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THE RESEARCH "STORY": A FORUM FOR INTEGRATING READING, WRITING, AND LEARNING

WILLIAM McGINLEY
AND DANIEL MADIGAN

Understanding how to do research is every bit as important for students as the information learned from a particular research project. A case study of one child helps us see that writing stories about the research process itself is a powerful learning tool.

Kristin, a fifth-grader and would-be banker, discusses her search for information about banks and a future career in banking:

> I sat for awhile looking in a book but I already knew everything that was in there. I talked to my dad. . . . I sat down and I said I don't need this book because I already know everything in it and I can't ask the book questions and it won't come up and talk to me. I can't really see the bank if I look in a book because it won't tell me the main ideas I want to know. So I decided maybe I could go to a bank sometime.

After completing his own research project, Macundo, a student in the same fifth-grade class, offers some advice to several of his peers about to embark on their own searches for information about topics of personal interest:

> Don't say you can't get any information—it's fun and not really hard because you just have to think about it. First get your own ideas. Don't just go straight to books. Think first on it and if you don't get something just think of something that can help you and just go look for it. Think of a lot of ways to get your information.

On the surface, the comments of Kristin and Macundo might appear naive—perhaps typical of the daily exchanges that characterize the conversations of teachers and students in a fifth-grade classroom. However, on another level their remarks reflect a shared vision and understanding of the process through which they acquire new knowledge and the modes of inquiry that are available to them as independent thinkers and learners. For example, in talking to his peers, Macundo conveys an excitement and commitment to learning and the process of inquiry that involves pursuing a variety of sources in the search for appropriate information. Similarly, Kristin's remarks reflect a strategic understanding and insight into the unique kinds of information that result from such different ways of knowing as reading a book and actually interviewing employees of a bank.

Additionally, the comments of both Kristin and Macundo, as well as similar statements by their peers, serve as a reminder of the questions with which we originally began a five-month project involving a teacher and several of her fifth-grade students in a classroom in southeastern Michigan. It is with these comments in mind that we wish again to ask what understandings or insights these children had acquired about how they, as independent learners, came to know about topics or issues of interest. And, given that they had acquired such knowledge, what kinds of instructional activities contributed to their understanding of how one might use different forms of reading, writing, or discussion to think and learn?

By working with these children, we tried to explore the extent to which engaging them in the activity of researching topics of interest provides a

promising instructional forum for introducing students to the *process* of inquiry and the role that reading, writing, and talking play in this process. In addition, we hoped that by inviting students to research such topics, we might provide them with classroom opportunities to engage in more authentic uses of oral and written language. Such uses arise out of a genuine need and desire to know about their lives and their world and lead them beyond the classroom into their neighborhoods and communities in pursuit of new learning. These research opportunities could provide a necessary and important balance to the kinds of activities that currently form the centerpiece of many reading and writing programs. These programs are often characterized by artificial "purpose-setting" procedures where texts are read and written primarily for the purpose of "practicing" reading or writing (Anderson, Hiebert, Scott & Wilkinson, 1985; Duffy, Roehler, & Mason, 1984; Ogle, 1986).

When confronted with the words research paper *. . . the word* paper *becomes an hypnotic device—a siren call luring students to focus exclusively on the product of their research.*

Although our work in this classroom focused on developing children's ability to engage in researching and inquiring into subjects of interest, the specific approach we employed and the way in which we conceptualized the "research paper" and its instructional role represents a departure from existing approaches (e.g., those of Beatty, 1987; Benson, 1987; Campbell, 1984; Schwegler, 1982). Alternatively, we believe that on the occasions that elementary students are engaged in researching a topic and writing a research paper, they come to perceive the task much too narrowly for the purposes of learning and inquiry. When confronted with the words *research paper,* the word *research* often becomes an afterthought or is misunderstood by the student, while the word *paper* becomes a hypnotic device—a siren call luring students to focus exclusively on the product of their research. Specifically, we wish to extend the notion of research from one of an exclusive focus on content or product to one which also focuses on the process by which students come to know and learn.

