The Development of Literate Potential
Potential in Literature-Based and Skills-Based Classrooms

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Abstract

This study examined young children’s developing understanding of written discourse in two instructional settings: literature-based and skills-based. Forty-one first graders were each requested to dictate two “written” stories for others to read at the beginning and end of the school year. The 82 texts were analyzed for their cohesive harmony, conformity to the socioculturally-codified genre conventions, and use of specific written language features. Quantitative analysis revealed statistically significant increases in cohesion and genre scores, but only marginal gains in the written language features measures. Further, the development of such written discourse knowledge was not significantly impacted by the instructional context. Qualitative analysis revealed that the children’s texts demonstrated impressive advances in the written mode of organizing and communicating information to others, despite evidence of traces of oral discourse patterns and immature control over diverse genres. These findings are discussed in light of relevant literacy research and practice.

Literacy is not a natural outgrowth from orality. Becoming literate in our society requires that children learn to take control over the written mode of communication. In order to do this, they must come to terms with certain features of written discourse: its sustained organization, its characteristic rhythms and structures, its distinctive grammar, and its disembedded quality (Kress, 1994; Olson & Torrance, 1981; Wood, 1998). While home and community are important to the development of a literate mind, it is the school that is commonly considered the most important site for children’s literacy development. As Freedman (1985) noted, literacy is “largely learned in school rather than at home” (p. x).

The significance of formal schooling to developing literacy foregrounds a pedagogical issue of immediate consequences to children. That is, what instructional approach is most effective in fostering children’s literacy development? In recent years, with the popularity of literature-based instruction, literacy educators have become increasingly interested in its effectiveness as compared to the more tradi-
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The present study describes changes and development in first graders' understanding of written discourse in two instructional settings: literature-based and skills-based. Three research questions guided the study: (a) What do children learn about written discourse in school? (b) Does the development of written discourse knowledge comprise a significant part of the school learning experience? and (c) What is the role of instructional context in developing children's written discourse knowledge? Before describing the study further, I shall provide a brief discussion of three fundamental features of written discourse: autonomy, stability/predictability, and distinctive grammar.

Features of Written Discourse

There is a persisting interest among language and literacy educators in identifying features of written discourse, with the ultimate aim of describing precisely what has to be learned in terms of literacy in reading and language arts classrooms (Derewianka, 1990; Hammond, 1990; Martin, 1989). Although scholars like Gee (1996), Delpit (1988), Cope and Kalantzis (1993), and Roberts and Street (1997) see these features as constituting a style that is designed to exclude the marginalized outsiders and to enhance the status of powerful insiders, much more needs to be known about academic textual practices before useful evaluations can be made. Nevertheless, whatever the intention, the features of written discourse certainly constitute a barrier with which literacy teachers must help their students deal.

One feature of written discourse is its ‘autonomy’ (Chafe, 1982; Olson, 1977; Tannen, 1982). Unlike oral discourse that is used in rich, purposeful contexts where communication is anchored to a specific time/place and where responsibility for mutual understanding is shared between the speaker and listener, written discourse is less dependent on the spatial and temporal situation in which it is produced. It is minimally dependent upon simultaneous transmission over non-verbal channels (e.g., gesture, facial expression) and the contribution of background information from the receiver. Instead, readers rely to a much greater extent on words alone as cues to meaning. As such, written discourse has often been characterized as “decontextualized” (Vygotsky, 1962), “disembedded” (Donaldson, 1978), or “constitutive” (Halliday, 1989).

Because of the autonomous or decontextualized nature of written discourse, children should have at their disposal a repertoire of linguistic resources for creating intra-textual links and references (Chapman, 1983; Irwin, 1986). One such linguistic resource is cohesion. Halliday and Hasan (1976) have identified three main types of cohesive devices as grammatical (e.g., pronouns, substitution, ellipsis), lexical (e.g., repetition, synonyms, antonyms, hyponyms, hypernyms), and logical (e.g., conjunctions).

Part of the process of becoming literate involves learning to handle these cohesive devices appropriately so that children can successfully calibrate cohesive relations within the text. In the initial stages of learning to construct autonomous texts, children tend to draw upon linguistic resources gathered principally through oral, everyday speech. For example, they imitate in writing the oral telling of a story, where their audience is immediate and where the audience and the speaker can interact vis-à-vis to clarify a given point of confusion or misunderstanding. Young children also have difficulty sustaining an endophoric text for an invisible audience. For example, they sometimes use pronouns to denote objects or persons that are not clearly referenced within the linguistic text proper. Further, they have difficulty conceptualizing what information is and is not available to a non-present reader who does not share the immediate context of discourse production. They also find it difficult to recall information they previously provided in the text. In these cases, cohesive problems have been attributed to limitations in children’s linguistic resources (Yde & Spoolder, 1990) and cognitive capacities (Clark & Sengul, 1979; Stoddard, 1991). Whether differential pedagogical practices effect differential outcomes in helping young children overcome these potential difficulties of written discourse production is, therefore, a question that deserves exploration.

Another feature of written discourse is its stability and predictability. This means that different text types (genres) consist of somewhat different sets of relatively stable constellations of text-level features that adhere to certain cultural conventions, that are appropriate for particular social and cultural occasions, and that accomplish specific communicative intents (Kamberelis, 1995; Swales, 1990). Although genres, as staged, goal-oriented social processes (Christie & Martin, 1997), do evolve and expand over time in response to changes in social life and cultural world view, each has a relatively small set of fairly durable and conventionalized compositional structures. These structures provide predictable expectations for particular genres, as they index the particular contexts in which particular meanings are constructed and particular functions are performed (Bakhtin, 1986; Kress, 1989).

