Imprecise definitions and indeterminate effects of schooling have plagued the field of writing and have led to a persistent antagonism between the professional teacher and the professional assessor. Into this historical situation entered portfolio assessment in the 1980s. Can portfolio's be used in lieu of standardized tests and other forms of state and national assessment? One impediment would be the apparent discrepancy between the purposes of portfolios at the classroom level (how teachers use them) and at the district or state levels (how portfolios can be used to measure learning). A study attempted to document how different teachers used portfolios in their literature classrooms, with an eye to exploring implications for large-scale uses. Results took the form of case-studies of four teachers in New York and self-reports written by eight others in Connecticut. Analysis of the results focused on the metaphor that teachers used to describe their use of portfolios. Teachers of course did not use the metaphor implicit in many discussions of educational assessment, that of the factory and assembly line, but on the other hand they were not in agreement as to what metaphor to use instead. A table shows a broad range of terms describing the portfolio process; portfolios are understood to be everything from diaries or meditations to museums or portraits. One analogy particularly worthy of exploration is that between the hypertext and the portfolio--both challenges to traditional classroom ways. (Contains 16 references.) (TB)
The Metaphor of the Portfolio and the Metaphors in Portfolios: The Relation of Classroom-Based to Large-Scale Assessment

Sarah L. Jordan
Alan C. Purves

National Research Center on Literature Teaching & Learning
UNIVERSITY AT ALBANY • SUNY
The Metaphor of the Portfolio
and the Metaphors in Portfolios:
The Relation of Classroom-Based
to Large-Scale Assessment

Sarah L. Jordan
Alan C. Purves

National Research Center on Literature Teaching and Learning
University at Albany
State University of New York
1400 Washington Avenue, Albany, New York 12222

Report Series 3.9
1994

Preparation of this report was supported under the Educational Research and Development Center Program (Grant number R117G10015) as administered by the Office of Research, Office of Educational Research and Improvement, U.S. Department of Education. The findings and opinions expressed here do not necessarily reflect the position or policies of the sponsoring agency.
The National Research Center on Literature Teaching and Learning is a research and development center located at the University at Albany, State University of New York. The Center was established in 1987 (as the Center for Learning and Teaching of Literature), and in January 1991 began a new, five-year cycle of work sponsored by the Office of Educational Research and Improvement, U.S. Department of Education. The Center's mission is to conduct research and sponsor activities to improve the teaching of literature, preschool through grade 12, in schools across the nation.

Center-sponsored research falls into three broad areas: teaching and learning processes, curriculum and assessment, and social and cultural traditions in the teaching and learning of literature. Special attention is given to the role of literature in the teaching and learning of students at risk for school failure, and to the development of higher-level literacy skills, literary understanding, and critical thinking skills in all students.

For information on current publications and activities, write to: Literature Center, School of Education, University at Albany, 1400 Washington Avenue, Albany, NY 12222
Most of this paper is, like many research papers, a simple recounting of our experience working with teachers who were beginning to use portfolios in their literature classrooms. It is, for the most part, a practical paper, since the research, conducted through the National Research Center on Literature Teaching and Learning, uses a case-study approach in investigating how teachers use portfolios. But the research—and the arguments stemming from the research—becomes more complex, since the use of portfolios in classrooms takes on a metaphoric or symbolic role in education.

One uses metaphors to name one’s place in the world and to find meaning for one’s life. Using metaphors to explain how portfolios are used is also a way of conceptualizing one’s reasons for teaching and one’s expectations for students. But the portfolio is more than an object—it is also a metaphor itself. If metaphors are so powerful, and if they are individual, then a serious problem arises for those who wish to make large-scale generalizations about portfolios. Large-scale generalizations can get very messy, as we found out when we made an attempt to expand the implications of individual teachers’ metaphors to include the role of the district, if not the nation.

Later in the paper, therefore, we abandon the practical, research-based aspect of the paper, and jump into a discussion about hypertext as a possible metaphor for the portfolio, the classroom experience, and educational systems in general. We feel that this discussion is necessary because of the impact that computers have begun to have on our conceptions of text. Hypertext is the confluence of text segments (or spaces) that may be recombined by the reader, who must then make sense of the original. A hypertext is “nonsequential” writing—text that branches and allows choices to the reader, best read in an interactive sense. As popularly conceived, a hypertext is a series of chunks (of text) connected by links that offer the reader different pathways.

We offer this metaphor because both portfolios and hypertexts have appeared at a time when challenges have been made to traditional ways of thinking about writing, about the teaching of writing and literature, and particularly about the assessment of learning. These
challenges are evident in a number of guises: whole language, process writing, response-based literature, third-generation evaluation; challenged are notions of generalizable skills, drill and practices, authorized interpretations. Although the use of hypertexts is not commonly found in schools, we believe that one day teachers will feel comfortable with computerized texts that can be connected in any order and still make sense, just as we hope that one day students might perform a classroom activity and not worry about the grade received.

BACKGROUND

Imprecise definitions and indeterminate effects of schooling have plagued the field and have led to a persistent antagonism between the professional teacher and the professional assessor. Each time a test has been produced, it has been attacked as being narrow or limiting by some teachers. Psychometricians have thrown up their hands at the fuzzy-headedness of the teachers; teachers despair that any external test will ever measure what really is being learned in the classroom. Another aspect of the antagonism has arisen from the differences between the practice in a single classroom and the curriculum definition of the district, state, or country. The antagonism has been exacerbated as the educational system has opened its doors to include people who would have been excluded from schooling on the basis of race, ethnicity, social class, or disability. Such an opening has been attended by a broadening of the curriculum and an emphasis on processes rather than rote knowledge.

Into this historical situation entered portfolio assessment in the 1980s. The portfolio as a collection of representative pieces of an individual's work had long existed for artists of various sorts, including writers. Its entry into school-level assessment also began with the arts when a single test did not make much sense. The portfolio serves as an assemblage of the student's work over time. It contains a number of individual pieces, both rough and finished, in an arrangement established by the student in collaboration with the teacher. Both the separate pieces and the assemblage can be rated by a jury. The idea of a portfolio was quickly adopted by teachers of writing, first at the college level, where single tests or writing samples were suspect, and later at the primary level, when students produced a variety of disparate works.

