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Teachers and Students

Reclaiming Assessment Via Portfolios

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TEACHERS HAVE PROBABLY ALWAYS UNDERSTOOD THE MEANING OF THE phrase "teach to the test." Evidence confirms this, showing that teachers will base instruction on the content and form of tests, especially when high stakes are attached (Corbett and Wilson 1991; Madaus 1988; and M. L. Smith 1991). Now educational reformers want to make use of this tendency by linking "tests" to portfolios. By setting high standards and developing new forms of assessment more closely aligned with current views of learning and good teaching practice, the reasoning goes, we can transform education. Portfolios, especially, seem to provide the ideal recipe for educational reform because they offer new, more individualized modes of instruction, and because they promise to capture information not easily assessed by other methods. We can use portfolios, for example, to assess students' ability to think critically, articulate and solve complex problems, work collaboratively, conduct research, accomplish long-term, worthwhile projects, and set their own goals for learning (Camp 1993b, 1993a; Mitchell 1992; Wolf 1993). We can use portfolios to assess progress over time and to assess performance under a variety of conditions and task requirements.

Yet using portfolios in a reform movement which counts on assessment to drive instruction is problematic. In assessment situations, especially when "high stakes" are attached—regarding important decisions such as "a) graduation, promotion, or placement of students; b) the evaluation or rewarding of teachers or administrators; c) the allocation of resources to schools or school districts; and d) school or school system certification"

(Madaus 1988, 87)—there is pressure to standardize portfolios because traditional statistical kinds of reliability appear easier to achieve when students are asked to submit the same sorts of assignments completed under the same sorts of conditions (see for example, Koretz et al. 1993). However, many teachers believe that some of the benefits from portfolios stem from their power to motivate students to assume responsibility for learning. Portfolios, they say, offer one of the few school opportunities that students have to exercise their own judgment, initiative, and authority. If we standardize portfolios, we will have eliminated that opportunity. The traditional demands of measurement for reliability and validity, then, appear to be in conflict with the very same characteristics of portfolios which motivate students and enhance student learning.

Along with students, teachers are entangled in the reform dilemma. Educational reform demands highly skilled professionals: teachers who are knowledgeable about learning theory, pedagogy, curriculum, assessment, and child development, who accept responsibility for their students' welfare and development, and who plan and evaluate their own work (Darling-Hammond 1989). Yet many programs aimed at reform fail to engage teachers in the kinds of study, investigation, and experimentation required to undertake the multiple challenges of reform, enrolling them instead in "training" programs designed only to expand particular sets of pedagogical practices and skills (Little 1993). What is needed instead are programs which prepare professionals to play informed and active roles in "defining the enterprise of education and the work of teaching," and an educational climate in which teacher-professionals not only consume knowledge, but generate knowledge and assess the knowledge claimed by others (Little 1993, 132).

Certain approaches to assessment may inhibit this kind of professional climate. Scholars argue that prepackaged assessments "frustrate individual initiative and innovation and limit professional prerogative" even when they are explicitly intended to be tools to help the teacher in the classroom (Pearson and Valencia 1987, 1). Research indicates that standardized tests, along with workbooks, canned lessons, drills, and other "teacher-proof" instructional packages, tend to devalue the professional competence of teachers (M. L. Smith 1991). When policymakers mandate highly prescriptive portfolios, then they may revisit an approach to reform which in the past has led not to the professionalization of teachers, but rather to their de-skilling and deprofessionalization (see Darling-Hammond 1989, 1990; McNeil 1988). If portfolios are highly standardized, their effect in the

reform movement may be the opposite of what was intended because highly standardized portfolios may restrict opportunities for teachers and students to demonstrate individual initiative and ingenuity—qualities which are essential in any significant, long-lasting reform effort.

To achieve substantial reform, policymakers need to work to create an educational climate which encourages teachers to exercise well-informed professional judgment, and teachers, in turn, need to create a classroom climate which empowers and challenges the student. Key pieces of the reform puzzle, it seems, are the roles played by teachers and students.