In providing students with an instructional forum through which they might combine oral and written language in more authentic pursuits, we sought to build upon Macrorie's (1981) notion of the I-Search paper. An alternative approach to traditional research, I-Search reaffirms the importance of the "search" in the research process and engages students in more primary or personal inquiry that frequently involves interviewing as an important means of acquiring new information. In contrast to the traditional research paper, an I-Search paper takes the form of a more informal narrative, providing the reader with both the specific details of what was learned as well as the "story" of how that new knowledge was acquired. As such, by engaging students in writing the story of their search or hunt for information, I-Search provides a familiar format through which they might express what they learned in narrative voices of their own.

Additionally, our work in this classroom concerning the research process was informed by the later writings of the German philosopher Wittgenstein (1953) and his prominent metaphors for knowledge acquisition, particularly the metaphor of the "criss-crossed landscape." Like Wittgenstein, we take the theoretical position that a topic of study is analogous to a conceptual landscape about which knowledge is best acquired by "traversing" it from a variety of perspectives. In our approach, different modes of inquiry (such as reading, writing, notetaking, talking, observing, and interviewing) represent the "traversal routes" through which a learner can more thoroughly examine and explore a given topic by virtue of the multiple perspectives or ways of "seeing" and thinking that these modes of inquiry permit. It was these ideas that formed the scaffolding on which our project was built—a project that would invite students and their teacher to reconceptualize the way they viewed the research paper and its instructional role in the elementary classroom.

The Classroom Context

Our story begins with Diane, an experienced elementary school teacher committed to the teaching and learning of the 32 fifth-grade readers and writers in her classroom—a classroom where re-

search projects were a regular activity. Before we were invited to participate as collaborators with Diane, she had just completed a project that required her students to become active inventors. These students conceived of an invention, drew up plans for its construction, and produced the invention which was then displayed for local news media and parents. We understood Diane's pride in her students' achievements. We could easily see the creative projects on display throughout the room. As a follow-up to her students' projects, we were encouraged by Diane and her class to invite an acquaintance of ours who represented an inventor's society for much of the area of southern Michigan to speak to the children. During his visit to class a week later, Downs Herald, Director of the Inventors Council of Michigan, emphasized the process real inventors endure before their inventions are realized in the form of a final product. Could it be, Diane asked us after the presentation, that her students did not receive the full benefit of their work during this and similar projects involving research? What would happen if the search, including the successes and failures of finding pertinent information and other discoveries along the way, was emphasized as the students' projects developed? What if students were provided with opportunities to share their growing knowledge of new subjects from the very inception of their work?

As we posed and discussed these questions with Diane, we realized that much was missed "along the way," both in students' recent inventions and in the many research reports they had completed throughout the year. For instance, Diane was concerned that although much effort and learning apparently went into the inventions they created and talked about, the process through which the students arrived at the finished product became blurred and was only briefly mentioned in a final presentation. How, she wondered, could we help students to focus on both the content of their research as well as the process by which they came to learn?

By addressing these difficult questions, Diane decided to invite her students to engage in a different kind of research—one in which both the process and the content of students' learning were addressed. Reluctant to begin with the entire class, she chose several students who were interested in researching a topic of special interest to them. To Diane, these students would act as an original group of "research liaisons," informing the class about the research process in which they were engaged and providing an opening for others to begin similar research projects of their own. At Diane's request, it was these students with whom we worked during our weekly visits to the classroom. In an effort to a provide a clearer sense of how such a project progressed, as well as to particularize our theoretical ideas, we offer the following discussion of one student and her search for information and meaning about the topic of banking.

Exploring the Process of Inquiry: A Case Study

Kristin was a fifth-grade student whose search for knowledge led her to begin exploring the unique contributions that different modes of inquiry can make in developing and deepening one's knowledge of a topic. She was typical of many of the students in Diane's class who were willing to extend their learning beyond that which might normally occur in the classroom. Kristin was one of an original pair of students who at Diane's suggestion were in need of additional help and would benefit from such a project. Eventually, Kristin became part of a larger group of interested students that pursued similar research projects on topics of interest to them.