In the 1990s emerged the idea of raising the performance portfolio to the state or national level. But can portfolios satisfy the demands of large-scale assessment? Freedman (1993) scrutinizes four attempts at large-scale portfolio assessment: Arts PROPEL from the Pittsburgh school district, the Primary Language Record for elementary students in England, Vermont's statewide assessment of fourth- and eighth-grade portfolios, and a large-scale national examination for the completion of secondary schools in Great Britain. While applauding all of these experiments, Freedman also points out that they are troubled, that
portfolios are hard to rate with any degree of reliability, and that it is hard to standardize the collection of material and to guarantee that all submissions are a student's own work. Her questions are also raised by Daniel Koretz of the Rand Corporation, who investigated Vermont's inter-rater reliability and found it wanting, and who noted that teachers who use portfolios often want to accomplish two things: to improve what goes on in the classroom and to assess student progress accurately (Black, 1993). In this way, portfolios are used by teachers as formative assessment; they provide teachers with information about the student that is then used to create a new understanding of the student's knowledge and abilities so that learning goals can be modified. This purpose carries with it the implication that the portfolio will be localized and accommodated to the classroom if not to the student; it is also in direct conflict with the purpose of large-scale assessment, which is to standardize the measurement of student accomplishment.

So there is an apparent discrepancy between the purposes of portfolios at the classroom level (how teachers use them) and the district or state levels (how portfolios can be used to measure learning). The appeal of portfolios is that they are a grass-roots movement on the part of teachers to gain control over the process of assessment and to offer something back to their students that, unlike externally created tests, takes into consideration the context of the classroom. Research on the effects of large-scale portfolio assessment focuses on the reliability between raters (clearly an important concern) without looking at either the change in classroom interaction or how portfolios function across sites to enhance teaching (Baker, Haman, & Gearhart, 1993). And although portfolios are created by individual students, which means that they will contain individual differences in terms of perception of learning, large-scale portfolio assessment cannot take into account the individual nature of portfolios. In fact, the purpose of large-scale assessment is to weed out individual differences, a top-down statistical approach that is at odds with the bottom-up appeal of portfolios. Theoretically, then, there appears to be a mismatch between portfolios and large-scale assessment.

Within this larger context, the present study was undertaken by the National Research Center on Literature Teaching and Learning. Following a survey of the current uses of portfolios (Kolanowski, 1993) as well as of the literature on portfolios, the project focused on a series of teacher-initiated studies within the context of state-mandated assessment. The two states chosen were Connecticut, where the emphasis is on program assessment, and New York, where the emphasis is on individual assessment. Our aim was to follow the teachers as they worked out the answers to the questions they had about implementing portfolios in their classrooms. In this project, the teachers themselves are the research team; the Center's function is to assist them, to enhance communication among the researchers, and to explore
any common threads, particularly as they might shed light on the concerns of larger entities like the state educational agency.

**THE PRESENT STUDY**

We wished to document how different teachers in different contexts used portfolios in their literature classrooms, with an eye to exploring implications for large-scale uses. We worked with 14 teachers at seven different sites, with a fairly equal distribution of middle- and high-school-level classes and a variety of communities (rural, urban, suburban). For the most part, the teachers joined the project because they were interested in portfolios and because they believed that portfolios might be one way of helping effect the kind of changes in their teaching practices that they desired. They did not see the project as focusing on assessment only, but on the structure of the classroom and the shape of instruction.

We innocently assumed that the portfolios produced at the end of the year by the teachers would be fairly similar, and that what differences did occur would be due in large part to the communities that house the schools. What we found, however, were differences in approaches to portfolios that were more complex than community differences or lack of consensus about what it means to be a "good" student. We found that different "frame factors" (Dahlof, 1971) or contexts created fundamentally different metaphors for the portfolio and that, ultimately, these metaphors were not compatible.

The idea for metaphoric analysis emerged as we examined both the literature on portfolios and the case-study reports described below. We found that different people used different metaphors to explain their use of the portfolio. Some followed the basic "artistic" metaphor, but other metaphors emerged: the log, the diary, the certificate, the exhibition, the anthology, the museum, the mirror, the title (we will explore the implications of these later).

**Case-Study Methodology**

The data for the case study part of this report come from interviews and classroom observations with the four teachers from New York participating in the "Portfolios in the Literature Classroom" research project. The original purpose for the case study was to provide one graduate student with an opportunity to practice her qualitative research skills. The four portfolio metaphors provided by these teachers proved so irresistible, however, that we conducted a critical analysis of the year-end reports of an additional nine teachers (one teacher dropped out of the project). Teachers and schools are listed in Table 1. These teachers are all either junior high or high school English teachers in Connecticut and New York. Data for this particular analysis were collected during the project's first year. The teachers selected for case study represent a range of contexts and experiences. Nancy Lester and Anne Kuthy are
from a suburban high school with a population that is mostly white and college-bound; Carol Mohrmann works in an inner-city middle school with a large minority population; and Joseph Quattrini teaches in a small and quite rural high school, of which almost the entire population is white and from a low-income bracket.

Table 1. Teachers and schools participating in the portfolio project.

<table>
<thead>
<tr>
<th>School</th>
<th>Teachers</th>
<th>Target Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danbury</td>
<td>Rich Harris</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Suzanne Heyd</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Charles Phelps</td>
<td>9</td>
</tr>
<tr>
<td>Groton</td>
<td>Deane Beverly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marion Galbraith</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Pam Keniry</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Carol Mackin</td>
<td>7</td>
</tr>
<tr>
<td>Old Saybrook</td>
<td>John Hennelly</td>
<td>12</td>
</tr>
<tr>
<td>Plainville</td>
<td>Christine Sullivan</td>
<td>10</td>
</tr>
<tr>
<td>New York</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canajoharie</td>
<td>Joe Quattrini</td>
<td>10</td>
</tr>
<tr>
<td>Schenectady</td>
<td>Carol Mohrmann</td>
<td>8</td>
</tr>
<tr>
<td>Shaker</td>
<td>Ann Kuthy</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Nancy Lester</td>
<td>12</td>
</tr>
</tbody>
</table>

Before the project officially began, teachers were visited and interviewed about their interest in portfolios in the literature class. They were then asked to answer questions about program assessment, about their own methods of assessment, about their three-year plan for the project, and about what they expected to gain from the experience.

We sought to work with teachers on articulating their own theories of teaching and learning, rather than impose a theory on classroom practice. Most of the first year of this study was, for the teachers, spent in trying to answer the question "What am I trying to accomplish with this portfolio?" Then, during mid-year interviews, initial expectations and statements were modified as teachers grew more comfortable in their classes and with the researchers.