The Teacher as Technician

With the growth of bureaucracy in education, teachers in kindergarten through twelfth grade schools are under more pressure than ever to follow policies made at the top of the educational system: policies that are "handed down to administrators, who translate them into rules and procedures (class schedules, curricula, textbooks, rules for promotion and assignment of students, etc.) . . ." (Darling-Hammond 1989, 63). Curriculum is sent "down" to the school, and the adjective "teacher-proof" has become part of the educational lexicon. The teacher's role in this scenario is simply to follow the rules and procedures for transmitting approved curricula, for using particular books, and for administering tests designed by others. In sum, in the bureaucratic model of education, the classroom teacher is viewed as a technician who implements policy decisions and initiatives designed by others—or as Linda Darling-Hammond says, a technician who acts as a "conduit for instructional policy, but not as an actor" (Darling-Hammond 1990, 345).

It seems reasonable to argue that the teacher-as-technician role stems in part from assessment policies. Consider the figure below. Although it oversimplifies very complex issues, the figure highlights contrasting policy decisions underlying different assessment scenarios which can impact teachers' roles.

To say what seems obvious, the assessment policies on the right side of the figure can have ironic consequences in the reform movement because assessments which are mandated by external agencies and developed and evaluated by external experts may constrain the professional authority of teachers. External tests limit teachers' freedom to make decisions about what (and when) to teach and what to assess. Moreover, in "Catch 22" fashion, when teachers are treated as mere assessment-technicians, access to activities

Figure 1
Assessment Policies and Teachers' Roles

Issue: Promoting Teacher Professionalism

Initiated by	_____	Mandated by
Teachers		External Agencies
Developed by	_____	Developed by
Teachers		External Experts
Evaluated by	_____	Evaluated by
Teachers		External Experts

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for professional development is curtailed, making it even more difficult for them to assume a professional role (Lucas 1988). Although scoring student writing can be a powerful professional development experience, for instance, relatively few teachers have the opportunity. With few exceptions, scoring of large-scale tests is done by machine, if the tests are of the multiple-choice variety, or by graduate students or groups of "retired and moonlighting" teachers recruited from the vicinity of outside companies (often out-of-state) if actual samples of writing are collected. In 1990, according to Ruth Mitchell, twenty of the twenty-seven states which collected actual writing samples employed outside companies to score them (Mitchell 1992, 39). Thus, even when actual samples of writing are scored, they are typically not scored by the teachers who are involved in helping the students. In the interest of "fairness" as defined by psychometric procedures, or simply in the interest of cost-efficiency, the social consequences of assessment—their impact on students and teachers and schools—has been superseded by statistical considerations (Williamson 1994).

The social consequences of external assessments can be significant. Consider the impact on teachers. This portrait provided by Mary Lee Smith is especially grim:

> . . . if exploration, discovery, [and] integration methods fall out of use because they do not conform to the format of the mandated test, teachers will lose their capacities to teach these topics and subjects, use these methods, or even imagine them as possibilities. A teacher who is able to teach only that which is determined from above and can teach only by worksheets is an unskilled worker. Far from the reflective practitioner or the empowered teachers, those optimistic images of the 1980s, the image we project of teachers in the world after testing

reform is that of interchangeable technicians receiving the standard curriculum from above, transmitting it as given (the presentation manual never leaving the crook of their arms), and correcting multiple-choice responses of their pupils. (M.L. Smith 1991, 11)

As Lorrie Shepard puts it, externally mandated, standardized tests "reduce both the status and the professional knowledge of teachers" (Shepard 1991, 234). Portfolios too may reduce the professional status of teachers, if contents are narrowly prescribed or if high stakes are attached (see Callahan, this volume; Gomez et al. 1991; and Roe 1991). Like other kinds of external tests, prescriptive portfolios limit teachers' authority to make decisions about what to teach and what to assess.

The Teacher as Professional

Teachers play a very different role, however, in schools where they use portfolios not only as tools for instructional decision-making in their own classrooms, but as focal points for department and schoolwide collective discussions about teaching and learning—in short, for internal accountability. And, when portfolios are systematically analyzed and the results communicated beyond school walls, portfolios serve local external accountability purposes as well. In these schools, teachers are reclaiming responsibility and authority for assessment.

In the mid-eighties, teachers in a junior high school in Oakland, California, were concerned about the writing performance of the students at the school, so they decided to ask their students to create selective collections of their writing from all of their classes (Murphy and Smith 1990). Students filled these portfolios with writing from several subject areas. When the teachers sat down to review the students' portfolios, they worked in pairs. They scored the portfolios along particular dimensions, then traded portfolios and talked. They wrote comments on the portfolios—and talked. They made comments like these:

"His social studies paper is fine. I wonder why this one in English is so bad."
"Did you have students cluster here?"
"Look at how this student was dealing with audience."
"Maybe it's because of the way this assignment is framed, you don't get those little plot summaries or that awful formula writing."
"They're not revising. They're just copying the stuff over, making it neat."