Source Sharing

Kristin's purpose was to learn more about banking—a subject she became enamored with as a little girl when she accompanied her father on his weekly forays to the local bank. The tale of her search for information reveals how she came to make meaning of the world of banking. During our first encounter with Kristin, she appeared shy but committed to conducting an inquiry into her topic. In these initial group discussions we encouraged Kristin and her fellow students to begin reviewing what they already knew about their topics while supplementing that information with knowledge acquired from informal discussions with their parents. Additionally, students engaged in source-sharing discussions among themselves and with the teacher which focused on where they might find information about their respective topics and the kinds of information each resource might provide. Students were encouraged to keep a record of all possible sources in the form of written notes. Excerpts from Kristin's notes re-

veal she had decided upon four possible resources, and with our help as collaborating teachers, she had made a record of the kinds of information each might yield.

What you can find at the bank

1. someone to ask questions about banking
   tellers—if you like job and other co-workers
   ass. managers—goals
   manager—how would they act in a robbery
   boss—how they became VP or P
   other reporters—there info and places they went

What you can find at the library

1. look up banking
2. look up history of banking
3. look up famous bankers

What you can find from the telephone book

1. banking hours
2. addresses
3. bank names

What you can find from your Dad and Mom

1. about their accounts
2. what people do at banks
3. handing out coins

These discussions focused on expanding the potential repertoire of resources that Kristin and other students might use in their search for information and on helping them recognize the different kinds of information that each resource was capable of providing.

Questions: What I Want to Know

In these early discussions students were also encouraged to begin developing specific questions they would like to have answered about their topic. Having formulated questions which reflected what they wanted to know, students were asked to think about which resource or resources would be most appropriate in helping them answer such questions. For example, at the end of the first week Kristin had decided that her previous knowledge about banking was not sufficient—she had formulated numerous questions about her topic that were still unanswered.

> How much money do they have in the bank?
> Do you like your job?
> Do you want to work someplace else?
> Can you show me how to open an account?
> How do I get a loan?
> How many people work in a bank?
> What would you do if the bank was robbed and how would you replace the money?

Although the nature of Kristin's questions indicate that a conversation with an employee of the bank might have been an appropriate place to begin, she decided to initiate her search with available books in the school library. As a result, her learning experience was somewhat limited because she relied on an encyclopedia for finding answers to her questions.

> I thought there would be more information from the encyclopedia, but when I was sitting there reading it and started writing it down, I didn't know why I was writing it down. . . . I had to do something.

Kristin appeared to be operating almost by rote. Without regard for the kinds of information she was in search of, she saw a need for inquiry among books. But this presented a problem for which she had not prepared. It was customary for her to go to books in order to learn about a subject, but it was not customary for her to come up empty-handed. However, during group discussions in which fellow students questioned her about her reasons for selecting certain facts and ideas while disregarding others, Kristin's reluctance to accept indiscriminately any new information as important knowledge became apparent. For Kristin, understanding of the modes of inquiry and the purposes they might serve in the making of meaning was changing. She reflected on her reading about banks:

> The most exciting thing I got from the encyclopedia was 'bank' is the Italian word 'banko' meaning bench.

Certainly, this was new information for Kristin, but was it useful for someone who wanted a career in banking and who sought answers to a very specific set of questions?

Undaunted and eager to continue with her research, Kristin checked the card catalogue and found one more book. But much like the encyclopedia, it too was an artifact that "didn't have enough information." However, subsequent comments by Kristin again revealed that her dissatisfaction at this point in her search was more the result of the kind of information she had found rather than the actual amount or quantity of information that was available.

> I went to the library and found one thin book. It was real short and easy to read, but all it showed was different parts of the bank and it was real old. . . . When I read it I learned something that the idea of how they started banks and how they opened loans and accounts.

Clearly, although the book was informative, it did not supply Kristin with the specific type of information for which she was looking. As we would later discover in our conversations with her at the conclusion of her research, she regarded the books she encountered as more appropriate for someone seeking information about such things as "the largest bank or the city that has the most banks." Her search continued.

During a small group discussion in which she and another student shared information about what they learned as well as how they came to learn it, Kristin explained that the majority of the ideas made available to her through books was only a review of information she had already acquired during numerous trips to the bank with her father. "I knew banks had vaults and everything," she said. Of course, books are certainly an important source of information and learning. However, at this point in her search it became clear to Kristin that she had to explore other ways of knowing or traversing her topic of study.