Knowledge of genres is critical for the development of communicative competence, which involves the encoding of messages in fairly specific and predictable ways within particular communicative contexts. Scholars (Chapman, 1994; Cope & Kalantzis, 1993; Kamberelis, 1998) have suggested that gaining knowledge of diverse genres and the typified rhetorical situations that constitute and are constituted by these genres is a primary developmental task for young children as they learn to read and write. Thus, it is important to examine whether different peda-
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Researchers have identified several factors that contribute to children's development of literacy skills. These factors include the number of books at home, the amount of time spent reading, and the social context of reading. The role of the classroom environment in fostering literacy development has also been emphasized. A well-equipped classroom can provide children with opportunities to engage in meaningful reading and writing activities.

The Instructional Context

The literature-based classroom teacher had taught for six years in the elementary school. She had a bachelor’s degree in elementary education, in addition to over 20 hours of postgraduate work in reading/literacy education. She was actively involved in a school-university collaborative initiative, the aim of which was to reform the school’s reading/language arts program by moving it from the traditional skills-oriented, basal-based instruction to the literature-based instruction.

The classroom was rich in print and print-related activities. The room was divided into several centers or work stations, including group sharing corner, listening center, writing center, conferencing area, computer center, project area, math center, and art center. It was equipped with a classroom library that contained many children’s books, including trade books, big books, information books, and reference books. The room was also decorated with child-authored stories and messages (e.g., shape books, mini books, cards, letters, announcements), group-authored big books, chart stories, information charts, number chart, and record keeping lists. Adult-authored messages (e.g., notes, cards, letters, invitations, announcements), directions (e.g., classroom rules, use of centers, activity directions), scheduling (e.g., daily schedule, calendar, lunch time, classroom helpers), and word cards “littered” the walls and poster boards. Location of centers, objects in the classroom, containers for children’s belongings, coat closets, and captioned drawings were clearly labeled. Materials for writing (e.g., paper, chalkboard, blank chart paper, blank notebooks, pencils, crayons, markers, glue), reading (e.g., read-along tapes and books, computer software, self-selected storybooks), and playing (e.g., mouse patching game, magnet numbers, alphabet games) were provided in designated areas accessible to children.

Method

Participants

Participants included 41 children from two intact first grade classrooms in a U.S. elementary school. The classrooms were selected through a triangulation process that involved participant observation (Spradley, 1980), observation checklist (Hollingsworth, Reutzel, & Weeks, 1990), beliefs survey (Deford, 1985), and semi-structured interviews (Briggs, 1986). All children were native speakers of English. There were 21 children, all European Americans, in the literature-based classroom. Of these, 12 were girls and eight received free or reduced-price school lunch. In the skills-based classroom, there were 20 children, among whom 10 were girls, 16 European Americans, three African Americans, one Hispanic American, and five received free or reduced-price school lunch.

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The classroom was rich in print and print-related materials. The wall space was covered with A-Z alphabets, vowels and consonants, posters, slogans, photographs, and children’s work (e.g., phonics worksheets, drawings, stories). In one corner of the classroom stood a medium-sized bookshelf stuffed with children’s storybooks and magazines. On a table next to the bookshelf were several small cupboard boxes where writing materials (e.g., pencils, crayons, papers, markers, glue, scissors) were stored. Students’ desks were arranged in rows and columns in an orderly fashion.

Each day the teacher conscientiously read storybooks aloud to the students as a part of the literacy instruction routine. Other modes of reading such as shared reading, partner reading, and sustained silent reading were used mostly to fill time slots during the transition of major school and classroom activities. There were several centers in the classroom, including a book reading corner where students sat and read books after finishing other assigned seat work; a skills center decorated with word walls and phonics charts where the children engaged in phonics and other skills practice; a writing center where the children copied or traced alphabet letters and words for handwriting practice or used teacher-selected words to make sentences; a conference center where the teacher instructed individual students who had problems with phonics; and a computer center where phonics skills were practiced and reinforced through the mastery learning sequence using programs such as KidWorks 2, Bailey’s Book House, and My First Incredible, Amazing Dictionary.

Although children’s storybooks were used to teach reading and language arts, they were heavily supplemented with basal materials. The literature was used primarily as a vehicle to practice the skills typically found in the basal reader, rather than as a source for reading enjoyment. In other words, literature books were used as a springboard for teaching decoding skills, vocabulary, grammar, and comprehension strategies. The teacher often developed phonics activities out of words, sentences, or concepts in children’s books. These activities included phoneme matching, blending, phoneme isolation, sound-to-symbol matching, and sound manipulation.

A typical daily schedule was devoted to reading skills lessons selected from a published scope and sequence chart of reading skills. Each skill/lesson was explained by the teacher and was followed with the assignment and completion of worksheets designed to reinforce the lesson. For example, the “morning message” activity was focused on punctuation, capitalization, and occasionally on sequencing. The station activities were all geared towards phonics practice. Examples of her daily station activities follow:

(1) Cut out the letters for each spelling word and glue them next to the word.
   a) ride    b) wish    c) nice    d) fun
   e) take    f) trip    g) wear

(2) Read each sentence. Circle the two words that should begin with capital letters. Write the words correctly on the lines.
   a) my pet rabbit is named snowball. _______   _______
   b) what color do you think snowball is? _______   _______
   c) my friend, eric, has a duck. _______   _______
   d) his duck’s name is goldy. _______   _______

(3) Fill in the blanks with e, o, or u.
   a) A rabbit can h _ p.
   b) A h _ n sat on some eggs.
   c) A d _ ck was in the water.
   d) A pig was in the m _ d.
   f) A rat was on my d _ sk.

