

references to related work sparse. Readers are encouraged to suggest additions or refinements on all counts, and make these known to the author.

Readers also are encouraged to suggest key references or bodies of literature that need to be incorporated into our thinking about standards-based learning. Here are the literatures that have been drawn on most heavily thus far:

- the mastery learning and New Standards Project literature referred to previously;
- literature pertaining to the role of standards and assessment in learning generally (e.g. Resnick and Resnick, 1985; Natriello and McDill, 1986; ETS Proceedings, 1987; O'Neil, 1991; Wiggins, 1991; Herman, Aschbacher and Winters, 1992; Educational Leadership, 1993; Stiggins, 1994);
- literature pertaining to what Linda Anderson refers to as the *cognitive-mediational* view of learning, as well as the *receptive-accrual* view (e.g. Anderson, 1989 a, b; Resnick and Klopfer, 1989; Brooks and Brooks, 1993);
- literature pertaining to the restructuring of schools for high performance (e.g., Sizer, 1984; Powell, Farrar and Cohen, 1985; Slavin and Karweit, 1993; Evans and King, 1994; National Education Commission on Time and Learning, 1994; Schwarz and Cavener, 1994; Slavin, 1994; Meier, 1995; Linda Darling-Hammond, 1996);
- literature pertaining to the restructuring of schools for transition to adulthood and work force preparation (e.g., Commission on the Skills of the American Workforce, 1990; Secretary's Commission on Achieving Necessary Skills, 1991; Fiske, 1991; Marshall and Tucker, 1992);
- other literatures pertaining to school organization, including the concept of "full inclusion" (e.g. Stainback and Stainback, 1984; Oakes, 1985; Schaps and Soloman,

1990; Bonstingl, 1992; Pavan, 1992; Elkins, 1987; Wang, Reynolds and Walberg, 1988; Elkind 1989; Praivat 1992; Wang, Walberg and Reynolds, 1992; Elmore, Peterson and McCarthy, 1996; Kohn, 1996; National Commission on Teaching and America's Future, 1996); and

- literature pertaining to student motivation within the context of all the above (e.g. Wang, 1989; Alderman, 1990; Clifford, 1990; Chance, 1992; Powell, 1996);

*CONDITION 1. High expectations are established for learning.* This includes expectations for the breadth and depth of learning, as well as the kind of learning, to be emphasized. As the standards movement in education currently is evolving there is an effort nationally to define dimensions of learning to be mastered in terms of a) the *subject matter disciplines* in which our knowledge traditionally has been organized (e.g. math, science, language, literature); and b) the *process skills* traditionally used in gaining and applying knowledge (e.g. reading, writing, speaking, problem solving) as well as those being used increasingly as we bridge to the 21<sup>st</sup> century (e.g. technological applications, integrative thinking, teamwork).

In addition to these efforts, however, several related lines of work are proceeding which bring a somewhat different definition to high expectations for learning. One is the work of the New Standards project, with its emphasis on thinking, reasoning and problem solving (Resnick, 1987; Resnick and Nolan, 1995). Another is the work of Fred Newmann and his colleagues in the National Center on Effective Schools, with its emphasis on "authentic" academic work which "... involves disciplined inquiry, the integration of knowledge, and producing outcomes that are meaningful to self and others beyond merely demonstrating success in school tasks." (Newmann, 1991, p 62). Both lines of work are far beyond most other standards-defining efforts, and

Newmann's particularly has yielded impressive gains in student accomplishment (Newmann and Wehlage, 1995).