Most data for the case study came from the original goals as articulated by the teachers, from discussions at quarterly meetings of all the teachers in the project, and from interviews and classroom observations scheduled after the mid-year marking period. The researchers also collected anything that the teachers wanted to share in terms of reports, speeches, evidence of student learning, and journal entries. Since one of the goals of this project was to articulate
what it is about portfolio assessment that makes it so appealing to classroom teachers, any
information that the teachers could offer was noted. The interviews focused on what was going
to go into the portfolio and who would select the pieces, and who would see the portfolio.

Report Analysis Methodology

All of the teachers in the project wrote reports of their work in the first year. Some of
these were jointly written and some were written by each teacher in a school. In addition to
the four case-study teachers, there were six other teachers who reported. These were analyzed
by the second author using the technique of content analysis and in particular looking for a
guiding metaphor or set of metaphors in each report. For the case-study teachers the analysis
was simply to confirm the findings of the case-study; for the other reports, the analylsis was
to generate additional metaphors and construct the framework outlined later in Table 2.

RESULTS: THE CASE STUDIES

The following case studies of four of the fourteen teachers involved in the Literature
Center project show, in part, how diverse are the expectations they placed upon portfolios.
They also show how a framing metaphor emerged over time in each context. This is not to
say that the teachers are oblivious to the concerns of large-scale assessment. On the contrary,
the four teachers are primarily interested in how portfolios affect policies and procedures first
in their classrooms, then their schools, then their districts. The possibility of using portfolios
to create programmatic changes in instruction cannot be ignored; although it is often seen as
secondary to the demands upon student assessment, it becomes primary in the eyes of the
teacher.

The following descriptions are perhaps overly brief, due to constraints on the length of this
paper. We provide what we hope is just enough detail about expectations, community, and
outlook to explain each teacher's metaphor.

Teachers and Their Frames

Suburban

Both Anne Kuthy and Nancy Lester worked for the same school district. Anne Kuthy
indicated that standardized tests were very important in the district: "Budgets have been sold
on the basis of test scores. There's a lot of pressure." Nancy Lester, however, admitted to
being much less aware of test pressures and, therefore, much less constrained by them.

Anne Kuthy worked with a tenth-grade class "of above average ability." Being both a
teacher and an administrator (she is Supervisor of English for the district), she has only one
class. She indicated that, when evaluating student work, she looked for originality, interest,
and personal growth. She indicated that reader-response theory underlay her evaluations of student work: "The exciting thing about reader response is that it allows for such a high degree of individuality." As we worked with Anne Kuthy during the year, it became clear that she never forgot the importance of those mandated tests; perhaps this is why she placed so much value on individual response.

At first she was not sure about how she would create a portfolio. When asked about her vision of a portfolio in literature, she wrote:

I don't know if I can answer this completely. I think the literature portfolio will evolve as we progress through the year. I will begin with reading logs, reader response journals, and critical essays. I would like to include my narrative about each student's classroom participation, self evaluations, parent responses, creative pieces related to the literature, art work, and some type of alternate assessment project culminating the year's work.

Anne Kuthy was concerned with the "how-to" of creating a portfolio, the real structure that could be produced at the end of the year. She was also concerned with consistency of grading across projects. And she wanted "a unique and interesting" final project. So Anne Kuthy's goals were to figure out what would go into the portfolio and how the portfolio would be different from regular grading—what would make the portfolio special.

But what is consistent in all her answers is the word "assessment," which is something that "teachers struggle with on their own." They do not talk to each other about criteria or new methods of grading. Perhaps because she holds an administrative position, she is well aware that "changing the assessment strategy will have a major effect on a program. Thus, if we have high quality assessment that looks at many aspects of student learning and that encourages critical thinking, we will have curriculum that does the same." Even though this was not on Anne Kuthy's agenda as an area to be investigated, it was clear that she was interested in curriculum changes that would be a result of portfolios.

At the initial interview Nancy Lester was bothered by the lack of guidance on the part of researchers. Finally she asked, "Oh, so this is a grading project?" It was hard for her not to have clear goals; in her own classroom, she is very clear on her expectations and standards. Nancy Lester chose to work with a twelfth-grade advanced placement class. She also indicated that she was unaware of the impact of standardized testing in her district, although she was aware of state demands to justify grades and to remain accountable to parents.

The initial perusal of Nancy Lester's answers gave us an indication that she valued text-centered reading and writing, and the development of writing skills. She did not indicate that her students would have any responsibility in the evaluation of their own work although she mentioned the possibility of including peer editing and self-evaluation without any concrete examples of how she would include these. Months later she said that she wasn't the sort of
teacher who thought up "cute little activities" for her class. She is, quite simply, intensely academic. Her only classroom tools were reading, writing, and talking.

Nancy Lester's goals were rather introspective. She wanted to work out a rubric to evaluate class participation, "since discussion of literature is integral to the course." She also wanted to "focus on defining and documenting the 'fudge factor' that most English teachers I know implicitly include in their evaluating of English students. I hope that in defining mine, we can strive for consistency in standards and expectations in all our classes." Another goal involved communication. She said she tried to call parents "when their children have said or done something noteworthy, in addition to when they have fallen below expectations." But, she said, "communication with teachers is more difficult, and I would like to come up with ways of sharing my students work with them."

**Rural**

In his answers to the initial questions, Joe Quattrini said that what he looked for in student reading and writing was development of writing skills, mastery of conventions, and critical stance. After scrutinizing his answers, it became clear that what he valued would be the ability to make connections and to look at a text from more than one perspective—depth, not breadth, of coverage. And something else that became clear is that, for Joe Quattrini, portfolios were not an answer to the problem of assessment, but an experience unto themselves.

Unlike both Nancy Lester and Anne Kuthy, Joe Quattrini expressed little interest in how parents would perceive portfolios or how they could participate in the experience. At first it was not clear as to why this was so, but in November Joe wrote in his notes, "Some parents were less than enthusiastic about responding to their kids' poems and short stories. Regarded as homework for them, I guess. Others were happy to see their kids' work." Then in December, "Most parents are working, and aren't interested in spending time reading things, even if their kids wrote them. A little disappointing, but not really a problem." Perhaps his earlier lack of concern with parents was actually an intuitive understanding of his community.

