relinquishing the responsibility for learning to students. This monitoring is important to ensure process-quality for students’ optimal learning from the task they work on.

Later in the stage, teacher needs to have one-on-one conference to discuss what each individual learner has learned from the task before the task is presented to the whole class. This one-on-one reflective discussion is necessary to initiate externalization of learning experiences so that the student have well-thought-out ideas to share with peers when it comes the time for them to publish her/his knowledge representation (i.e., artifact).

**Publishing Individual Learning**

Based on her/his learning through exploration and enrichment of the topic knowledge carried out in the earlier phase, individual students/or group of students publish their learning representations (or artifacts). Together, the students and teacher celebrate results of their learning by displaying and enjoying learning artifacts generated by
individual students or groups of students. Educators (e.g., Katz & Chard, 1989) have argued that this particular stage of learning is useful because through this activity students "can appreciate the products of their efforts as these contribute to a record of the learning of the whole class" (p.120).

Sharing Experiences and Exchanging Comments

Overlapping in time with or shortly after the celebration of the project, assisted by the teacher to ensure order and productivity, students orally share their learning experiences and exchange personal comments to one another on what has been presented in the celebration of the project. This is the stage where peer audience and interested others are encouraged to ask questions about the presented artifacts to the students who generated them. This also represents a moment where students talk about the processes of how the artifacts have been constructed and the ideas behind the choice of this particular form of knowledge representation. This externalization of experiences may facilitate students in assessing their own cognitive operations because in the process of verbalizing what they have carried out the students are necessarily forced to make

Solidifying the Enriched, Common Knowledge-Base

To consolidate this socially constructed knowledge which results from experience sharing, the teacher may take one step further by explicitly establishing a forum for a "producer-critic dialogue", where students-- using their own work and experiences as a basis-- critically discuss relative efficacy of their working strategies and/or value of their work. Dialogue is similar to casual conversation but with a very clear focus-- constructing shared meaning. Through this dialogue, as Peterson (1992) has argued, students move together toward "understanding, disclosing, and constructing meaning" (p.103). In dialogue, one's argument will be confronted with someone else's counterarguments. Through this dialogic interaction students have the opportunity to test their understanding, hypotheses, speculations, and then "revise" their ideas in cooperation with their peers and other learning individuals on the basis of mutual-need and shared values which govern the interpretive community in this class. In this situation,
one person does not control the meaning-making process, but joins with others to make sense of their experiences. In conducting this dialogue, the teacher needs to make sure that students understand that the exchange of "evaluative comments" are to their own benefit. When properly conducted, as Collins, Brown, and Newman (1989) have suggested, this kind of discussion, where students assessing their own knowledge and experiences by comparing and contrasting them with those proposed by others, can consolidate their newly acquired knowledge.

Upon completion of this activity, it is expected that each individual student should have a wider-- and more refined-- repertoire of substantive and procedural knowledge about their own project in particular and the bigger theme where their projects are nested.

Assessing Collective Learning and Projecting Future Improvement

Teacher can augment students' learning from the earlier phases of engagement by specifically providing an opportunity for students to do a reflective writing activity. This activity has dual functions: internally and externally. Internally, this reflective writing serves a
useful tool for students to refine and consolidate their both substantive and procedural knowledge about the project they have generated (cf. Emig, 1977). Externally, this student-generated knowledge, which is in the form of written text, can serve a valuable function as feedback for the teacher. An important consideration for the teacher to make here is that she should establish realistic audience for the students' writing so that they can engage the writing task authentically (Jonassen, 1992; Kucer, 1991). A good illustration for this reflective writing is what the students in this study did in response to Christine’s task design as part of the "Play" project discussed earlier.

The result of students' evaluation of their own learning experiences through the projects they engage in can provide valuable experience-based feedback from students' perspective. This student-generated feedback can, in its turn, serve as a basis for the teacher's future planning.

In this way, by going through all the learning phases in the cycle, both students and teacher together as a community of learners can establish ever-expanding knowledge bases; because, as understanding is achieved at a more refined level, a more concrete representation of knowledge can be revisited in a new light.