(4) Copy the sentence “Magnets never miss Muffin’s mouth” in print in notebook.

(5) Cut and paste short o words on Olly’s box.
   stop      mop      wig      log      home      doll
   clock      cot      hat      shot

Following is a sample morning literacy lesson schedule:

8:40 a.m. Business (pledge, lunch count, attendance, etc.)
9:00 a.m. The teacher instructed children on the use of “-ed” inflection in verbs.
9:15 a.m. Students engaged in individual worksheet projects. Some were asked to copy ten spelling words that begin with /th/ (e.g., then, this, them, there, this, that) five times in their workbooks. Some practiced morphological analysis by breaking compound words like “something” into two parts: some-thing. Some worked on computers to complete a comprehension mastery learning test (all multiple choice questions) on a story read on a previous day. Some practiced phonics exercises on the computer. The teacher closely monitored students and gave assistance when needed.

9:40 a.m. Class convened as a group. Students sat on a rug in a shared reading corner in front of the teacher. The teacher first engaged students in a conversation about their personal experience over the weekend. Then, she picked a few students to construct a sentence using words like “Tuesday,” “yesterday,” and “tomorrow.” Students were later asked to deconstruct words like “Monday” into two parts: Mon-day. Next, the teacher shared an information book The Carrot Seed. She first activated students’ prior knowl-
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edge by talking about various kinds of beans and then constructing a Venn diagram to show similarities and differences among the beans. Finally, she read the book aloud while students listened attentively. Occasionally, she asked students to make predictions by looking at the pictures.

10:10 a.m. Bathroom break

10:20 a.m. All students as a group worked on phonics activities. They were requested to clap their hands as they read the following “th” words with the teacher: then, then, there, thing... Next, students were asked to generate a sentence for each word.

10:35 a.m. The teacher lectured on diphthongs /ie/, /ee/, and /ea/. Students were asked to come up with words that bear these spelling patterns.

10:50 a.m. Students were asked to draw a picture for the words they generated above with such diphthongs as /ie/, /ee/, and /ea/. Then they colored the pictures in whatever color they liked. When it was done, they went to see the teacher and read those words to her individually.

11:20 a.m. Class got ready for lunch recess.

Procedures

The researcher spent a few weeks in the target classrooms as a participant observer prior to actual data collection, the purpose of which was to establish rapport with the children. After the children became sufficiently familiar with the researcher, data collection commenced. Each child was seen individually at two sessions, one at the beginning (August) and the other at the end (May) of the first grade. If a child seemed tired or distracted, the session was terminated and rescheduled.

At each session, the researcher engaged the child in an informal conversation about his or her personal experience. During the conversation, an oral monologue story emerged. The researcher commented on the oral tale’s interest and suggested that some other children would like to read about it. The researcher then invited the child to assume the role of a writer (“like your favorite book author”) and dictate that same oral tale as a book-like story, i.e., as an autonomous text written for other children to read. The dictation of a written text is a fundamentally different task from oral storytelling in that the former requires that the child draw on only linguistic resources to make a coherent text, whereas in the latter the child can draw on not only verbal but non-verbal clues (e.g., gesture, intonation) to construct meaning. In fact, the request for a retelling of a face-to-face oral story as an autonomous text written for others to read defines a new context in which field (topic of the story) remains the same, but changes occur in tenor (from interactive listener to absent/invisible readers) and mode (from oral to written). In order to comply with the request, the child must recognize the unique differences between oral and written discourse and make appropriate linguistic adaptations in cohesion patterns, genre structure, and wording choices, among others.

During the dictation, the researcher acted only as scribe, offering no help beyond simply recording the child’s words, re-reading the text back to the child, and inviting edits. This dictation protocol was considered appropriate for emergent writers because it freed them from the mechanical demands of writing (i.e., spelling, punctuation, handwriting) and, as a result, allowed their attention to be more fully devoted to the focal constructs of the study, that is, discourse level concerns such as purpose, word choice, syntax, textual connections, thematic development, organization, and clarity. Recent studies of the writing process (e.g., Gundlach, 1981; Jacobs, 1985; Sipe, 1998) have turned up evidence in support of this hypothesis. Other empirical studies (Hidi & Hildyard, 1983; Kamberelis, 1998; Pontecorvo & Zucchermaglio, 1989; Scardamalia, Bereiter, & Goelman, 1982) have implicated the need for or suitability of this data collection procedure in emergent writing research.

Linguistic Analysis

Each dictated text was analyzed linguistically in terms of three research-based constructs: cohesion, genre, and written language features. In all linguistic analyses, there were three experienced scorers. To ensure consistency across all analyses, the researcher scored all of the data sets. Two other scorers each scored half of the data sets independently and then cross-checked with the researcher. Any disagreement was discussed in light of relevant research/theory and resolved to 100% agreement. The researcher took careful notes of points of disagreement and resolution, and applied these sometimes-hard-to-reach decisions to later cases involving similar situations.