Joe had the support of his administrators. Anne Kuthy and Nancy Lester had token support from theirs, with the clear understanding that as long as test scores were not affected, new classroom practices could be tolerated. (However, Anne Kuthy's superintendent also told her, "Be careful what you model, because other teachers will think they will need to do what you do.") Joe, on the other hand, reported both to his principal and his superintendent about progress on the portfolio project. Like Anne Kuthy, Joe understood this new tool to have the potential to shape instruction and to change programs, and Joe was very clear on the changes he wanted. He wrote, "For a change, assessment will guide instruction, and may even help to change instruction toward large-scale integrated activities. In this way, the portfolio can be
an agent of change." This is the heart of Joe’s involvement with the project. He was dissatisfied with state-controlled exams and competency tests, which tested on decontextualized knowledge and which (he felt) were insulting to teachers’ professional ability and knowledge. He wanted to see portfolios bring about school-wide change in terms of instructional and assessment activities. In addition, Joe expressed the hope that "collegiality might go past morning nods to actual activities that require collaboration." So Joe’s goals were to effect changes and to get his students to engage in the work, not to perform for a grade.

**Urban**

During the year prior to the commencement of the project, Carol Mohrmann’s school district was in the process of reorganizing—merging the two high schools into one and reducing the number of middle schools from five to three in the hopes that they would be more equitable. Because Carol Mohrmann was so involved in this process, she was not as thorough as the other teachers in examining her goals for the project. Her response to the initial questions was to hand in the newly devised scope-and-sequence chart that the middle-school English teachers in her district had just completed. Carol Mohrmann wrote, "Prior to [the reorganization], each school did pretty much as it pleased regarding language arts. All of the middle school English teachers in the district have been meeting to try to come together on a mutually agreed upon curriculum for [the] middle school English classes. Remarkable enough we seem to have done just that."

It is in the reorganization of the district that Carol Mohrmann placed her hopes for the portfolio project. She wrote that "there seems to be a great deal of interest in the topic of portfolio assessment in all of the middle schools. This seems to be a prime time for initiating such a change. . . . [P]erhaps we can develop this procedure in all of our middle school classrooms. I intend to keep other teachers informed of our progress in the hopes this will occur."

Carol Mohrmann, like Anne Kuthy, was also concerned with the brass tacks of portfolios. At the end of the summer, just as the project was starting, she wrote, "I have purchased hanging file boxes with color coded files. I am hoping to have access to the computer room so the students can do some of their writing on disks." At this point, it appeared that Carol Mohrmann envisioned portfolios as a collection, and she was more concerned with the actual collection and storage of the material than with the evaluative choices that would need to be made (the how rather than the what).

Context has shaped the goals and expectations of these four teachers. It is clear that Nancy Lester and Anne Kuthy, with their high-achieving classes, can take for granted mastery of basic language skills. This permits them to reflect on their own values about what is good
teaching and how learning is demonstrated, and how choices are made. Joe, too, has a similar choice because of his decision to work with above-average eleventh-grade students. But he can also afford to think in terms of district-wide changes because his district is small and relatively stable. Carol Mohrmann, however, cannot take mastery of language skills for granted. She is working with a younger set of students in a school that is racially, socially, and economically diverse. For her, the basic questions—How do I collect these things? How do I store them?—are as important as Nancy Lester's questions about how she grades, or Anne Kuthy's questions about how to make the portfolio different enough to impact curriculum.

A further differentiation is that of focus. Nancy Lester might be said to value knowledge and to be interested in issues of maturity; Anne Kuthy, in her desire to help students develop a voice, would prefer "the practice of quality"; Joe Quattrini, in pushing for depth, would prefer "the practice of maturity." Carol Mohrmann, by basing her work on the scope-and-sequence chart, indicated that the acquisition of skills is what she values over the other domains, although at a much younger level.

If we were to stop here and guess what the portfolios of the students of these teachers would look like, we might conjecture that the portfolios of Anne Kuthy's students would contain plenty of responsive essays and perhaps some narratives, Nancy Lester's students would have produced several critical essays, Joe Quattrini's students would have produced a variety of responses to a single piece of literature, and Carol Mohrmann's students would have produced writings and activities to demonstrate a mastery of skills. But our guesses would be wrong, because the portfolio project, shaped by teachers, also shaped the teachers and their teaching.

**Changes during the Year**

Nancy Lester's AP English students read a great deal, wrote critical essays, and talked a great deal about literature. Because the entire class was being trained to take the AP exam at the end of the year, she had decided that their outside reading would be relatively unstructured. She required her students to read at least six books outside of the classroom during the school year and to keep a response journal. This response journal became the portfolio, measuring what critical essays and a final exam could not: how the students were evolving as readers. It captured what was at the heart of Nancy Lester's teaching, what she had written earlier (but had not thought could be included in a portfolio) about getting students "hooked" on books. But she expressed doubts about this being a "portfolio" because it was just what she would have done even if she weren't involved in the project.

Anne Kuthy was still trying to decide what to put in the portfolio. The work that students had done during the year had been graded when turned in, and she didn’t seem to want to use
the portfolio as a final assessment device. In fact, she was waiting until the end of the year to put the portfolios together, and was wondering what would be included. Just the student's best work? Or all the student's work? Would the portfolio show growth or would it be a snapshot of the student at the end of the year? Anne Kuthy was still struggling with the idea of using the portfolio to communicate her goals to both students and their parents; she really wanted the parents to see them and to comment on them. It seemed that she, too, wanted the portfolio to convey to parents what test scores and report cards could not. She toyed with the idea of having a special parents' night but was discouraged from doing so by her superintendent. It was at this point that Anne Kuthy's district began to plan for a pilot project that would use portfolios in certain grades. Since the plan was that the portfolio would be reviewed not just by the student's then-current teacher but by the student's prospective teacher as well, Anne Kuthy decided that a portfolio should show the student's current ability. Still, months later, she once again indicated a wish to share the portfolios with parents.

At the beginning of the project, Joe Quattrini had outlined his first-year plans. The question that concerned him was: How can we make evaluation and assessment part of the learning, rather than either a byproduct or the sole purpose of other activities? He started by assigning no grades for the first quarter of the year, and when report cards came out, students submitted grade proposals. By the third quarter, he was experimenting with alternate evaluative procedures and asking for student feedback about various methods of grading, although he eventually decided to return to the original process of stating quarter goals and then asking for grade proposals. Joe Quattrini also looked at state, district, and departmental guidelines and requirements; school population; and his own ability to invest in a new idea in terms of time and energy. By the middle of the year he was satisfied that he was meeting curriculum guidelines, pushing his students to take more responsibility for their own learning, and stimulating conversation with colleagues and administrators. He wrote: "Language arts outcomes keep coming up in our discussions, and that's a good thing. It keeps us looking at performance and growth, rather than at grades."