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Lessons Learned:

The Cases of Christine and William & Nancy

Christine, The Teacher

As a veteran teacher with over twenty years of experiences in reading/writing about children books and teaching in elementary school, Christine was, perhaps, among the minority expert teachers in elementary school circles, as suggested by some of her colleagues. Similar high regard for her expertise, especially in literacy, was also once suggested by the school principal.

Christine knew a great deal about child development; she could easily talk about the relative standing of each individual student in her classroom in terms of their academic development. Christine knew in details which student had read what books in her class, and she could easily suggest the best book for her/him to read next.

The detailed nature of Christine's knowledge about levels of literature and child development in general, and the literacy development of each individual student in her classroom in particular made it possible for Christine to effectively design individualized tasks and offer individualized instructional assistance. Her knowledge about
each individual student's personal "learning styles" also helped Christine succeed in organizing and monitoring simultaneous tasks and dealing with possible disorder.

Christine was also very serious in her attempt to encourage students to think for themselves and take responsibility for their own learning. An example is when some students came over to her and asked her for answers to problems they had. Never was Christine tempted to give the students ready answers to their problems. Instead, Christine asked them some probing (and leading) questions, which would eventually lead the students to come to their own answers.

In sum, it can be concluded that the teacher in this study was successful in conducting her project-based instruction. Her success can be attributed, among other things, to (1) her belief about the nature of learning and instruction which was consistent with Constructivist perspectives which undergird the project-based program, (2) her solid knowledge about important concepts across subject matters and their interrelationships, (3) her extensive knowledge of child development and children's books, (4) her strong commitment to child-centered principles of learning, and (5) her own love for learning new things through working
with children. (Christine's enacted curriculum which reflected her knowledge base was presented in Figure 6.2)

**CREATING A LEARNING ENVIRONMENT**
- *providing sources of information*
- *encouraging self-direction & independence*
- *monitoring & accountability*
- *establishing a non-competitive, collaborative community of learners*
- *creating opportunities for sharing & dialogue*

**HAVING THE "BIG PICTUR"**
*knowledge of child development & how children learn*
*knowledge of literacy acquisition & literacy processes*
*curricular knowledge*
*knowledge of spec. goals & objectives*

**EXPLORING A WEB OF POSSIBILITIES**
*tapping into students' interest*
*developing links across curriculum*
*exploring uses of language*

**ASSESSMENT**
*on-going observation (oral & written lang.)*
*one-on-one conferences*
*running records*
*inter-subjective criteria*
*keeping files of student work*

**INSTRUCTION**
*whole-class direct explanation*
*modeling & scaffolding*
*supporting exploration*
*purposeful, flexible grouping*
*one-on-one conferences*

**TASK DESIGN**
*experience-based*
*real-life relevance*
*nested in a larger task environment*

*Figure 6.2: Christine's enacted curriculum*
Learning from William and Nancy

William and Nancy were both "self-directed and busy" writers in their own right. During the conduct of this research these two students wrote a common piece in the same genre: a brochure of the country they had chosen to study. Their extended texts, however, were vastly different from each other both in their extendedness and their level of sophistication. William, a prolific writer, generated an "original" work which served its own purpose as a brochure, with a writer's voice relevant to the genre. Nancy, in contrast, generated a list-like, short text with awkward sentence constructions. For the remainder of this section, we focus our attention on Nancy's case because of the potential lessons it could generate.

It was noted in the earlier chapter that the main source of the problem which had led Nancy to generate a list-like composition was her decision to rely on a "fact sheet" as a sole source text from which she develops her brochure. It was also noted that Nancy expanded her outline just shortly before the work was due. One might raise some questions at this point. Why did Nancy take the fact sheet as a sole source for her composing-from sources project? Why
did she expand "kernel sentences" by solely relying on "...because..." sentence construction?