Cohesion analysis. For cohesion analysis, Hasan’s (1984) discourse model of cohesive harmony was used. Cohesive harmony is a multifunctional and more powerful concept than Halliday and Hasan’s (1976) original conception of cohesion because it captures the “echoing of functional relations” within the text. Specifically, a five-step procedure was instituted. First, the text was parsed into modified t-units. Second, each parsed text was lexically rendered by eliminating all function words and retaining only content words. Verbs were changed into their root forms. Each coreferential or coclassificatory device was replaced with its referent (i.e., the word or phrase that serves as its interpretive source) or else categorized as ambiguous when an appropriate referent could not be located in the linguistic text. The ambiguous linguistic tokens were automatically eliminated from chain membership and were never involved in chain interaction (see step 4). What remained were unambiguous content words (i.e., nouns, verbs, adjectives, and adverbs), which were used to calculate cohesive harmony index (see step 5).

Third, noun tokens were analyzed for semantic relationships. Those determined to be semantically related through the identity or similarity bond were placed in the participant chains. Verb tokens were grouped into one of the six process categories — material, mental, verbal, behavioral, relational, existential
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(Halliday, 1994) — and then recorded in the appropriate process chain. Any single noun or verb tokens without associated tokens were called peripheral tokens, which, like ambiguous tokens, were also recorded separately and never figured into chain interactions. Fourth, functional roles (e.g., actor, sensor, behaviour, existent, phenomenon, location) (Halliday, 1994) were assigned to the noun tokens based on an analysis of the relationship between the verb process and the noun in their respective t-units. When the same functional roles were given to two or more tokens within the same participant chain across two t-units with the same verb process, a cohesive harmony interaction was said to have taken place. Fifth, the number of tokens involved in chain interactions was divided by the total number of tokens in the entire parsed text, yielding a cohesive harmony index.

Genre analysis. As noted earlier, genres are staged and standardized ways of organizing discourse for given social purposes. A synthesis of research (e.g., Chapman, 1994; King & Rentel, 1981; Langer, 1985; Martin, 1984; Newkirk, 1987) suggests that children’s writing typically falls into two broad genres that include subcategories — expressive (e.g., recount, narrative) and factual (e.g., report, description, procedure, explanation, exposition) — and that children would produce several different types of texts in response to the directive to write a story (as they tend to consider any text, be it expressive or factual, as a story). Each of these genres serves a particular purpose and has its distinctive structural and lexicogrammatical features (Derewianka, 1990; Martin, 1989). For example, a recount text retells events for the purpose of informing or entertaining. Its focus is on a sequence of events, all of which relate to a particular occasion. It generally begins with an orientation, giving the reader the background information needed to understand the text (i.e., what happened, who was involved, where it happened, when it happened). Then it unfolds with a series of related events ordered in a chronological sequence. At various stages there may be some personal comment on the incident. It is usually sequenced temporally, often in the past tense.

A narrative text is a recount with a twist. Its basic purpose is to entertain, to amuse, or to instruct. The focus of the text is on a sequence of events. It usually begins with an orientation that introduces the characters, establishes the atmosphere, indicates the “when” and “where” of the event, and sometimes foreshadows the action. The story is developed by a series of events, during which some sort of complication or problem arises. Then, a partial or full resolution of the complication is brought about. Characteristic language features of the narrative genre include use of specific individual participants, the past tense, temporal conjunctions, material verb processes in the complication and resolution stages, and relational and mental verb processes in the orientation stages.

Unlike the “expressive” genres, other genres are of the “factual” type. A procedural text is a step by step account of how to go about doing something. It generally begins with a statement of goal, followed by an ordered series of steps. It centers on generalized human agents such as ‘you’or ‘the experimenter,’ uses the simple present tense, links the steps in the procedure with temporal conjunctive relations, and mainly uses material verbs. Unlike recounts which are event-focused, procedures talk about people, places and things in general terms. A report text makes general, non-specific statements about a class of things. It usually starts with a general classification which locates the phenomenon, followed by successive elements that contribute to a description, such as types, parts, qualities, uses or habits and so on. The focus is on generic participants, without temporal sequence and mostly using the simple present tense. A description text is, in fact, an instance of report. However, it is somewhat different from report in that it is the particular individual, place, or thing, rather than the whole class of things or people, that is characterized or described.

An explanation text gives an account of how something works or reasons for some phenomenon. It has a “process” focus rather than a “thing” focus. It usually starts with a general statement about the phenomenon in question, followed by a sequence of explanatory statements. It typically uses generalized participants, timeless present tense, and material verbs. An exposition text is concerned with “the analysis, interpretation and evaluation of the world around us” (Derewianka, 1990, p. 75). In such a text, the writer advances a point of view, judgment, or thesis, often accompanied by some background information about the issue in question. Then the author presents evidence to support or refute the thesis. Finally, there is an attempt to sum up the position in light of the argument presented. Often, the simple present tense is used in the text.

Because genre is a construct that derives from and encodes the functions, purposes and meanings of particular social occasions, becoming literate implicates learning the conventionalized forms, demands and potentialities of different genres such as those described above. It follows that an evaluation of children’s written discourse potential requires an examination of whether they have acquired these “fixed, formalized, and codified” (Kress, 1994, p. 11) genre conventions. Accordingly, each text was evaluated based on the following four textual features for each genre: (a) schematic structure (whether all ‘obligatory’ structural elements are present); (b) participants (whether participants in the text are appropriately general or specific); (c) verb process (whether the verbs used are appropriate for the experience described); and (d) tense (whether the verb tense is properly manipulated). One point was awarded for conforming to the genre conventions in each of these four categories. Thus, each text can earn a maximum of four points. A non-text, which contains less than two independent clauses, earns zero point. In the case of a hybrid text, where the child mixes more than one genre, a total score was computed for each of the genres present in the text. A final score for the text was then calculated by averaging the scores of all genres present in the text.