By the middle of the year, Carol Mohrmann was thinking of starting to pull the portfolios together. During the fall, she had worked with her students to prepare for the regional competency tests. She felt quite bound to those tests, she said, "in fairness to the kids. They get tracked by the results. Our scores were high." But spending a semester teaching to a test brings up an interesting question: Should the business letters and persuasive pieces that were taught be included in a portfolio? Carol Mohrmann was trying to figure out whether a portfolio was "everything" or just final products. Like Anne Kuthy, Carol Mohrmann was unsure whether a portfolio should measure growth, or whether it should be a demonstration of ability. She indicated more of a bent towards portfolios as a document of growth in both
skills and in thinking. She talked about the introductory letter as an example of metacognitive work—thinking about thinking. "In thirty-six years," she said, speaking of her teaching career, "we have rarely asked 'What are you thinking?" The metacognitive writing included in a portfolio would address student thinking.

It should be clear by now that portfolios are more than just a classroom assessment device that demonstrates a teacher’s view of the domain of English. And they are more than the product of classroom context and teacher ideology; they are also political tools and professional communication devices. How and why teachers choose to use portfolios in their classrooms is a combination of several factors—not just teacher values, but perceptions of need in the district and community play a part in defining a portfolio’s use. It was at this point in our research that we realized that there were no simple answers to describing how portfolios are used, and that the large-scale implications of portfolios were nonexistent. So we looked beyond differences between these teachers to one remaining common point: the need to name what one is doing and to find a metaphor for one’s work. The preceding details illustrate how such metaphors emerge.

Metaphors

Metaphor becomes "a set of terms that permit one to speak of experience and possibilities, and the mystery and hiddenness of their fundamental reality" (Denton, 1974). Because a teacher’s world is essentially a world of action, teachers are not often in a situation when they must put terms on their actions. Consequently, beliefs are expressed in practice before they are expressed in words (Clandinin, 1986). After watching and talking with Anne Kuthy, Carol Mohrmann, Nancy Lester, and Joe Quattrini, we worked together to express in words what each was trying to do.

Nancy Lester wanted to help her students create an autobiography of a reader. It is true that she was not using portfolios, since portfolios are a collection of work. But the purpose of a portfolio is to present the creator to the outside world (Purves, 1993), and to this ideal Nancy Lester held true. Her students were readers, they interacted with texts, they talked to each other about books. Their response journals were valid and valuable autobiographies of themselves as readers.

Anne Kuthy wanted the portfolio to be a vehicle of communication between parents, teachers, and students. Perhaps her metaphor would be "portfolio as agenda for a conference," in that three people would have an opportunity to view and discuss an event without necessarily having to see it together. The student, in viewing the event, would have some distance on his or her work and this distance could perhaps permit critical thought.
Carol Mohrmann focused on her role as a teacher. In a speech delivered to her district colleagues about the nature of portfolios, she said, "We are no longer gurus with all the knowledge of the world to hand down. Rather we are mediators who encourage creative thought, value judgments, critical thinking, and decision making along with other cognitive skills." Earlier she had said, "I am no longer captain of [the] ship, rather admiral of [the] fleet."

Joe Quattrini’s metaphor could be "portfolio as certificate of membership in a community." He wrote that students "need to be able to use metacognitive language of the discourse community they belong to, but first they must be aware that they’re in one, but first they have to be in one—as full-fledged members." Embedded in the portfolio is the language used by the community of the classroom, as created by its members. The common thought created by a classroom should be evident in a student’s portfolio.

So we have four metaphors: Portfolio is an autobiography, an agenda, the log of a ship that the student sails, a certificate of membership in a community. These metaphors are products of individual classrooms working with specific teachers in specific school districts. What could they have in common? Because if the issue is the use of portfolios in large-scale (summative) assessment, then we need to find commonalties in how teachers use portfolios.

RESULTS: THE SELF-REPORTS

In order to explore further the idea of metaphors, we undertook an analysis of the written reports of the other teachers in the study. There were six written reports prepared in the summer of 1993. These came from teachers in four schools in Connecticut.

John Hennelly was, at the time of the study, lead English teacher at a small high school serving a population that was primarily white and of mixed socioeconomic status. The class he was working with was a senior English course. He felt that the function of the portfolio was to challenge the students to take control and negotiate responsibility for their learning and their assessment. In his report, he wrote:

The common denominator and recurring focus in my instructional growth has been challenging students to assume greater control and responsibility for their growth as writers and learners. The challenge is not so much an I dare you as it is negotiation, negotiation among student, teacher, and curriculum.

Recently, I asked two groups of students to review their portfolio submissions and identify the elements or criteria that they valued in good writing. [The list included words and phrases like "developing ideas/organization," "focus/purpose," "detail," "paint a picture," "transitions," "be passionate/convincing/inspired." ] What this list reflects . . . is understanding and appreciation of writing, but goes beyond to note the importance of style, voice, attitude, and belief. As such, it represents students’ heightened awareness of what makes writing effective.
John’s description suggests that the portfolio and particularly the self-evaluations and self-statements are an indication that the students have become part of the community. It gives evidence that they have adopted the language of the community to talk about themselves and their colleagues. In this sense, taking control is showing how one has assimilated into the community that is the classroom, or in Arthur Applebee’s (1994) terms, how one has become a full participant in the conversation that is the classroom.

Christine Sullivan teaches at a high school in a poor industrial community with a mixed European and Latino population. Her target group was a tenth-grade mixed-ability class. She writes of this class:

Many students knew of each other, even if they hadn’t been in class before. That familiarity may have been helpful in the groups on the one hand, but on the other hand, any long-standing animosities and perceptions could have and did cause some difficulties. Over the years together, a “pecking order” among these students had grown. This project was designed to help students define for themselves what they could and should do. With regard to this aspect, the declarations of achievement in each semi-public evaluation session helped challenge this informal but nonetheless rigid system. Often, once a student’s perception of his or her own work changed, he or she tried very hard to gather evidence to influence others to change their perceptions as well.