Further analyses of observational data on Nancy’s reading/writing behavior pointed to the conclusion that Nancy had failed to proportionally allocate her time across several tasks which she had to accomplish at the same time. As the deadline was approaching, Nancy decided to "get things done" with whatever she had at the moment. This was evidenced in the way she wrote her extended text, which was done without even consulting the source book. This finding was consistent with Many et al.’s (1996) observation that "The approaching deadline for the completion of the projects, the end of term...influenced students’ reading and writing engagements." (p.30).

In order to establish an explanation of why Nancy relied too heavily on the "...because..." sentence construction in expanding kernel sentences for her text, a further analysis of observational data was conducted which focused on the teacher’s statements related to the notion of "explaining things" across the whole-class sessions. The result pointed to the likelihood that Nancy picked the idea of developing ideas by using "because" from her teacher’s frequent use of such a word when asking students, in the
context of doing self-assessment, to justify the grades they gave themselves (e.g., "Imagine I am asking you why"). As far as the idea of "explaining things" is concerned, these instances were the only explicitly-presented verbal models for Nancy to learn from the instruction.

If this was the case, then, Nancy, and several other students like her, should be explicitly exposed to different ways of developing ideas (or, supporting claims). Explicitly bringing this issue to students' conscious attention would likely prove empowering to students like Nancy, at least at the level of sentence construction. Research in the field of writing has established that proficient writers are proficient because, among other things, they have a great deal of different ways of expressing the same idea (Kaufer, Hayes, & Flower, 1986).

Implications of the Study

This study brings to the fore several salient features of interest to both educational theorists and practitioners who are concerned with improving educational practice at the classroom level. More specifically, the findings of this research have provided empirical evidence which can have
several implications for further development of theories of learning and instruction.

First, related to an issue raised by Guthrie and McCann (1997), who conducted a review of research literature on "integrated teaching" and found very scant empirical evidence supporting it. The finding of this study responds to this concern by providing data-based description and analyses of how a teacher was able to integrate various subject matters into theme-based projects and, at the same time, engage students in authentic literacy tasks.

A second implication can be drawn in relation to the issue of students' low-level learning engagement as indicted by contemporary educational critics (e.g., Finn, 1991). Findings of this research challenge this indictment by providing evidence which shows that, when students participated in choosing the learning tasks, they became motivated to invest their attention, energy and time to accomplish the goals as required by the tasks. This finding also underscores the importance of a task design. That is, in order to facilitate student learning, teachers should pay more attention to how they design the task and how it may affect student learning. Some educators and researchers have suggested that several things can be done to promote student
learning engagement. For example, teachers can help students see the value of a task by explaining its rationales which includes the importance and utility value of the task (Pintrich & Schunk, 1996). To encourage students to take responsibility for their own learning, teachers need to create an environment where students have some freedom to choose the topics, tasks and media for their learning. Students who feel that they have a control over what they do tend to take ownership of their own growth as a learner (Guthrie & McCann, 1997).

Third, with regard to the issue of low literacy achievement in elementary schools as reflected in low-level of sophistication in students' written products (NAEP, 1995), the findings of the present research indicated that when students read and wrote for meaningful purposes external to the didactic purposes of the literacy activity itself, the students voluntarily read for multiple purposes, produced extended oral discourse and sophisticated written texts as required by the task environment. The key here, as it seemed, was that the task should be authentic and generative in that it contains interrelated subtasks which would naturally require students
to use their literacy skills in order to accomplish the subtasks which were nested in a bigger task environment.

Since knowledge develops through, and is embedded in, the tasks or experiences (e.g., Duffy & Bednar, 1992), students' experiences in using literacy for multiple purposes in multiple genres for an extended period of time would accumulate into usable knowledge, including the kind of knowledge used in literacy assessment (cf. Blumenfeld et al., 1987). It seems reasonable, then, to expect that, to the extent that the assessment tool in use to measure literacy achievement fits the kind of literacy used by the children through the tasks they engage in, literacy achievement would no longer cause any serious concerns.