Written language features analysis. The analysis of written language features was guided by earlier work in linguistics (e.g., Chafe, 1982, 1985; Halliday, 1989; Tannen, 1982, 1985) and emergent literacy (e.g., Cox, Fang, & Otto, 1997; Purcell-Gates, McIntyre, & Freppon, 1995). Specifically, each text was examined for evidence of the following twelve lexical and syntactic features that have been identified as characteristic of written discourse.

1. Formulaic opening or ending: use of phrases such as once upon a time or they lived happily ever after that are often associated with a particular genre.
2. Adverbial clauses: clauses serving an adverbial function, including temporal (e.g., before, after, until), conditional (e.g., if), causal (e.g., because, since),
concessive (e.g., although), manner (e.g., as), purposive (e.g., in order to, so that), and resultive (e.g., so, such that).

3. Complement clauses: clauses introduced by that after a verb (e.g., The king suddenly knew that he had found his true love.).

4. Appositive phrases: noun phrases used to elaborate a preceding noun (e.g., I ate a kid’s meal, a hamburger and fries.).

5. Literary sounding words/phrases: words and phrases that are typically used in writing and sound out of place in speaking (e.g., She had made her way home. He was entranced by the gift.). Formulaic openings and endings typically used in written narratives were not counted as instances of this feature.

6. Preposed present/past participles: verbs used syntactically as adjectives (e.g., a vanishing island, the broken bone). Terms that have become lexicalized with their meanings frozen (e.g., my coloring pen) were not counted as instances of this feature.

7. Postposed present or past participles: gerunds or verbs in passive voice form used to modify a preceding noun (e.g., I flipped off the sled rolling down the hill. She found her arms wrapped around a fruit tree.).

8. Unusual syntax: sentence structures that are more typically used in literary texts than in daily oral language (e.g., Overcome with grief, the girl collapsed on the ground. The more he marveled at its beauty, the more determined he became to find the woman to whom the shoe belonged. Hardly did he finish the cake.).

9. Relative clauses: clauses introduced by words such as which, who, and that to modify a preceding noun (e.g., He sold it to a merchant, who presented in turn to the king.).

10. Series of attributive adjectives: a series of adjectives arranged in proper order to describe an upcoming noun (e.g., the grouchy, wet, tired fish).

11. Sequence of prepositional phrases: prepositional phrases chained in a sequence such that the informational structure is condensed syntactically (e.g., She left the ball with tears in her eyes. We had the water with ice and lemon in it.).

12. Nominalization: expressing a verb process as a “thing” or participant such that the informational unit is condensed. For example, instead of saying He disappeared yesterday and his mom worried about him, nominalization transforms these two clauses into one, His disappearance yesterday worried his mom. Other examples are: we understand becomes our understanding (nominal group), how it began becomes its origins (nominal group).

Two ratio scores were calculated here. The first is the written language features occurrences score (WLFO), computed by dividing the number of times a child uses features specified above as written by the total number of t-units in the text. The second is the written language features breadth score (WLFB), computed by dividing the number of the written language features categories that were present in the text over the total 12 written language features categories described above.

### Results

#### Quantitative Findings

Consistent with the recent recommendations by the American Educational Research Association (Thompson, 1996) and the American Psychological Association (APA, 1995) regarding the reporting of statistical significance testing, decisions concerning the acceptance or rejection of various null hypotheses associated with the study’s design were based on two indices: a p value and an index of effect size (eta square, $\eta^2$). A small p-value in combination with a large index of effect size was considered sufficient evidence for rejecting the relevant null hypotheses. In line with Olejnik’s (1984) suggestion, an effect size of 0.13 was considered large enough for this study. Further, a p value of 0.05 or less was considered small.

Based on an examination of stem-and-leaf plots and normal probability plots for the response variables, it was judged that the data approximated normal distributions. Descriptive statistics (means and standard deviations) for the dependent variables are presented in Table 1.

For the cohesion measure, repeated measures ANOVA revealed statistically significant time effect, $F(1, 39) = 15.37, p < 0.00, \eta^2 = 0.28$. This means that over the course of the school year, the first graders developed considerably greater expertise in constructing sufficiently autonomous and more cohesive texts. There was no statistically significant “time x instructional context” interaction effect, which means that the growth in the literature-based group’s cohesion knowledge was not reliably different from that in the skills-based group’s.

For the genre measure, repeated measures ANOVA also revealed a statistically significant time effect, $F(1, 39) = 7.29, p < 0.01, \eta^2 = 0.16$, but failed to support a statistically significant “time x instructional context” interaction effect. This indicates that the children were incorporating considerably more conventionalized fea-
Table 1. Means (M) and Standard Deviations (SD) of Cohesion, Genre, and Written Language Features at the Beginning and End of the School Year

<table>
<thead>
<tr>
<th></th>
<th>Literature-Based</th>
<th>Skills-Based</th>
<th>Entire Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning (M)</td>
<td>End (SD)</td>
<td>Beginning (M)</td>
</tr>
<tr>
<td>Cohesion</td>
<td>0.52 (0.26)</td>
<td>0.74 (0.16)</td>
<td>0.57 (0.19)</td>
</tr>
<tr>
<td>Genre</td>
<td>3.03 (0.85)</td>
<td>3.55 (0.38)</td>
<td>3.23 (0.80)</td>
</tr>
</tbody>
</table>

Written Language Features

a) Occurrences (WLFO)
   - Beginning (M): 0.05 (0.12)
   - End (SD): 0.14 (0.17)
   - Beginning (M): 0.12 (0.19)
   - End (SD): 0.15 (0.17)
   - Beginning (M): 0.09 (0.16)
   - End (SD): 0.14 (0.17)

b) Breadth (WLFB)
   - Beginning (M): 0.02 (0.04)
   - End (SD): 0.09 (0.10)
   - Beginning (M): 0.08 (0.13)
   - End (SD): 0.08 (0.10)
   - Beginning (M): 0.05 (0.10)
   - End (SD): 0.09 (0.10)

atures of genre in their texts at the end of the school year than they did at the beginning of the school year. However, the instructional context was not a significant factor in accounting for the differential gain scores in genre between the literature-based and skills-based groups.