Throughout the early stages of her research, Kristin's memory of observations she had made during earlier visits to the bank served as a major source of ideas and information. Now, after several days of running into dead-ends at home and in the school library, she decided that her questions could best be answered by returning to the bank to observe again and this time taking notes about what she saw. Unfortunately, Kristin's observations seemed only to replicate what she already knew from past experiences and visits to the bank. "I went to the bank but I didn't get much information," she said.

Having simply observed the inside of the bank, it became clear to Kristin that if she was to learn more about her topic, future visits would require that she become a more active and questioning investigator. In a normal classroom situation in which time limits often dictate premature closure of a student's work in progress, Kristin's search for new knowledge about banking might have come to an end here. However, our notion of what constitutes successful inquiry and learning can only be achieved through a longer time frame, one which, as Knoblauch and Brannon (1984) explain, engages students in a continuous "effort to articulate" that in turn "creates potential for new learning" (p. 51). Consequently, our efforts throughout the project encouraged Kristin and the other students to allow themselves time to read, write, talk, observe, and then read and write some more as it was relevant to exploring the particular "landscapes" they wished to know more about. Even having encountered many stumbling blocks, Kristin was encouraged during both group and individual meetings to try other modes of inquiry and continue the search:

> Kristin: I found office locations. They had a big map. I got some facts from the phone book. I looked in the card catalogue and found one book on banking.
> Mr. M: Do you think you have enough info to start writing?
> Kristin: I got that part from when we were in the library, and I know a little bit in my head.
> Mr. M: Is there anything else you need to know if you were to start writing at this point?
> Kristin: I need a little bit more.
> Mr. M: Maybe we can call a bank this morning to set up an interview?

Learning from Interviewing

Kristin's persistence and her desire to learn ("I need all my questions answered.") combined with our willingness as teachers to provide a forum that gave students time and opportunities to engage in an authentic search for information. Such a forum supported Kristin's need to know, and she continued her research by setting up an interview with the manager of a local bank. Most students were initially reluctant to make such contacts, but they often received the necessary support from their peers. The advice of another student provided Kristin with a place to begin:

> Call them up and say hello this is Kristin and I'm doing research on banking and I have a few questions.

> *It was a genuine need to know about the topic of banking that led Kristin on her search . . .*

Although she had been to the bank numerous times prior to the project and again at the outset of her research to "see what they (bank personnel) really do," this opportunity to observe and conduct an interview provided Kristin with a new way of seeing and learning about banking. This time Kristin was not on the periphery looking in at the bank's operations and passively taking in what she observed:

> The interview helped me the most because you're right there and she (the bank manager) can tell you what she knows about it; and you can go through a bank and look around. . . . You can see what they really do. . . . You can ask questions.

For Kristin that meant having answers to questions reaffirmed with examples of artifacts from a real bank with real employees as characters. Indeed, while Kristin found out about the policies a bank manager must adhere to concerning a robbery (e.g., "no one, including the customer, should be harmed"), she also had the opportunity to witness the artifacts of a bank that captured her interest and formed the basis for many of her new questions and new learning. These artifacts included the safety deposit boxes sometimes coveted by thieves; the alarm buttons hidden underneath the desks of all employees who used them to notify authorities in the event of a robbery; and the cameras, which as Kristin explained, "take pictures of people (suspected robbers) that look funny." Clearly, the interview allowed Kristin to be an active participant in the making of new knowledge by providing her with the particular type of information she was unable to find through other modes of inquiry. She directed her own search for information about banking, taking the initiative and making the decision to shift from reading books to interviewing as it was relevant to her particular needs. As a result of the interview, she was able to generate additional questions as the need arose—something she found difficult to do through reading or observation alone. Although her generation of questions was selective, it was not unlike similar strategies used by any proficient reader searching texts, whatever their form, for pertinent information.

Learning from Writing

It was a genuine need to know about the topic of banking that led Kristin on her search through various modes of inquiry: reflecting on past experience, reading books, observing, and interviewing a bank manager. Interestingly, it was this same need that led her to examine her own writing for what she had learned or still needed to learn. However, this need was not apparent to her at first. Writing was not easy for Kristin and others in her group, nor was it the preferred mode for communicating the story of her search to her peers and other members of the group involved in similar research. Talk was a more comfortable medium of expression and communication for them. Often during group discussions and in casual conversations with her classmates, Kristin recalled from memory what she had learned from her study of banks and banking. And although she articulated this new knowledge with enthusiasm in an effort to be more comprehensive and to see anew what she had learned from her inquiry, she invariably reviewed her written artifacts: notes and answers to questions from the interview, various written facts compiled from the "Yellow Page" advertisements of local banks, and excerpts from other books. Kristin's efforts to explain her notes and written answers to her questions about banking reveal how these activities provided her with an important way of examining and seeing anew what she had learned about her topic:

> *. . . the notion of children conducting research and learning to direct their own searches for information about topics is not a neatly packaged activity.*

> They (notes, questions, and answers to questions) really answered my ideas. I wrote notes (answers to questions) so I wouldn't forget everything I found out at the time.

However, Kristin's notes served as more than just a recorded document or a reminder of what she had already learned. Indeed, additional comments by Kristin reveal the emergence of a more generative view of this type of writing: "They (my notes) taught me about what I learned." Through her notes she was able to examine what she had organized as useful information; and by creating her own record of the information she had encountered, Kristin came to make new knowledge in a "text" of her own—a kind of "support text" that she could revisit in order to reexamine and "see" her own learning as she sought to compose the story of her search. She later explained when questioned about how the notes and the outline she developed helped her reach her goal:

> I studied my outline and tried to put in it order. . . . I put all the characters together and how I started the search.

The Research Story: Combining How We Learn with What We Learn

Since we were aware that writing had proven useful for Kristin throughout her research, we invited her to present to the class the written story of both what she had learned about banking and how she actually had gone about the process of acquiring this knowledge. In preparation for her presentation, we asked that Kristin begin thinking about how she might tell the story of how her knowledge was acquired in conjunction with what information she learned. Although Kristin's comments about her paper reflected a genuine understanding of this form of writing ("I could write it like a story—like how I got started and when I went to the bank"), we suggested that she should discuss at some point in her paper what she had known about her topic before the project began, why she was writing this paper, the story of her hunt for information, and what she ultimately learned.

Needless to say, we were surprised by her reaction to our request. Initially, Kristin didn't think that writing such a paper could help her in developing and refining her knowledge about banking. However, her resistance to writing was short-lived when we asked that she "tell the story" orally in a practice session before the presentation. When Kristin was questioned about what she learned from her mock presentation, she became dissatisfied with her account of the search:

> It's kind of hard to pull it out of my head. By just saying it I might forget something. I forgot some things when I was just telling you. . . . It's easier to write it down because I could remember more about it.

In preparing to compose her story, Kristin was first helped to generate a partial outline that chronicled the ways in which her research evolved (how she learned).

1. I got ideas and talked about them.
2. I went with my dad to observe a bank.
3. Looked in the books (enc. & one other book).
4. Looked in the phone book for facts & later called to set up an interview.
5. Had an interview with Katie Marlow at CoAmerica.

Although it was clear that Kristin understood the importance of writing, she was less certain about how she might actually begin her story. As a result, subsequent conversations with both her and the group focused on helping them understand how a research story might be similar to a more traditional story with characters, a beginning, middle, and an end. Interestingly, Kristin decided to write her research story in the third person, placing herself as the main character in her paper.

> Once there was this girl and at the age of five she started learning more around her like: job's, people, places, and things. The first thing she really liked was the bank. When ever she went to the bank with her mom & dad she would watch everything around her. Ever since then she like the bank and learned a few things right there.
>
> At the age of 10 she wrote a little report on banking. Then in the 5th grade she started a isearch.

Subsequently in her paper, Kristin was careful to explain how she had gone about the process of learning, as well as to mention what new knowledge she had actually acquired.

> . . . She looked around the library and in the encyclopedia and found some information but, not alot to start writing. So she talked to Mr. Madigan and he said to look in the phone-book. So she looked in the phone-book and found some information but, still not enough.
>
> She went to the bank with her dad to observe. The next day she tolled Mr. Madigan what she did, and he asked "Is that enough information."
>
> "No" she replied.
>
> At the next meeting the girl called and set-up an interview with the Maneger Katie Marlow. That Friday May 3 1989, she went with her mom for the interview and she was there for about 1/2 hour talking and asking questions like: How much money is in the bank, and there was $225,000 . . . cash and coins. She also got to go behind the tellers desk and meet the other employees, Kathy, Pam, and Jane. But what the girl liked most was the money.