Fourth, children come to the classroom as unique individuals with their own unique developmental patterns and needs. The classroom teacher who participated in this study held such a belief and attempted to treat children accordingly. Findings related to focal learners' engagement in their reading-to-write activities underscore the need for differential assistance. For instance, one clear implication which can be drawn from Nancy's case is that students like Nancy need more explicit instruction of reading/writing strategies such as those related to paragraph note-taking,
summary writing, and paragraph development. Research has established that those strategies can be taught to children at this level and children can benefit from such an instruction (e.g., Loranger, 1997; Pearson & Dole, 1987). Likewise, as some students like Nancy seemed to have difficulty juggling with multiple tasks at the same time, the teacher should monitor their work progress more closely and offer assistance as necessary.

The unique nature of individual students, and their idiosyncratic ways of doing literacy, suggest that the teacher should also pay attention to students' task interpretation (cf. Flower, 1990; Many et al., 1996) so that the teacher can help ensure that the learners can benefit optimally from the task they engage in.

Fifth, the findings of this research clearly indicate that each project provides different learning experiences for students. The unique nature of individual project requires flexibilities on the part of the teacher in that she needs to be able to anticipate the unexpected to happen during the enactment of the project plan, and she equips herself with back-up plans. While this research has provided an example of a teacher's success in orchestrating her resources to accomplish instructional goals by wedding
children's interests and mandated curricular agendas, the enactment of project-based instruction cannot be taken for granted. Other teachers in different classes or programs might have different experiences. For example, Marx, Blumenfeld, Krajcik, and Soloway (1997) reported some difficult challenges faced by some teachers when implementing "Project-Based Science" (PBS). These challenges include (1) time, (2) meeting district requirements, (3) classroom management, (3) control, (4) support of student learning, (5) assessment, and technology use.

Given this context specific nature of curricular enactment, further research needs to be conducted which explores similarities and differences of how different teachers make preparations for and their enactment of project-based instruction. Results of such a study can provide valuable contributions to the field of curriculum and instruction.

Limitations of the Study and Recommendations for Further Research

This research is a case study of curriculum enactment of an informal, project-based literature program by one
teacher working together with one certain group of children in one classroom. To the extent that the study involved only one type of program, one classroom, one teacher, and one group of students, this research has limitations. One obvious limitation is inherent to the nature of teaching-learning itself, which is necessarily context specific. As such the knowledge that we learn from this study might have limited usability. To make the knowledge usable to a broader context, similar studies need to be done which focus on literacy tasks, instructional assistance, and children’s learning engagement as they occurred in other classes taught by other teachers and involve different students. These additional studies would provide useful insights to confirm or disconfirm the findings of the present research. Synthesized together, a more refined body of case knowledge may result.

Another limitation of the present study is the fact that it confined itself to only a portion of the period where the participants were in the particular class which served as the site for the study. Therefore, a longitudinal study on literacy tasks, instructional assistance and children’s learning engagement spanning several academic years but concentrating on the same group of students is
needed. This kind of study might result in a profile of children’s learning experiences across grades in the same program, which can provide a good basis for program evaluation and improvement.

Summary

In conclusion, the data revealed the active and idiosyncratic nature of children’s learning, the powerful influence of task design, the complex nature of teachers’ work, and the complexities of enacting project-based instruction. In general, students appeared to be readily and productively engaged in a literacy task when they saw some reasonable purposes or utility value in accomplishing the task; a task which was an inherent part of a larger task environment would likely encourage this engagement. Task design is important because it influences the kind of learning opportunities children can experience. As tasks do not exist by themselves, but are designed and orchestrated by teachers, teachers play an important role in establishing and maintaining instructional environments that promote or impede students’ learning engagement. To encourage students to take an active role in their learning, the teacher in
this study (a) created literacy tasks which were an integral part of a larger task environment; (b) explained purposes or utility value of the task; (c) suggested ways of going about accomplishing the task; (d) provided guided practice before assigning students to independently work on a novel task in a novel context; (e) provided one-one-conference opportunity where students could get personalized assistance, including clarification of task requirements, demonstration of strategy use and feedback on students' on-going work. Students in this class participated in deciding on what they learned, how they learned it, and what means to use to achieve their learning goals. Data on their literacy engagement and literacy artifacts indicated that they engaged in reading, writing and discussing extended texts for multiple purposes in various genres.