The teachers' conversations were one part of their effort to gather and interpret data about what the students at the school were learning about writing, including the extent to which students were revising as opposed to recopying. As the teachers read the students' portfolios, they systematically recorded their observations of students' revision strategies. Along the way, they also made less formal observations about other things they were seeing in the portfolios. And also along the way, they gained a new sense of power and authority because they were doing their own research on problems of immediate relevance to their teaching. Later they discussed their observations as a group and planned action in response to what they had found. Their work benefited both their students and themselves.

While the teachers read the portfolios, and afterwards, they talked about the kinds of activities that helped the students produce engaging writing, about the transformation of dreaded encyclopedia reports into creative journal entries and travel diaries and about the dry lab reports from science which had, thankfully, been recast as letters to friends. They also talked about assignments and activities that didn't work, the tell-not-show assignments that seemed to teach the students little about techniques for engaging audiences and accomplishing purposes. In sum, they talked about what students were learning and what they were not learning and ways to help them learn.

The teachers at this school were engaging in what teachers at Prospect School call reflective conversation (Johnston 1989), the kind of real dialogue through which teachers come to understand the children better and which at the same time engages teachers in reflective evaluation of their teaching activities. Peter Johnston suggests that this kind of activity is likely to produce a community of what Schon has called "reflective practitioners": teachers who "publicly reflect on [their] knowledge-in-practice, and engage in a process of self-education" (Schon, cited in Johnston 1989, 519). It is precisely this kind of collective dialogue which will help teachers become self-educators and make informed and trustworthy judgments about students. But this kind of dialogue is not likely to occur in an environment in which the content and form of the curriculum to be assessed are prescribed in advance. Nor is it likely to occur without institutional support.

Besides talking to each other, the teachers in California talked to parents at open-house, to the school board, and to the PTA. In this way, they created a direct and immediate link between the curricular activities of the school and their community surrounding it. They accomplished some

of the accountability purposes usually associated with external assessment, such as communicating important information about student learning and the impact of instruction at the school, but they did it from the inside out (see also, Wolf, LeMahieu, and Eresh 1992). In this way, they assumed responsibility as professionals.

Portfolio Projects in California

In recent years, the kind of collective use of assessment for inquiry and self-evaluation practiced in schools like the California school described above has been institutionalized on a wider scale in a number of alternative assessment projects, including portfolio projects. In such projects, teachers design and research assessments. In short, they take up the role of specialists. Catherine Jamentz describes the new role played by teachers in the California Assessment Collaborative (CAC):

> teachers in CAC . . . projects are inventing a wide range of assessments: projects, exhibitions, open-ended questions and portfolios . . . Typically project participants engage in a recursive series of activities in which they invent tasks or portfolio designs, test them with students and revise them to assure that they assess the full range of what students are expected to know and be able to do. (Jamentz 1994, 1 and 7)

In addition to the CAC projects, large numbers of teachers in California have helped to develop portfolio systems for large-scale assessments. For example, roughly 120 science teachers "representing all regions of California" served as members of the Golden State Examination Development Committees and collaborated to develop guidelines, conduct research, and outline scoring parameters for the pilot of a large-scale portfolio assessment system for science (Martin et al. 1993, 1). As another example, teachers and administrators from participating schools in six districts met to collaboratively develop and experiment with primary-level portfolio assessments in the kindergarten through fourth grade Learning Assessment Project.

The most ambitious of the California portfolio projects was the California Organic Portfolio Pilot Project in English language arts. Until it became a casualty of the governor's budget cuts in the last months of 1994, it showed promise of becoming a particularly enlightened way to deal with statewide assessment in the English language arts. The intent of this project was to find a way to collect and assess evidence of student learning and accomplishment from natural interactions and activities in the classroom. The rationale was that portfolios of student work could provide rich, di-

verse information about student accomplishments. The policy approach of the California Learning Assessment System (CLAS), of which this portfolio project was a part, was one of "persuasion": an approach very different from that taken in states where sanctions are imposed on staff in schools where students fail to meet specified threshold scores showing improvement (see, for example, Callahan, this volume). As Lorraine McDonnell notes, the assumption behind CLAS was that parents and concerned members of the public would act on reported information by "pressuring for improvement where it is needed" (McDonnell 1994, 405).