Although these excerpts provide a partial account of the research processes in which Kristin was involved, the questions we posed after reading her draft encouraged her to review and reexamine what she had written. As a result, Kristin recognized that much of what she had learned from her research had not been fully disclosed. The following discussion illustrates the discrepancies that existed between the information Kristin had acquired about banking and the information she actually reported in her paper. It also provides a sense of the way in which writing and the reexamination of ideas that writing affords served as a way of knowing.

Mr. M: Now that you had a chance to go behind the desk during the interview, what surprised you, or what didn't you expect?
Kristin: I thought all of them had old ugly computers, but they had these real nice computers and they had their own vaults and they sell traveler's checks. I noticed the cameras during the interview, and I asked her what it was for, and she said she takes pictures of whoever looks funny.
Mr. M: Why didn't you put the part about the cameras and alarm button in your story?
Kristin: I didn't think it was important as the other parts. It was important for me but not for the people I was telling the story to. I don't think they would want to know about buttons under a desk.
Mr. M: But you were excited, and didn't you think your audience would be?
Kristin: Yes.
Mr. M: Is there anything you would like to add now?
Kristin: I left out one question that Macundo gave me about the robbery.
Mr. M: Could you go back now and put it in?
Kristin: Yes, I was going to put it with the button part. I'm going to rewrite my story.
Mr. M: What was the biggest difficulty you had in writing your story?
Kristin: Well, I really thought I was going to leave something out; and when I wrote it, I did. Now when I was talking to myself, I still left a part out.

The act of writing was emerging for Kristin as more than just a means of recording the facts she had already acquired—it was becoming more than an end in itself. As the previous discussion indicates, the written account of her search was not some sort of mythical report to be handed in and graded. To the contrary, her writing served as an important vehicle for thinking clearly about her experiences and helping her to "rediscover" all that she had learned, thus allowing her to see the inconsistencies between what she wrote and what she knew. Writing had begun to emerge, as Gage (1986) suggests, as a way of making thought "tangible" because "it is on the page and not in the head invisibly floating around . . . a way of holding thought still long enough to examine its structure, its flaws" (p. 24). Furthermore, the discussion of her paper reveals that Kristin had already begun to write again.

Her story also represents a potentially rich source of information, a kind of "itinerary" for how her knowledge about banking was acquired. In this sense, it became a valuable resource for students or other readers about to embark on their own topical inquiries and searches for information. As Kristin explained:

> If someone had never done one (a research project), we can write it down and sort of teach them and it would be easier if everyone could read what I said—what I did. . . . I wrote about what I did learn and didn't learn and how scared I was. . . . If I wanted to do more research next year or sometime, I can look back and get some ideas from what I wrote.

It is evident from Kristin's comments that she and other readers could learn from her written text long after the project was finished. Her comments reflect a view of learning that is, at least in part, parallel to what Knoblauch and Brannon (1984) refer to as "open-ended," providing the reader/writer with the opportunity to continue to think and learn about similar topics of interest.

Research as a Forum for Exploring the Process of Inquiry

Few would argue that one of the more valued intellectual activities associated with formal schooling is the ability to use reading and writing to inform oneself about various topics of study and areas of interest. However, as Smith (1988) notes, children in school are often expected to assume a more passive role with respect to their own learning—frequently relying solely upon the teacher for all that they need to know. As a corollary of this view, both educational researchers and theorists from a range of academic disciplines have expressed concern over the need to begin fostering students' ability to think critically about issues and topics of study (Ennis, 1987; Freire, 1982; Giroux, 1988; Langer & Applebee, 1987; McPeck, 1981; Smith, 1988).

Proponents of this view in the area of literacy and literacy education have emphasized the importance of developing students' ability to direct their own recursive reading and writing activities such as writing notes, reading source material, outlining, writing a draft, and reading a draft en route to thinking critically and conducting an inquiry (Durst, 1989; Kennedy, 1985; McGinley, 1989; Nelson & Hayes, 1988). Indeed, as O'Flahavan and Tierney (in press) explain, the process of conducting research and informing oneself requires that students be able to make timely decisions about the usefulness of undertaking a specific reading or writing activity at strategic points across a project. According to

O'Flahavan and Tierney, students must "recognize the value of initiating an engagement (in reading or writing) at an appropriate time," in addition to "understanding the unique purposes" that different modes of inquiry might serve.