While this study has its unique contribution to the field of literacy education which needs data-based, finely-grained descriptions of integrated-curriculum enactment, other similar studies need to be done to enable construction of more refined and solid body of case knowledge on this curricular enactment.
APPENDIX A: Statement of Philosophy
STATEMENT OF PHILOSOPHY

This statement of philosophy is an effort by the educators of Barrington Elementary to state the basic beliefs that guide our day-to-day relationships with children and that direct us in setting educational goals within the overall pattern of the Mission Statement of the Upper Arlington City Schools. Barrington is an unique elementary school which offers parents and students a choice between two approaches to learning. The following pages explain in model and narrative form the educational philosophies of both approaches. The options offered in this school demonstrate our commitment to alternatives in education and creative teaching-learning styles.

An administration which advocates choices in education provides a positive atmosphere where educators and students function in harmony. Support personnel provide services which ensure maximum success for educational experiences. Included in our services are teachers for music, art and physical education. Our library/media center offers a wide selection of books and A-V materials with a certified librarian who facilitates library services. Individual differences in learning needs and styles are recognized in the classroom with supplemental services by the teachers, guidance counselor, school psychologist, speech therapist and other teachers and tutors for gifted and learning disabled students. Two TIES (Teaming for Individualization in the Elementary School) people act as resources for teachers and students and assume some teaching duties. Volunteers, P.T.O. and support from the community add to the richness of our learning environment.

In summary, the educational philosophies at Barrington reflect the high standards of education set forth by teachers, administrators, and parents of our community. We recognize, respect and value the philosophical differences and likenesses in the two approaches to learning in our school. As educators we are united in our hope that each child at Barrington will have a positive self-image and will have fully developed academic and social skills appropriate to his/her life stage. As a result the student will be ready to successfully accept responsibilities for academic, social and civic expectations at the next level of education.
INFORMAL PROGRAM PHILOSOPHY

The Informal Program is a teacher-child centered discovery approach to learning. It embodies a curriculum that addresses the needs and concerns of children in an environment that is positive, respectful and trusting. The dynamic relationship among teacher, child, curriculum and environment creates a program in which teacher and child journey together into a meaningful event for knowledge. The Program is grounded in research and theory from the fields of child and language development, and educational philosophy.

A. THE TEACHER

The teacher is responsible for establishing and maintaining a warm learning environment that focuses on the learner. He or she has knowledge of children and is aware of their interests, strengths, weaknesses, experiences, and stages of development. The teacher's role is complex and includes:

1. Modeling
The teacher models:
... curiosity
... the excitement and fun of learning
... respect for self and others
... appreciation of children's work and efforts
... creativity
... responsibility.

2. Structuring and Facilitating
The teacher:
... structures the environment, time, ideas and materials to facilitate learning in the classroom while remaining open to children's input
... supports, challenges, discussions, and interprets attempts made by the child, and helps him or her reflect on, revise and expand meaning
... involves learners in developing and expressing their own ideas
... uses collective strategies to extend children's thinking and language
... works with students to "uncover"

B. THE CHILD

The child searches for personal meaning in all he or she does and takes an active part in constructing his or her own learning. Each child is:

1. Self-motivated
Children:
... are intrinsically curious
... initiate their own learning
... plan, implement, question, reflect, and evaluate

2. Unique
Children:
... have different developmental timetables for learning
... have different needs emotionally, socially, and intellectually.

3. Responsible
Children:
... take increasing responsibility for their own learning as they mature
... grow in ability to use time, space, and materials appropriately

4. Interactive
Children:
... learn through interaction with others and the environment
... receive support and recognition of efforts and achievement through ongoing interaction with others, group sharing, and display of their work
... participate in peer tutoring, conferring, and collaborative problem solving
... order and formulate their thinking through communicative acts

C. CURRICULUM

The Informal Curriculum is a literature based/language arts approach to learning. It is organized around broad topics or themes that contain a wide spectrum of content and concepts which foster development and language development. The Informal Curriculum is dynamic, evolving, and integrated. It encompasses planning, resources, implementation, and evaluation.