In the beginning stages of the California portfolio project, teachers around the state worked with an advisory committee of teachers and other educators, the Portfolio Task Force, to develop a framework for the assessment. The framework was specified at the level of broad dimensions of learning, instead of the content or piece level. That is, instead of submitting a certain number of specified pieces, the idea was that students and teachers would build sets of evidence to demonstrate students' accomplishment in selected dimensions of learning. The plan was that these dimensions would serve as organizing principles for local implementations of portfolio assessment.

The dimensions of learning developed by the Task Force did not encompass everything that students would be expected to know or be able to do. Rather, they represented particular kinds of knowledge and abilities which could not easily be assessed with standardized forms of assessment. The dimensions were framed as processes. For example, one asks teachers and students to show how students "construct meaning," that is, how students

> respond to, interpret, analyze, and make connections within and among works of literature and other texts, oral communication, and personal experiences. Students consider multiple perspectives about issues, customs, values, ethics, and beliefs which they encounter in a variety of texts and personal experiences. They take risks by questioning and evaluating text and oral communication, by making and supporting predictions and inferences, and by developing and defending positions and interpretations. They consider the effect of language, including literal and figurative meaning, connotation and denotation. They reflect on and refine responses, interpretations and analyses by careful revisiting of text and by listening to others. (California Learning Assessment System, Dimensions of Learning in Language Arts, 1)

A second dimension asks teachers and students to show how the students "compose and express ideas," that is, how students

communicate for a variety of purposes, with a variety of audiences, and in a variety of forms. Their written and oral communication is clearly focused; ideas are coherent, and effectively organized and developed. They use language effectively to compose and express thoughts. They draw on a variety of resources including people, print, and nonprint materials, technology and self evaluation to help them develop, revise and present written and oral communication. They engage in processes, from planning to publishing and presenting; when appropriate, they do substantial and thoughtful revision leading to polished products. Through editing, they show command of sentence structure and conventions appropriate to audience and purpose. (California Learning Assessment System, Dimensions of Learning in Language Arts, 1)

Because the framework was open-ended, it provided for a good deal of flexibility in the ways accomplishment might be demonstrated.

The New Standards Project Portfolio

A collaborative, open-ended approach was also adopted in the portfolio pilot of a partnership of a number of states and school districts collaborating to develop performance assessments called the New Standards Project (NSP, 1993). The New Standards assessment system included on-demand tasks, but the part most relevant to this discussion is the work that was done to develop frameworks for assembling and assessing portfolios. The development process in the New Standards Project was similar to the one adopted in California: that is, teachers were brought together to discuss and reach consensus about the dimensions of learning to be assessed in the portfolios (See Myers and Pearson 1996). In addition, there was a concerted attempt to build on the expertise and success of existing portfolio projects around the country. Representatives of many of these projects collaborated with teachers and other members of the educational community to define the dimensions, to select exemplary portfolios, and to explore approaches to assessing the portfolios.

   Not surprisingly, in the first New Standards pilot, dimensions of learning were called "standards." In the 1994 to 1995 pilot, separate standards were expressed for reading, writing, and oral performance (speaking and listening). Students who met the draft standards for writing were expected to: 1) "communicate clearly, effectively and without errors," 2) "write for different kinds of readers using different writing styles," and 3) "evaluate [their] own work" (NSP, Student Portfolio Handbook, High School English Language Arts, 1994).

The standards provided the initial, open-ended framework for the first pilot portfolio. (Later versions were somewhat more prescriptive.) In the initial plan, each piece in the portfolio was to be accompanied by a foreword written by the student explaining which standards were represented in the piece. Any single piece could provide information about more than one standard, and any single standard was usually represented by more than one piece. Many different kinds of evidence might be offered then, as long as the particular standard was demonstrated, allowing students some freedom to decide how to represent their work. Because it was open-ended, the system also addressed a particular challenge faced by NSP: "to design a system that would not intrude on whatever state, district, school, or classroom program was already in place and that would represent primarily a reconfiguration of portfolios that students were already keeping" (Spaulding 1995, 220).