Additionally, an analysis of the types of textual genre composed by the children over the school year showed the following patterns. Overall, five genre types were found: recount, narrative, description, explanation, and exposition. There were also a few hybrid texts that featured a conglomerate of two or more genre types, usually a mix of recount and description. Two children dictated non-texts, meaning that their dictation was less than two independent clauses. The distribution of textual genres by the instructional context is shown in Table 2.

It is clear from Table 2 that the children composed predominantly recount texts during the school year. For the entire sample, at the beginning of the school year, 30 out of 41 texts (73%) composed were of the recount genre; at the end of the school year, 26 out of 41 texts (63%) composed were recounts. The decrease in the number of recount texts during the school year was accounted for by a concomitant increase in the number of description texts. At the beginning of the school year, four out of 41 texts (10%) belonged to description; at the end of the school year the percentage climbed up to 22% (9 texts). On the other hand, however, the number of hybrid texts decreased by half, from 12% (5 out of 41) at the beginning of the school year to 5% (2 out of 41) at the end of the school year. Other genre types (narratives, explanations, and expositions) were few and far between.

Similar patterns were found in individual classrooms. In the literature-based classroom, at the beginning of the school year, 16 out of 21 texts (76%) were recounts and three texts (14%) were descriptions; at the end of the school year, 13 texts (62%) were recounts and five texts (24%) were descriptions. In the skills-based classroom, at the beginning of the school year, 14 out of 20 texts (70%) were recounts and one (5%) was description; at the end of the school year, 13 texts (65%) were recounts and four (20%) were descriptions. Another notable difference between the two classrooms is that the number of hybrid genre texts increased in the literature-based classroom from one to two during the year, but decreased in the skills-based classroom from four to zero.

Finally, as for written language features, repeated measures ANOVA revealed statistically non-significant time effect for both the occurrences (WLFO) and breadth (WLFB) measures. Nor was there a statistically significant “time x instructional context” interaction effect for either WLFO or WLFB. This suggests that the children did not demonstrate significant growth in their knowledge of the lexical and syntactic features of written language and that the pedagogical context did not have a significant impact on the development of such written discourse knowledge.

Qualitative Findings

Because of the complementary nature of different research paradigms (Fang, 1995), qualitative analysis of children’s texts was also conducted to illuminate further the quantitative findings. In this section, I shall provide an in-depth analysis of the dictated-for-others-to-read texts composed by two average children, Tim (a seven-year-old boy from the skills-based classroom) and Dako (a six-year-old boy from the literature-based classroom). With these two case studies, I hope to shed light on the nature and patterns of linguistic and cognitive development typical of both children’s peers. Their four texts are presented below.

Table 2. Distribution of Genre Types at the Beginning and End of the School Year

<table>
<thead>
<tr>
<th></th>
<th>Literature-Based</th>
<th>Skills-Based</th>
<th>Entire Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning (M)</td>
<td>End (SD)</td>
<td>Beginning (M)</td>
</tr>
<tr>
<td>Non-Text</td>
<td>1</td>
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</tr>
<tr>
<td>Recount</td>
<td>16</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Narrative</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Description</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Procedure</td>
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</tr>
<tr>
<td>Explanation</td>
<td>0</td>
<td>0</td>
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<td>Exposition</td>
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<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hybrid</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Tim

1. We went to King’s Island and Indiana Beach and old Indiana Water Fun Park. And we went to White Sox baseball game. And that’s my story. (beginning of year)

2. I went to the bug bowl on weekend. And I ate a grasshopper. And then I ate some crabmeat. There is a railing filled with cockroaches. I almost got sick. The end. (end of year)
It is clear that Tim’s beginning-of-year text is a much less successful written attempt than his end-of-year one. Cohesion within the beginning-of-year text was poorly established, largely through the repetition of theme. “We” was theme in the two and only clauses. Participants in the trip to King’s Island, Indiana Beach, Indiana Water Fun Park, or the White Sox game were never explicitly introduced, but were simply referred to as “we.” Not realizing the absence of immediate audience and the decontextualized nature of written discourse, Tim obviously did not recognize the need to recontextualize his oral monologue where he had identified Indiana Water Fun Park, or the White Sox game were never explicitly introduced, but were simply referred to as “we.” Not realizing the absence of immediate audience and the decontextualized nature of written discourse, Tim obviously did not recognize the need to recontextualize his oral monologue where he had identified the participants as “me, my mom and my dad.” Furthermore, the text was never adequately developed to give the reader an idea of what happened in those places: it contained only a brief, yet incomplete, orientation (having ‘who’ and ‘where’, but no ‘when’) and was not followed by a sequence of related events. Thus, ambiguous reference, coupled with the lack of textual development, renders this text a grossly unsuccessful written attempt.