In this essay we have suggested that engaging children in the activity of researching and exploring topics of interest provides a promising forum for introducing them to the process of inquiry; the strategic decisions involved in conducting research and informing themselves; and the role that reading, writing, and talking play in this process. In addition, we have proposed that the notion of children conducting research and learning to direct their own searches for information about topics is not a neatly packaged activity. Asking students to engage in the sort of research we have proposed requires a personal commitment to "wanting to know" and a willingness on the part of both teachers and students to pursue a variety of ways of knowing, many of which may send them searching beyond the confines of the classroom and the card catalogue. As the chronicle of Kristin's search for knowledge about banking reveals, children must be provided with authentic reasons to use and integrate reading, writing, and talking in learning if they are to develop as thoughtful learners capable of informing themselves and coming to understand their lives and their world. For Kristin and the other children with whom we worked, conducting research provided a forum within which they could begin to explore and understand the process of inquiry and the unique ways of knowing and "traversing" a topic that various modes of inquiry provide. By our encouraging Kristin to focus on her search and the process by which she came to know, she was provided with important information and knowledge concerning the uses of reading, writing, and talking as she sought to make meaning.

> *. . . we have come to believe that students are "at risk" if they are not provided with opportunities which allow them to orchestrate their own reading, writing, and talking enroute to thinking and informing themselves.*

For example, as she began her inquiry, reading helped her to clarify her previous knowledge about banking, in addition to helping her further identify and confirm what she wanted to learn. Her interview with the bank manager provided her with new facts and information that became contextualized in the real world of a bank. In writing notes, Kristin created a text of her own, a tangible record of her questions and answers to be organized and examined for later use. And finally, composing the story of her search provided her with the means to reexamine objectively what she thought she had learned en route to making her experiences coherent to herself and others in her class. As the research of Kristin and her peers progressed, learning itself became a topic of discussion among members of the class. They became experienced advisors to one another, sharing their struggles and fears, recommending new sources of information when it seemed a search had reached an end, and offering advice on how to avoid unnecessary delays in their work. Herein lies the value of the activity: the research and reflection on the research enables students to explore and demystify the process by which they and others come to know, a process that involves awareness of the unique roles that reading, writing, and talking play in acquiring knowledge and an understanding of the struggle involved in making meaning. Indeed, in considering the value of the search, we are reminded of the opening comments of Kristin and Macundo as they reflected on their own search for information and offered advice to their peers about the process through which they had learned.

Nevertheless, one might ask if there are too many risks involved in a project like this one for fifth grade. Wouldn't students have too much freedom in choosing and changing their methods of inquiry and, as a result, produce too much chaos in the classroom? Are these students capable of managing and directing their own searches for information? Would children indeed learn about topics that are considered pertinent in classroom settings today? And finally, is the actual process of conducting the search for new information as meaningful and as valuable as we have suggested? For Kristin and her peers, several of whom were labeled "at risk" prior to the start of the project, the words "at risk" became moot in the early stages of our work. Their independence as learners and seemingly chaotic struggle to

make meaning during this project provided them with an opportunity they might not have received in a traditional classroom setting where a completed "report" may be the sole basis upon which learning is assessed. On one level, the research stories that Kristin and her peers created provided the basis for reflection and learning about the process through which they came to know. This process has frequently gone unnoticed in classroom research projects. However, on yet another level, the chronicle of Kristin's search for information reveals a growing knowledge and sophistication concerning the struggles and strategies involved in the process of learning and knowing—a process that is shared by all independent thinkers and learners.

In fact, we have come to believe that students are "at risk" if they are not provided with opportunities which allow them to orchestrate their own reading, writing, and talking en route to thinking and informing themselves. Also, we as educators are at risk in our own learning if we do not begin to acknowledge what Knoblauch and Brannon (1984) have espoused about learning:

> . . . the making of meaning is inexhaustible because it never closes on something extrinsic to itself which limits its scope. It is its own end and therefore endlessly in progress (p. 63).

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William McGinley teaches in the School of Education at the University of Michigan in Ann Arbor, Michigan. Daniel Madigan is Assistant Professor of English at Bowling Green State University.