The open-ended portfolio design offered other advantages. For one, it required students to provide information about important dimensions of performance which have not easily been tapped by more traditional methods of assessing writing. For example, information about the scope of a student's ability to "write for different kinds of readers using different writing styles," has not been available in traditional, single-sample approaches to assessing writing. Portfolios, however, invite students (and evaluators) to observe how performance varies from occasion to occasion, how particular strategies and techniques can be adapted for different writing situations, and how writing varies across genre, audience and purpose (Murphy and Smith 1992; Murphy 1994a). In an attempt to capture information about this dimension of accomplishment in writing, teachers in the New Standards Portfolio pilot drafted a rubric for assessing students' "range and versatility." It included the following description of a level four performance on a one to four scale:

- Provides evidence of an awareness of diverse audiences; the writer's attention to public and private audiences matches his/her varied purposes for writing
- Demonstrates the ability to communicate for a variety of purposes; there is ample evidence of the ability to use a variety of genres, forms, and topics in written communication
- Provides substantial evidence that the student's skillful control of a variety of distinctive voices makes the portfolio richer, more interesting and more focused

- Provides substantial evidence that the student has attempted to create a portrait of him/herself as a learner by experimenting, attempting imaginative or unusual pieces, or approaching a topic or text in an innovative way (NSP Draft High School Rubric, June, 1994)

Criteria linked to the rubric were explicitly conveyed to students in the NSP handbook. With respect to range and versatility students were asked to show that they could:

- Write for different kinds of readers using different writing styles
- Write for a variety of purposes
- Write for a range of audiences
- Write in a range of styles and formats (NSP, Student Portfolio Handbook, High School English Language Arts, 1994)

There are definite advantages to a dimensional framework of the kind developed in this project. One is that it makes the evaluators' expectations and standards explicit. At the same time, however, it gives students and teachers some latitude in making decisions about how those standards will be met. In one class a student might decide to include a letter to a friend, an essay (to the teacher), and an editorial for the public. In another a student might decide to include a children's story, a movie review, and a character sketch.

An open-ended framework of this kind can bring other benefits, especially when it is developed in a process which engages stakeholders. In both the CLAS Portfolio Project and in the New Standards Project, a consensus building process was attempted which allowed stakeholders representing various constituencies to have a voice in identifying those elements of an English–language arts education that would be assessed. In addition, all of the portfolio projects described here involved a large number of teachers in the development process. The teachers piloted materials, reported their results, and collectively analyzed each other's portfolios. Not surprisingly, teachers who engage in the portfolio development process value the experience. For instance, participants in the portfolio pilot for the 1993 Golden State Examination in Science reported that "portfolios were the most powerful tool they had used to help them incorporate educational reform and the most relevant staff development opportunity they had experienced" (Martin 1994, 4).

Assessment-development-as-faculty-development can also lead teachers to make significant changes in their beliefs and classroom practices. Karen

Sheingold, Joan Heller, and Susan Paulukonis report, for instance, that 86 percent of the teachers who participated in a project to develop curriculum-embedded assessments noted changes in one or more of the following five categories of their practice:

1. Using new sources of evidence
2. Sharing responsibility for learning and assessment
3. Changing goals of instruction
4. Using new ways of evaluating evidence
5. Changing [their] general view of the relationship between assessment and instruction. (Sheingold et al. 1994, 15)

These changes came about as the result of the particular roles teachers were asked to play. Teachers in the project

> took on a genuine and complex responsibility, which left them in control of their own change, conducted practical inquiry in their classrooms through generating and testing assessment tasks . . . and were provided social support (discussions and other activities with colleagues and experts) to carry out and consider the results of their efforts in terms of student learning. (Sheingold et al. 1994, 29)

Participating in the assessment development process can be a powerful impetus for change; teachers increase their understanding of these new forms of assessment at the same time that they are empowered professionally.

It is worth noting that each of the projects described here put teachers in collaborative roles with assessment specialists to learn from each other and develop new knowledge. The faculty development experience provided in the assessment development process thus differs in an important way from the typical "training" model of faculty development. As Judith Warren Little reminds us, the training model, no matter how useful, perhaps, for preparing teachers for "textbook-centered or recitation-style teaching," and "no matter how well executed," will not enable us to realize the present reforms in subject matter standards, curriculum content, and pedagogy which call for fundamental changes in teacher-student interactions (Little 1993, 132-33). Rather, as Little proposes, reform requires:

> the kinds of structures and cultures, both organizational and occupational, compatible with the image of "teacher as intellectual" (Giroux 1988) rather than teacher as technician. And finally, it requires that teachers and others with whom they work enjoy the latitude to invent local solutions—to discover and develop practices that embody central values and principles, rather than to

implement, adopt, or demonstrate practices thought to be universally effective. (Little 1993, 133)