... One primary skill that was a predicate to informing those learning or assessment occasions was self-reflection. The ability of high school sophomores, of distinctly different ability levels and attitudes toward school, to become objective quantifiers and qualifiers of their own learning guided much of direct instruction and practice in the classroom. For many students, the acquisition of this skill represented the single largest hurdle of the entire year.

Later in the report, she writes again of the principle of objectivity and how difficult it is to achieve:

The project looked into the effects of maturity and the ability to be objective on each student’s assessment. For several students, including those who performed very well, the final evaluation sessions revealed that although the students “talked” a good game, their permanent, written self-evaluations reveal their uncertainty about personal performance and suggest that issues of closure need to be addressed more directly.

... For those students to whom their own education had long been a thing of mystery, assurance and involvement meant that they could exercise control over the process and over themselves as they charted their progress. This internalization of the process provided an intrinsic motivation for each student and focused the responsibility for learning on the learner.

It would appear that Christine Sullivan’s use for the portfolio is one of developing objectivity and the capacity for self-assessment. She does this within the metaphor of the portrait, which she uses differently from Anne Kuthy in the case study. She is concerned with developing the self-awareness and the satisfaction that comes with it, a set of qualities that Anne Kuthy’s students appeared to have gained.
Marion Galbraith, Pam Keniry, Deane Beverly, and Carol Mackin comprise the reading staff at a middle school in an industrial community with a mixed population. The school is one of three in the district and the one that has students from the lowest socioeconomic group. They submitted a common report, for theirs is a program in which the four teachers work together in a three-year sequence of learning. In that report, they suggest that the portfolio served their reading program by allowing the students to show evidence of growth over time (both in the single year and across the three years of the school). Their first step was to have each student establish goals and to move beyond the simple goal of passing or getting a good grade:

As much as we wanted students to determine their own goals, we also wanted those goals to reflect the goals of the curriculum. As a guide we provided a simplified version of the curriculum goals and asked the students to choose goals from that list which they felt ready to attempt.

Ownership has always been a cornerstone of our reading program. Students make decisions about what they read and the ways they respond to what they read. Now students were taking ownership of not only the portfolios, but the curriculum. The program goals were becoming student goals.

In sixth grade, the concept of goal setting is one with which the students were unfamiliar. In subsequent grades, we realized we needed to help students to think of their work as more than a reaction, to see it as evidence of change, and to make choices about their work. Beyond that we wanted to help students to reflect on themselves as readers, thinkers, interpreters, to begin to understand and consider the types of thinking they bring to a piece of literature and the kinds of thinking in which a piece engages them.

It would appear that the guiding metaphor of the portfolio for these teachers is one of a deed, or a means of giving title and ownership to those who had been tenants or leaseholders.

Still another approach to portfolios is that reported from the fourth school. Suzanne Heyd, Charles Phelps, and Rich Harris teach at a large urban high school with a large number of Hispanics and other ethnic groups. They issued separate reports on ninth-, ninth-, and twelfth-grade classes, respectively. Harris's report speaks of his attempt to get a group of college-bound seniors to undertake self-assessment and of the near revolt it produced. Charles Phelps, an experienced teacher returning to a ninth-grade class after some years with older students, also found the experience a contest of wills. What he sought in the project was to have the students participate in the class: "My goal was to have them read short stories thoughtfully and talk and write about them intelligently using as a framework the organization of the text around literary concepts. Their goal seemed to be to do the very minimum of work necessary to pass."

Later in the semester, in discussing a unit on the novel, Charles Phelps reported that he asked each class to produce, as a class project, the equivalent of a Cliff's Notes study guide to the novel, working in groups.
Predictably some groups produced better work than others, and some group members did very little while others did quite a bit. . . . Most important, however, was that, for the first time, some of the students seemed to take some visible pride in work of quality which they had produced.

[In the end-of-the-year self-evaluations] the papers seemed to me to be honest and thoughtful, and, while I am sure that at least some of the work reflected parental assistance, the voices were clearly those of the students and not someone else. Furthermore, to a much greater extent than at any other time during the year, the writers were beginning to make specific references to the work in their portfolios. Finally the papers were interesting. . . . I sense that in this final project there is evidence of a lessening of the adversarial relationship between students and teacher, and that in English classes at least, some students are now ready to take responsibility for their own learning.

Charles Phelps uses some of the same language as do other teachers, but the metaphor of participation in the class is one that overrides that language and differentiates his classroom and his use of the portfolio from those others who also see it as evidence of growth.

Suzanne Heyd, the final teacher of the group, approaches the portfolio much differently. Her report is entitled "Assessment as Awareness," and she uses as reference points such writers as Natalie Goldberg, Peter Elbow, and Christine Feldman, all of whom take a meditative approach to writing, literature, and the classroom. She opens her report by saying that she took a "meditative spirit" to her work on portfolios. She asked her students to do a "learning analysis" of each piece they submitted. This was a reflection on the process and on the strengths and weaknesses of the writing:

What happens when we are open, receptive, and curious? Each one of us knows that feeling—it is the beginner's mind . . . and it evokes in us a sense of possibility. Openness as opposed to defining, grading, or labeling, connects us to the present moment, giving us the power of awareness and the freedom from our preconceptions and judgments.

. . . Instead of grades and goals for the fourth quarter, each student kept a daily observation log, written in during the last five minutes of each class. The log was a vehicle for students to record the things they noticed, learned, and were aware of in the classroom. I asked them to work on "bare awareness" and record what they actually observed without coloring it with value judgments . . . I kept one, too.

The word "awareness" pervades Suzanne's report. Awareness is a quality that is to become internal to each student; it is an awareness of themselves, of the classroom, of the subject, and of the standards that are expected of them. As they acquire greater awareness and reflect upon it, they become meditative and more passionate about their performance. She concludes: "Perhaps assessment isn't about judgment, it is about knowing ourselves intimately, it is about deepening in the kind of wisdom that only we can know: the wisdom of self-knowledge. It would seem that this turns the notion of assessment around on its heels."
Summary of Metaphoric Constructs

Earlier in this paper we discussed the conflict between educational practice and educational assessment. We would like to point out that much of the tension lies in a conflict of metaphors. Educational assessment often uses factory and industrial metaphors: the school is a factory, the student is a product; teachers work on an assembly line. With this metaphor, learning is linear, and the image of an assembly line or conveyor belt carries a concept of unidirectional learning, stopping only when the four o'clock whistle blows or the belt breaks or the product falls off the line ("drops out").