*CONDITION 2. Expectations for learning are translated into standards for learning by a) developing measures and other indicators of student performance that reflect the kind of learning desired, and b) establishing the levels of performance required on these measures/indicators to certify that a student has in fact met the standard of accomplishment desired. Until indicators, measures, and related levels of performance have been specified and functionally aligned with expectations for learning it is not possible to implement a standards-based approach to schooling.*

*CONDITION 3. Each student is responsible for accomplishing each standard for learning, and each school is responsible for seeing that each student is successful in doing so. No more normative standards, and no more unclaimed responsibilities. Also no widely varying expectations or requirements for students from school to school, or from teacher to teacher within a school, but widely varying conditions of learning within and across classrooms to accommodate differences in how students learn and the time and resources needed for learning (a student will need to be permitted to transfer from one teacher to another, or from one school to another, if little progress in learning is being made). In contrast to our present approach to schooling, where expectations for learning vary and the conditions of learning are common, in standards-based schools expectations for learning are common and conditions of learning are varied.*

*CONDITION 4. Each student and his or her parents understands (internalizes), and are able to plan and prepare in relation to, the standards for learning that are to be accomplished.*

Here again there should be no more uncertainty, mixed messages, or confusion on the part of students or their parents about what is to be accomplished in school, or what can be done at home to help a child succeed in school. Also no more unconnected homework assignments, unfocused

parent/teacher conferences, or lack of response to students complaining of "having nothing to do".

Effort is to replace aptitude as the coin of the realm.

*CONDITION 5. Each student, with the guidance and assistance of his or her teachers, parents and peers, will plan and pursue a course of study that leads to steady progress toward each standard of learning that is to be accomplished.* This condition should lead to further reduction of uncertainty, mixed messages, or confusion about work to be done in school, or why it is to be done. It also should lead to less reliance on a teacher or a textbook as the primary sources of information in a school, or fewer instances of working by oneself on projects or occasions when working with others would be more productive. There are endless ways to learn, and endless sources of information to assist with learning. Standards-based teaching and learning will need to take advantage of them all.

*CONDITION 6. Each student and his or her parents are able to monitor progress being made toward each standard for learning that is to be accomplished, and the information that is provided about progress is useful in planning further work.* This condition should lead to the reduction of uncertainty, mixed messages, or confusion on the part of students and their parents about progress being made in school, or what remains to be learned in the immediate or distant future. In a standards-based approach to schooling the assessment of learning becomes an integral and essential part of teaching, and assessment results are used to enhance and report progress in learning rather than sort and grade students.

*CONDITION 7. Each student, with the guidance and assistance of his or her teachers, parents and peers, will assemble samples of work and related forms of evidence to be used in demonstrating to others that a particular standard for learning has in fact been accomplished.*

This condition should lead to less reliance on "pop" quizzes, mid-term or final exams, or term

reports as the primary means of evaluating student work. These means of evaluating student work may still be used, but if they are they will be treated as part of a portfolio of work a student assembles in support of his or her progress toward a standard of learning to be accomplished. Multiple lines of evidence will need to be assembled in this regard, including evidence from state and school administered examinations as well as teacher assigned work, but all such evidence will be organized and presented in a manner that others can use in *judging and defensibly certifying* that a standard for learning has in fact been met.

*CONDITION 8. Each student will receive as much help as needed, over as long a period of time as needed, to assemble a portfolio of evidence that will convince others that a standard of learning has been met.* This is the nature of the student-teacher-school-parent compact that is at the center of standards-based schooling, and that has no counterpart in norm-based schooling. It also is the compact that will cause the nature of school structure and organization to change, the nature of teaching and the job definitions of teachers to change, and the nature of teaching as a profession to change. All such changes combined are needed to change the productivity of our educational system.

*CONDITION 9. Each student will present and defend his or her portfolio of evidence in support of having met a learning standard at each of several "benchmarks" in the schooling process.* Presenting and defending a portfolio of evidence can take a variety of forms, and probably will vary in formality at differing developmental levels (for example two teachers and a parent may serve as a "portfolio review team" at the primary or intermediate levels vs. a panel of teachers and community representatives at the high school level), but verification is an essential feature of standards-based schooling. Students must not only learn; they must also document, display, and defend their learning. And parents, teachers, and community members must judge progress in

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learning against an agreed to standard for learning rather than norm-referenced indicators of learning. The learning accomplishments of a student need to be *verified and certified* in a standards-based system of schooling, rather than taken on faith because a passing grade is received in a course of study.