Current reform efforts call for teachers who are equipped to engage students in the pursuit of genuine questions and problems and to transform their classrooms into educationally rich communities of learners (Darling-Hammond and Snyder 1992), and for teachers who are prepared to make informed decisions about assessment—its purposes and content—just as they are expected to make informed decisions about teaching and learning. This vision of teachers acting as professionals in reform will not be moved forward by top-down tests, or for that matter, by top-down portfolio assessments which specify particular content to be covered and which attach sanctions for noncompliance. Professionalism in teaching calls instead for flexible systems which accommodate diversity in the ways individual teachers, schools, and districts provide evidence of their accountability to agreed upon standards. In addition, teachers will need time and support, as well as opportunities, to engage in frequent and open dialogues about effective ways to enhance instruction and learning through assessment. In sum, teachers will need an educational climate which encourages intellectual growth and professional development.

Student as Independent Learner versus Student as Reactor

In the bureaucracy of today's schools, with a few exceptions, students' roles have been ironically parallel to the roles played by teachers. Relatively powerless, students are most often the recipients of tests and curriculum prepared by others. They have little authority to determine what they will learn, or how they will be assessed, or on what. That authority rests instead with the experts of external agencies or in the classroom with the students' own teachers.

As John Mayher explains, teacher-controlled assessment goes hand in hand with teacher-centered instruction. In teacher-centered classrooms, he says, almost all writing is done "on teacher demand, on teacher-set topics, in teacher-determined forms" and it is assessed by the teacher who functions as "grader and judge" (Mayher 1990, 30). This "common sense" tradition is widespread. Arthur Applebee's recent national study, *Literature in the Secondary School*, indicates that most classrooms remain largely teacher-centered, although there is some concern with student-centered goals and motivation in relation to writing. Alternative, more student-centered approaches to English language arts curriculum, such as the personal growth

model described by John Dixon in *Growth Through English* or the integrated language arts curriculum described by James Moffett, have not had much impact in America's schools.

Well-known exceptions to the teacher-centered approach, of course, can be found in the classrooms of teachers like Nancie Atwell and Linda Rief, who have created student-centered learning communities, where students have some freedom—and responsibility—to shape their education and where independent reading and writing are the core of the curriculum, "not the icing on the cake" (Atwell cited in Rief 1992, 7). In a similar vein, in the literature on portfolios there are frequent calls for students to assume more authority and responsibility for their education in areas in which they have previously had little voice. For instance, along with several researchers who hold similar views, teachers who use portfolios in their classrooms argue that students should themselves be involved in establishing guidelines for their portfolio (Rief 1990; Paulson, Paulson and Meyer 1991; Tierney et al. 1991).

Teachers who use portfolios have devised a number of ways to accommodate a degree of student ownership. In some classes teachers let students include, in "wild card" categories (Camp 1992), whatever pieces are most important to them, along with more specified entries. In other classes, portfolios are designed to showcase the students' best pieces; in others, as in the two large-scale projects described here, portfolio contents are defined via broad guidelines, so that students have room to make choices. These kinds of more open-ended portfolio designs give students a stake in the assessment process, a stake for the decisions they are empowered to make, not just for the consequences of failure.

It goes without saying, of course, that students don't make these decisions in isolation. In a portfolio culture, students make these decisions with guidance and support from their teachers (Yancey 1992c). In portfolio classes, as Mary Perry (this volume) suggests, teachers help students learn to set goals. They collaborate with students in the process. "Portfolios," as teacher Joan Reynolds says, "are purposeful collections of evidence that students have made progress toward goals that they and I have set" (Reynolds 1995).

Teachers also make the development of criteria a collaborative process. Ann Roussea asks her students to generate criteria for their writing that she can use when she evaluates them. She has learned that portfolios encourage each student "to take greater responsibility for his or her own growth as a writer," because each must "review patterns and determine ways in which he might improve." Students initially generate criteria individually. Then

small group and full class discussions follow, and finally a vote to determine criteria for the class as a whole.

Linda Rief uses samples of writing with varying degrees of strengths and weaknesses to guide her students as they generate criteria for writing. She asks the students to read each piece, assign a holistic number (from 1 = ineffective, to 4 = most effective) and write down three reasons for the score. In small groups, students share their criteria for the most effective pieces and reach consensus. The small group discussions are then synthesized and condensed even further on a handout for the students (Rief 1992).