But practice uses completely different metaphors. Previously, teachers, if pressed, might have used the metaphor of an artisan's workshop for what schools actually were: teachers were the masters, students were the apprentices. This metaphor grants some autonomy to the student, although it still carries with it the concept of some final judgment made about either the student’s abilities or the work produced. But the metaphors that the teachers in this study used indicate that no one metaphor will suffice, that instead a list of metaphorical categories is needed. The specific metaphors we have traced are samples of larger metaphorical groups, which we might designate as in Table 2.

Table 2 is by no means complete. It is primarily a set of metaphors for the portfolio as artifact, and not for the process of creating a portfolio, which might be likened to the writing of a script, the culling of a scrapbook, or any one of a number of metaphors related to assembling and creating. Further, in any one class portfolios can take on many metaphors, depending on their use and the context in which they are being reviewed. And the roles of student, teacher, and system change as the metaphors change, or even as the purpose of the portfolio changes, meaning that the evaluation criteria and evaluators change. Although there may be some common threads among the teacher reports, and some common language, particularly the use of the word "responsibility," one should not be blinded by this commonality to the differences that persist and differentiate the teachers and their classrooms. As we suggested earlier, each metaphor contains within it an implicit drama (and in the table are some of the suggested characters) with an intended narrative (which the characters act).

National roles and metaphors are more ambiguous because, at this point, there is no national portfolio assessment device. But because there are movements towards national standards for judging portfolios, then we need to consider what a national role and metaphor would be. If the student is using the portfolio as evidence of having participated in a program (the certificate metaphor) then the student and the teacher become co-presenters and the district itself either recognizes or denies the evidence in the portfolio. With this metaphor, the national focus would not be on the student but on the district and whether or not the district’s
Table 2. Categories of metaphors for portfolios.

<table>
<thead>
<tr>
<th>When the portfolio is a(n)...</th>
<th>The student's role is to...</th>
<th>The teacher's role is to...</th>
<th>The district's role is to...</th>
</tr>
</thead>
<tbody>
<tr>
<td>agenda</td>
<td>select</td>
<td>respond</td>
<td>arrange</td>
</tr>
<tr>
<td>portrait</td>
<td>outline</td>
<td>guide</td>
<td>provide background</td>
</tr>
<tr>
<td>summary</td>
<td>select</td>
<td>define</td>
<td>judge</td>
</tr>
<tr>
<td>certificate of membership</td>
<td>select and define</td>
<td>administer and set the norms</td>
<td>set bounds</td>
</tr>
<tr>
<td>log or diary</td>
<td>compile</td>
<td>file</td>
<td>measure change or growth</td>
</tr>
<tr>
<td>evidence, testimony</td>
<td>amass</td>
<td>defend</td>
<td>bring change</td>
</tr>
<tr>
<td>mirror</td>
<td>participate</td>
<td>question</td>
<td>honor</td>
</tr>
<tr>
<td>museum/gallery anthology</td>
<td>create and collect</td>
<td>curate</td>
<td>view</td>
</tr>
<tr>
<td>meditation</td>
<td>gain awareness</td>
<td>encourage and guide</td>
<td>affirm</td>
</tr>
<tr>
<td>title or deed</td>
<td>claim</td>
<td>validate</td>
<td>affirm</td>
</tr>
</tbody>
</table>

Certificate is worthy at the state level. (This was the original purpose of the Vermont Portfolio Project: to see if writing programs in schools were indeed having students write.)

The next section will investigate the use of computer metaphors for portfolios. More specifically, the concept of 'hypertext' will be applied to schools and school activities. Readers who are more interested in the practical aspects of portfolios than in theoretical frameworks may wish to skip to the concluding remarks.
PORTFOLIO AS HYPERTEXT

As we pondered the messiness of creating a system of metaphorical categories, we came to see that computers may have permitted a new metaphor for the portfolio, one that honors both the individuality of the creator, the characteristics of the work produced, and the changing roles of student, teacher, program, and system. This metaphor is that of the hypertext, that which is signalled by the storage and search capacities of the computer and the diskette. This metaphor has come to us to be seen as superordinate to the others in that it speaks to the newness of the portfolio and to the challenge it presents to previous ways of thinking about testing and teaching. The portfolio is not simply a collection of papers. It takes on a radically new character that is similar to (perhaps identical to) the radical character of hypertext in relation to traditional views of text.

The Portfolio and Hypertext as Transforming Agents of the Schools

In a hypertext system, there is a writer who produces a web of text spaces, the features of which are such that although they may be read in a linear fashion (like a novel) with difficulty, the web invites and rewards the person who moves around text spaces from space to space following one of a number of logical or analogical chains. The organization of the text has a number of hierarchies and connective points put in by the author. But the reader also puts in other connections as she moves from idea to thought to imagination. Some primitive forms of hypertext include the cento or commonplace book, the volume of essays, the newspaper (including supplements); the omnibus catalog, the comic book, and perhaps the encyclopedia. The distinction between author and reader diminishes, because the reader is in effect a co-creator of the text. In the minds of some critics (Lanham 1994) the hypertext has become an emblem of the postmodern view of text.

Hypertexts are entering the curriculum in a number of ways (Bolter, 1991; Landow, 1992; Lanham, 1994). They are becoming a part of the instructional milieu and in many cases they are becoming the creation of students themselves. The things students are producing for their courses leap beyond the bubble test or even the term paper or research project. The students are creating and participating in games and simulations; making programs, tapes, document files, stet hypertexts; and constructing hypermedia performances as well. The portfolio is the best, if not the only, vehicle for the summary picture of this new world of student performance. As the disputation fitted the ideal academic performance in the age of scholasticism, and the dissertation or thesis the ideal of the age of print, the portfolio fits the postmodern age of hypermedia.
The portfolio is a hypertext in the sense that it is an assemblage or collage of text and nontext materials that purport to give a portrait of the portfolio creator as (in the case of schools) a student in a particular institution. The portfolio is an individual creation and it is intended to be read and recreated by the teacher / reader / judge / employer / critic. It is not read necessarily from beginning to end; it is certainly not linear. In Marshall McLuhan’s language, it is a "cool" medium in which the audience has to participate fully. The reader may look at the portfolio and recreate a portrait of the creator as student, as writer, as human being, as artist, or as employee. Each reader is expected to make something different out of the portfolio. There is no thought of similarity of readings. Each reading depends upon the context in which creator and reader fall. There may be advice, there may be judgment; there may be a job offer; there may simply be encouragement.