1. Planning
... stems from a web of possibilities centering around a theme
... makes connections and offers open ended ideas for study
... integrates all subject areas
... involves both teacher and children
... provides the structure from which children initiate/generate their own learning.

2. Resources
... include a vast number and variety of materials, books, field trips, community resources, parent volunteers, children, art supplies, and other media materials, as well as curriculum guides and tests.

3. Implementation
... involves brainstorming, discussion, monitor choices, flexible work time and/or specific teacher-directed activities
... occurs through units of study and indepth projects providing the context in which skills and concepts are introduced and utilized.
INTERNAL PROGRAM PHILOSOPHY

Curriculum—continued

4. Evaluation
   ... is a continuing process.
   ... is concerned with the growth of individuals.
   ... focuses on qualities that are important in an area of work.
   ... is used to guide further instruction.
   ... is engaged in by self, peers, whole class and teacher.
   ... includes both process and product.
   ... is achieved by responding to student actions and work with constructive comments.

5. Environment
   The informal classroom is a changing, literate environment that stimulates thinking and nurtures learning and creativity. Classes are organized heterogeneously into “family groups.” A wide range of work goes on simultaneously in a relaxed atmosphere. The room is active but orderly. Positive attitudes toward self, others, and school are fostered. The dimensions of the environment include materials, equipment, arrangement of space, and management of time.

1. Materials and Equipment
   ... provide children and teachers opportunities to approach, to respond to, and to record their learning experiences in a variety of ways.
   ... consist of display of children’s work, collections, easel books, and a wide assortment of art media.
   ... are organized and stored for children’s easy access.

Environment—continued

2. Arrangement of Space
   ... provides flexible places for individuals and small groups of work.
   ... designates areas for total group meetings.
   ... creates space for projects, and children’s work to be aesthetically displayed.
   ... divides the classroom into learning centers or areas.
   ... encourages interaction among children.
   ... provides comfortable places for reading and sharing.

3. Management of Time
   ... allows for flexibility.
   ... encourages the pursuit of studies and interests in depth.
   ... provides opportunities for literature throughout the day.
   ... enables children to explore meanings, to ask questions, to listen, to make connections.
   ... allows children to share experiences and work with the class.
   ... provides long periods of uninterrupted work time.
   ... allows for class discussions and group meetings that focus on achievements and concerns of the group.
APPENDIX B: Learning goals
Dear Parents and Students,

Please spend some time together looking over the work, grade cards, and self-assessments included in this portfolio. Check last quarter’s goals and discuss whether those goals have been met. Then set three or four attainable goals for the next quarter. Goals from last quarter can be continued if they were helpful or were not fully realized.

After discussing my portfolio and grade card with my parent(s), I have decided to set these goals for the third quarter:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

I will do my best to complete these goals.

Signed,

___________________________(student)

I agree that these are good goals that my student can complete and should work on for next quarter.

Signed,

___________________________(parent)
APPENDIX C: Sample of collaborative work
Columbus Museum of Art  
480 East Broad Street  
Columbus, Ohio 43215

January 25, 1996

To Whom It May Concern:

We read Elijah's Angel by Michael Rosen. We really enjoyed the book and we wanted to see Elijah Pierce's work. Our teacher visited the art museum to see what work of Elijah's is on display. She only found three pieces. She learned that you have 300 pieces in your possession. She was given the video tape and slides. We watched the video tape "Elijah Pierce, Woodcarver," and it showed him doing his work, barbering and woodcarving. We still wanted to see more of his work. He is from Columbus and world renowned.

We think that his work shouldn't be locked up in a warehouse. How can we enjoy it if it's packed up? Could you put more works on display? Could some other works be loaned out to other museums or places around Columbus, like Franklin Conservatory or the Wexner Center?

Thank you for your consideration. Please reply as soon as possible.

Sincerely,

Jesse Allen  Sara Ball  Lauren Haun
Nick Johnson  Robbie Sturges  Wes Milks
Samantha Smek  Dan Halsey  Jon Kopech
LIST OF REFERENCES


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