Similarly, in Kathryn Howard's classes in Pittsburgh, students produce wall charts containing lists of qualities the students perceive to be essential to the creation of a good piece of writing. During the year, as the students learn more about writing, the lists are revised. Howard believes these lists are important "because they are student-generated and because they provide a foundation for personal standards and criteria for good writing as well as an internalized and personalized writer's vocabulary" (Howard 1993, 91).

Developing criteria for portfolios, as opposed to standards for individual pieces of writing, is a goal in Jan Bergamini's classroom in Concord, California. Together, students and teacher generate lists of statements about what it means to be good readers and writers. In turn, the statements guide the students' portfolio selections. In this classroom, as in many other portfolio classrooms, assessment is a collaborative process.

It is worth noting that in each of these portfolio classroom scenarios, assessment is *negotiated* by teachers and students. This represents a rather radical change from the traditional classroom assessment scenario, in which the teacher makes all the decisions. In portfolio classrooms, the teacher does not have sole authority and responsibility for assessment; nor is the teacher merely a scorekeeper for right answers on tests. In a portfolio culture, teachers play a much more collaborative role. In turn, students play a much more active role in their own learning and assessment. Assessments are constructed jointly, integrated with instruction, and mediated by social interaction. In a portfolio culture, assessment has become an occasion for learning and an integral part of a collaborative teaching/learning process. This transformation of culture is, of course, the point of reform.

Conclusion

The roles of teachers and students in the bureaucracy of today's schools are often ironically similar. In all areas of schooling, teachers and students must

cope with requirements. Teachers must cope with district curriculum, scope and sequence charts, word lists, schedules, and the like. Students in turn, must cope with workbooks, required reading, tests, teacher-designed topics, and prescribed forms and processes for writing. Requirements, although certainly necessary in the process of schooling, can impart a sameness to the educational enterprise.

Portfolios offer teachers a way to individualize instruction and make it more student-centered, to acknowledge that "the ability to find interesting problems is . . . as important as being able to answer someone else's questions," and that "individuality and invention" are as important as "mastering technique or knowledge" (Wolf 1987, 26).

Portfolios provide a means for both students and teachers to redefine their roles in assessment. When portfolios are not defined by prescriptive menus which dictate particular assignments, they leave room for students to play a more active and generative role in their own education. They allow students to gain some control over the assessment process, and they encourage students to gauge their own progress and development. They provide a useful complement to other assessment techniques available to the classroom teacher and a powerful alternative to "prepackaged," bureaucratic kinds of large-scale testing.

When teachers engage in portfolio practice, they are no longer cast simply in the "teacher-as-examiner" role, as Britton et al. (1975) describe it. Rather, in the process of portfolio construction, teachers act as coaches and counselors. And, in situations in which students and teachers make the examination of portfolios a collaborative venture, both teachers and students become researchers with a range of data that can reveal what students have accomplished and what might be done next (Murphy and Smith 1992).

However, the shift in stance from "examiner" to "co-researcher" can only occur in an educational climate in which teachers are personally and professionally empowered. Professionalism is undercut by prevailing, prescriptive conditions in schools which, as Calfee and Hiebert put it, "steer teachers toward the role of 'meter readers' " in assessment and instruction (Cafee and Hiebert 1987, 45). To change this state of affairs, portfolios need to be linked not to rewards and sanctions for noncompliance, but to policies which support the professional development of teachers.

Teachers need "adequate opportunity to learn (and investigate, experiment, consult, or evaluate) embedded in the routine organization" of their days (Giroux 1988, 133). Like students, they need opportunities to gen-

erate their own curriculum goals and assessment strategies and, as Garth Boomer says, "negotiate." That is, teachers need to be able to negotiate the specifics of curriculum within the constraints placed on the learning situation by central values and principles held by the community at large. Curriculum frameworks and assessment systems need to be flexible enough to allow room for diverse forms of expression, so that teachers and students, instead of simply complying with rigid requirements, "enjoy the latitude to invent local solutions" (Giroux 1988, 133) while honoring those principles and values.

The essence of educational reform is the enhancement of both student and teacher growth. Reformers look to assessment as a means to drive this reform. Yet externally mandated, prescriptive forms of assessment linked to policies that use test results to reward or impose sanctions are not likely to contribute to the professional development of teachers, nor to the development of students as independent learners and empowered citizens who are critically and civically engaged. Portfolios can move us forward, but they must be linked to policies which complement, not contradict, the goals of reform.