Tim’s beginning-of-year text represents quite a distinct contrast to his beginning-of-year one. It contained a reasonably clear orientation (with who, where, what, and when), followed by a recount of what the author did at the bug bowl. Cohesion was reflected mainly through the use of two participant chains — an identity chain (I) and a similarity chain (bug-grasshopper-crab-cockroach) — and one behavioral verb process chain (eat). Furthermore, Tim used post-posed past participle “filled” to integrate two propositions that could very well have been expressed, as is typical of spoken language, in two separate clauses (there is a railing; cockroaches filled the railing). Such conceptual integration evidences the development not only of Tim’s linguistic skills but also of his cognitive potential, as children’s language provides a window to their cognitive world (Vygotsky, 1962). Syntactically, the use of post-posed past participle provides a model for the embedding of clauses. Cognitively, it provides a model for the integration of concepts and a model for the hierarchical organization of ideas.

Despite the linguistic and cognitive achievement, the end-of-year text also betrays Tim’s immature control over written discourse. The chaining syntax (i.e., and, and then) evidenced the influence of oral discourse, suggesting that Tim might not be acutely aware of the distinct differences between oral and written discourse. In addition, the present tense (there is ...) was inappropriately used in this recount genre. If we were to adopt a view of language, as Yule (1986) did, which regards linguistic form as carrying conceptual significance or structure itself, then we may, as Kress (1994) suggested, regard Tim’s inconsistent use of verb tense in this instance either as an indication that he had not yet learned to manipulate the tense ‘counter’ correctly or as an indication that he was not yet able to manipulate the ‘counter’ and reality through the concept. Furthermore, there was an instance of implicitness in the text. The use of the definite article in the noun phrase, the bug show, assumed that readers know which bug show it signified. While the implicitness may not always prevent readers from deducing the referent, it is worth pointing out that the use of definite noun phrase at first mention is normal only in situations where the reader and the writer both share some common knowledge. It is possible that Tim did not envisage any particular audience at all, but wrote without any reader in mind, perhaps just assuming that everyone knows what he knew. This could be, as Kress (1994) noted, a sign of egocentric mode of thinking and composing.

Comparison of the two texts composed by Dako shows identical developmental trajectory to Tim’s. Dako’s beginning-of-year text contained only an orientation, I went to Walt Disney World last summer, and a comment, I had fun. There was no textual development of any kind. The author did not elaborate on his experience at Disney World. It may be inferred that he did not yet have a clear sense of what a complete story was like or what a reader may find interesting. The text can be considered a simple one by any measure: its syntax, its plot structure, and its thematic progression.

Dako’s end-of-year text is a distinctly different kind from his beginning-of-year one. It contained all of the obligatory elements of a recount genre: an orientation and a sequence of events anchored in the concept “birthday party.” The orientation included “when” (one day), “who” (I) and “what” (had a birthday party), but left “where” (at home) implicit. Textual development was clearly marked by temporal conjunctions: one day - that night - when - after - the next day - then. Cohesion was further established through the use of pronouns such as we, me and us, all of which were clearly referenced. Syntax was much more varied and complex. There were simple clauses (e.g., one day I had a birthday party), complement clauses (e.g., my mom asked me if I wanted to go to the Arcade), adverbial clauses (e.g., when we got back, we opened presents). There were even two doubly embedded sentences: complement clauses embedded within adverbial clauses (e.g., the next day, when we played basketball she thought that she was going to win; after we opened presents, my mom asked me if I wanted to go to the Arcade). If we were to assume that a simple sentence embodies a single idea, then the development of complement, adverbial, and doubly embedded sentence structure is necessarily a prerequisite and corollary of the development of certain kinds of more complex thoughts and expressions.

There were traces of oral discourse patterns in the end-of-year text, however. The use of conjoined sentences linked by the neutral conjunctive “and” (e.g., then I got the ball and I stepped back to the three pointer and I made it) is a case in point. Despite the imperfection, it is clear that, like Tim, Dako also made quite remarkable linguistic and cognitive progress during the school year.
Schooling and the Development of Literate Potential

Overall, this study suggests that the children in both literature-based and skills-based classrooms were developing similar proficiencies, albeit imperfect, with the written mode of communication. Specifically, they were becoming more competent in constructing autonomous texts that are cohesive and more adherent to the socioculturally-defined genre conventions. However, except for certain syntactic sophistication (e.g., compound clauses) that is evident in some texts, most children in either classroom used few lexical and syntactic features characteristic of written discourse at both the beginning and end of the school year.

That the children in both literature-based and skills-based classrooms were expanding aspects of their literate potential in the first year of formal schooling suggests that schools, regardless of differences in the pedagogical context, can and do help socialize the child into, to borrow from Kress (1994), “appropriate and accepted modes of organized knowledge, of knowing, and the modes of representing perceptions and knowledge to others” (p. 124). It may be reasoned that this enabling process of schooling took place when the children engaged in literacy-related tasks in school, the most significant of which is probably storybook reading. Wells (1986) has argued that storybooks teach children the sustained meaning-building organization of written discourse and its characteristic rhythms and structure. That is, through experience with storybooks, children see context built up through structures of words, not, as in oral discourse, simply through references to immediate surroundings; all the clues from which the child constructs meaning lie in the words alone.

Such meaning-building prepares them for the less ‘contextualized’ language that teachers use and is associated with children’s developing competence in narrating events, describing scenes, and following instructions. More importantly, it is tied to children’s own inner “storying,” which they use to make sense of the social world around them and to create meaning. As Rosenhouse, Feitelson, Kita, and Goldberg (1997) has suggested, exposure to storybooks has a secret, “magical” effect. It might be that the kind of storybooks shared in these primary grade classrooms is just right for this initial stage of literacy development. The topics, structures, rhymes, and language patterns in the storybooks are familiar enough and developmentally appropriate to be assimilated, internalized, and appropriated by young children.