If the portfolio is a hypertext, then it is difficult to talk of the reader—there are individual readings. It is difficult to talk of a grade or a measurement of the portfolio—the grade is simply a linear response to a nonlinear document. We do not know what the appropriate response of a judge or a jury to the portfolio is except perhaps acceptance or rejection, which are admittedly subjective responses. It is important to note, however, that in research on performance assessment in writing, the subjectivity of the judgment has been lurking beneath all of the psychometric attempts to create an objective measure, and it is finally unleashed and cannot be put back (Purves, 1992; Baker et al., 1993). It is also difficult to talk of comparability except in the head of the person looking at a number of portfolios. It is also difficult to talk of competence as an abstract concept; there is only the observed performance. And each observation implies a different performance. The portfolio, like the hypertext, depends on context.

**Implications for Education**

What this means for schools and education is that the school serves the student in construction of that student’s portfolio. It serves to provide something common for all students but to allow the student to present her unique performances, as a member of both the school community and the larger community, in a form that can show the totality of her accomplishment in the way in which she wants to present herself. The school is both democratic and unforgiving, for its task is to shift the burden of responsibility for education and the presentation of the self to the student. It is the student who is accountable. The school and teacher are primarily accountable for helping, serving, guiding, facilitating. The school and the teacher encourage various forms of cooperation among students and between students and teachers in order to allow each individual to be self-sustaining and part of the community, to create each student’s hypertext which becomes part of a larger hypertext.
This seems utopian, and it is. It is radical and serves to transform the school from a factory to a marketplace of ideas and activities. It will probably be resisted, and various people will seek to take portfolios and make them look like a complex form of a multiple-choice test. Such a linear psychometric approach will only serve to vitiate the portfolio and destroy the potential of the schools for enabling each student to achieve her maximum performance.

Although one can reach a consensus or accommodation between what is desired by the individual teacher and the individual student on the one hand and the state system on the other, the interests of the two are fundamentally opposed. People in assessment and education have tried to blur this opposition, particularly through such slogans as "authentic assessment," "performance assessment," and even "portfolio assessment." The portfolio represents, we believe, not a blurring but a sharpening of the distinction.

Concluding Remarks

If the portfolio of each student is a hypertext, for a class the students' portfolios are spaces or nodes in a hypertextual web; the portfolios are individual but linked through common assignments, common readings, common metaphors. If we were to place the classroom in a school, we might see similarities and common points, but also differences. In the multiteacher middle school where Marion, Pam, Deane, and Carol teach, there is more similarity among classroom portfolios and their metaphors than in the high schools where Nancy Lester and Anne Kuthy or Charles Phelps, Suzanne Heyd, and Rich Harris teach. Were we to extrapolate to a network of schools, the web expands and the links become attenuated. Each of the classroom or possibly school webs of portfolios might be seen as having some of the characteristics of a community (Berry, 1993; Tinder, 1980). That is to say that the classroom contains a set of shared assumptions and a shared language (Applebee, 1994). But such a community is necessarily small and evanescent. For a given teacher, no two classes form similar communities. Although the metaphor may be constant, the drama of the metaphor will be played out differently.

Is there, then, no role for the state or national agency in portfolios? We think there is. Although one would expect and desire a low intraclass or intraschool correlation of portfolio scores rated by a single rater or a group of raters (the variation among performances might well be high, just as the variation of performances within a single portfolio might be high), one could treat the school as a portfolio of portfolios. Using some form of matrix sampling that would draw a number of portfolios without indentifying the student by name or even by teaching, one can assess, and perhaps rate, the performance of the school (but not of any single student within that school). One could not, however, make comparisons across schools, again because comparability is not the expectation. Again, one could make a portfolio of

21

25
schools without comparisons among the schools in the sample. The purpose of these aggregate portfolios might be to attempt a portrait of a school as a learning environment or of a segment of a state or the nation. The aggregate would be a large hypertext, perhaps as large as some of the "rooms" or "groups" in the electronic "world" of Multiple User Groups on the Internet. The assessment would necessarily be hermeneutic (Moss, 1994).

Such an assessment, however, would be expensive, would require large numbers to serve on the jury, and would be virtually impossible to report out to the press. Would it be worth the expense? It may be that for whatever purpose large-scale assessment serves (and we think there are legitimate purposes), some form of domain sampling and assessment is appropriate, but not a portfolio or a portfolio of portfolios. The portfolio is a time-honored way for the individual to make herself presentable and desirable to an outside jury. A portfolio refers to external standards and is usually judged in the light of those standards. But the judgment is normally individual, perhaps involving some form of head-to-head competition, but often not; unlike the portfolio, large-scale assessment does not deal in individuals, communities, or even classrooms (see Table 3).

Table 3. Differences Between Individual Assessment and Large-scale Assessment

<table>
<thead>
<tr>
<th>Individual Assessment</th>
<th>Large-scale Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selects from the domain</td>
<td>Covers the domain</td>
</tr>
<tr>
<td>Seeks unique accomplishment</td>
<td>Strives for comparability</td>
</tr>
<tr>
<td>Focuses on the whole individual</td>
<td>Focuses on school effects</td>
</tr>
<tr>
<td>Is the responsibility of the student</td>
<td>Is the responsibility</td>
</tr>
</tbody>
</table>

This fundamental difference between the node on the web and the web, the community and the larger entity, the local and the national, speaks to the impossibility and counterproductive consequences of assuming that portfolios can and should become a part of a large-scale assessment project. This does not mean, however, that there should not be a national movement in support of portfolio assessment as a way of viewing the individual student. Portfolios are a superior way of certifying the performance of individuals, of showing the breadth and depth of the student as a student and, in our case, as a user of the language. And they are consonant with the sea change in the nature of knowledge storage, transmission, and retrieval. They are the best classroom assessment device for the foreseeable future. They should be supported for the classroom, required by employers, and accepted as an integral part of admission to higher education in all fields, not merely—as is current practice—in the arts.
These differences appear bland, but if taken seriously they represent a major shift in thinking about schooling and education, and particularly about students. This is a shift that may prove too difficult for the system of a state or a nation to accept. The shift, however, seems to be consonant with the shift that is already occurring with the emergence of hypertext and hypermedia in education.
REFERENCES