The lack of statistical significance in the children’s use of written language features is contrary to the finding reported in Purcell-Gates, McIntyre and Freppon’s (1995) study. Three factors may help explain this disparity. First, the Purcell-Gates et al.’s study defined lexical and syntactic features much more broadly than the present study did. For example, Purcell-Gates and her associates included, as written language features, categories that this study considered part of children’s oral language, such as single attributive adjectives (e.g., a brave knight), sound effects (e.g., she fell ... kersplash), -ly adverbs (e.g., he slowly and quietly followed them), and series of same nouns, verbs, adjectives, and adverbs (e.g., a
The Development of Literate Potential

contextualize children's early literacy development. They are: (a) children's reading experiences and reading instruction, and (b) children's writing experiences and writing instruction.

Both literature-based and skills-based classrooms provided the children with multiple opportunities to interact with storybooks, ranging from shared reading to independent reading. Despite the fact that the children in the literature-based classroom were given more opportunities to interact with storybooks, they did not develop significantly more knowledge of written discourse than did the children in the skills-based classroom who spent more time doing phonics and comprehension worksheets. This finding seems counter-intuitive. A recent longitudinal study of effects of storybook experience (i.e., Meyer, Wardrop, Stahl, & Linn, 1994), however, reported that while storybook reading is certainly important, greater benefits from such storybook experience can come only when children develop print-related awareness and skills. Another study (Senechal, LeFevre, Thomas, & Daley, 1998) found that while storybook exposure may enhance children's oral language skills, additional support in the form of explicit teaching may be necessary to enhance their written-language skills. In essence, the two studies suggest that in order to develop more mature control over written discourse, children need not only be immersed in reading storybooks, but also be engaged in conscious exploration and experimentation with written language in a wide range of discourse genres.

In this regard, it is important to note that neither teacher engaged her students in conscious examination of the techniques and conventions that the book author used in creating the story. There was little, if any, discussion about the lexical or syntactic significance of written language. The book talks hardly touched, in any explicit way, on the schematic and lexicogrammatical features of the textual genres shared. Instead, both teachers focused almost exclusively on the book author, illustrations, and personal responses during the storybook sharing sessions. Therefore, it is not surprising that the children from both classrooms did not differ significantly in their understanding of the features of written discourse.

As for writing instruction, the children in the two classrooms were rarely explicitly instructed in the written discourse patterns of any particular genre during individual or group writing conferences. In the literature-based classroom, the children were, on most occasions, free to write whatever they wished to write. So, while there was time each day for the students to practice journal writing, teacher intervention and direction were kept to a minimum. Typically, the children were encouraged to write a story based on their personal experience and at their own pace. After the story was done, each child showed it to the teacher. The teacher then made a check mark on the student's journal to signal the completion of the writing assignment so that the student can move on to another project. There was little, if any, explicit guidance on how to construct an effective written text. On the other hand, in the skills-based classroom, there were far fewer opportunities for practicing writing for real purposes. Moreover, the teacher seemed to be preoccupied with handwriting, spelling, capitalization, and punctuation in the children's writing, to the neglect of discourse level concerns. Scholars (Derewianka, 1990; Hammond, 1990; Williams & Colomb, 1993) have suggested that in order to con-

Finally, there was a general lack of opportunities in both classrooms for the children to experiment with writing diverse genres. This might have contributed to the predominance of the recount genre in the children's texts. Almost all writing assignments in class dealt with the retelling of the children's personal experience or were in response to storybooks shared (often recounts and narratives). The "show and tell" time in class offered one rare opportunity for the children to experiment with the description genre. In both literature-based and skills-based classrooms, there was "show and tell" time each morning when the children were encouraged either to relate a personal story or to tell the class something about an artifact (e.g., puppet, poster) they had brought to the class. This classroom experience could have accounted for the increase, albeit small, in the description genre during the school year.

Conclusion

The present study describes young children's developing understanding of written discourse in two different pedagogical contexts. Both quantitative and qualitative findings suggest the first graders were developing emergent understanding of the distinctive features of written discourse (i.e., autonomy, stability/predictability, unique grammar). The striking similarities in the children's written discourse knowledge between the literature-based and skills-based classrooms betray a pedagogical commonality (i.e., lack of explicit talk about textual features) that existed in the two otherwise very different instructional settings. While the children's understanding of the features of written discourse appeared to have developed mostly through "implicit learning" (Reber, 1993), the immaturity demonstrated in their texts suggests that, rather than passively waiting for children's natural development, proactive, explicit instruction on the schematic and lexicogrammatical features of diverse discourse genres, as well as on the stylistic differences between oral and written discourse in general, may enhance children's understanding of written discourse genres in particular and quicken their development of the literate potential in general.

The fact that some children in this and other studies (e.g., Cox, Fang, & Otto, 1997; Purcell-Gates, McIntyre, & Freppon, 1995) did acquire some of the linguistically and conceptually more sophisticated written discourse patterns suggest that this recommendation may not be altogether unfit for young children. Clearly, further research is needed to explore whether and how such an explicit pedagogy facilitates the development of communicative competence among young children from diverse backgrounds.
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Biography

Zhihui Fang is an assistant professor at the University of Florida where he teaches graduate and undergraduate courses in literacy and language education. His recent research focuses on children’s language development during the transition from emergent to conventional literacy. He is currently collaborating with university and public school colleagues on funded projects to develop exemplary literacy programs for at-risk children in inclusive classrooms. He also conducts staff development workshops at local professional development schools.