*CONDITION 10. If certification of accomplishment is denied an appeal process probably will be needed, but more importantly a student must have continued access to Conditions 8 and 9.*

In a standards-based system of schooling there must be opportunity to continue to learn, and to strengthen the evidence in one's portfolio of accomplishment. And there must be opportunity to present one's portfolio of work a second, or even a third time. Each school district will need to determine how long this process can continue, and what happens when a student is denied further opportunity for certification, for an educational system based on effort, opportunity and standards quickly encounters the hard realities of time and resources in its operation.

**PART IV. The Redesign of Teacher Work in Standards-Based Schools**

If student work takes the form that has been described in the previous pages it is reasonably clear how teacher work will need to change as well. Because of the subtleties and complexities embedded in these changes, however, and because they represent dramatic changes in how most teachers in most schools teach today, these will be described briefly in this section of the paper. As in the case of changes in student work the aim of the pages which follow is to provide enough detail for an informed discussion of the proposed redesign to occur among those who read the paper to make recommendations for refining, modifying, adding to, or discarding pieces and parts as needed.

The proposals for teacher practice which follow also need to be recognized as "work-in-progress," for ideas expressed here are also less than fully developed, concepts left largely

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undefined, and references to related work sparse. In formulating these proposals I have drawn essentially upon the same bodies of literature referred to previously in formulating the conditions of standards-based learning, but I also have relied upon a long history of work with teachers and teacher educators engaged in this kind of teaching. Particularly helpful in this regard has been my work with the teacher education faculties at Western Oregon State College; my work with the Oregon Teacher Standards and Practices Commission as it has labored continuously over the past twenty years to align standards for teacher preparation and licensure with changing standards for schools; my work with a three-county coalition of schools, education service districts and institutions of higher education (the Valley Education Consortium) and the State Department of Education during this same period of time to implement a simpler ("goal-based") model of schooling; and most recently my work with high school teachers and their college counterparts in the Proficiency-based Admission Standards System (PASS) projects operated within the Chancellor's Office of the Oregon State System of Higher Education. These "action research" projects headed by David Conley and Christine Tell are among the first in the nation to focus on what teachers must know and be able to do to foster standards-based learning in students, and I acknowledge a large debt to this work in furthering my understanding of standards-based teaching and learning.

Large bodies of literature remain to be integrated into all the above that are not reflected in the literature cited thus far. These include literatures pertaining to the effects of particular instructional methods (e.g. Brophy and Good, 1986; Rosenshine and Stevens, 1986); literatures pertaining to teaching and learning within particular subject areas (e.g., Wittrock, 1986; Cawelti, 1995; Murray, 1996); literatures pertaining to teacher thinking and decision making (e.g., Clark and Peterson, 1986; Shulman, 1987; Cohen, McLaughlin, and Talbert, 1993); and literatures pertaining

to teacher and school productivity generally (e.g., Walberg, 1980, 1984, 1986, and Wang, Haertel, and Walberg, 1993).

*PRACTICE 1. Mapping what needs to be accomplished by students who are under one's tutelage at a particular juncture in their journey toward meeting performance standards.* In Oregon this is carried out in reference to a) COMMON CURRICULUM GOALS and RELATED PERFORMANCE STANDARDS that have been adopted by the Oregon Board of Education for the "benchmark grades" of 3, 5, 8, 10 and 12, and b) curricular and other program related decisions that have been made locally as to who will teach what in which order (scope and sequence) for students to have the learning opportunities they need to meet the performance standards set for each benchmark. The results of this complex mapping task define the broad parameters of one's responsibilities for teaching within a particular teaching assignment, and are defined concretely in terms of helping each child progress toward the level of accomplishment called for in each benchmarked performance standard that lies immediately ahead.

*PRACTICE 2. Charting the status (progress) of each of one's students in relation to the benchmarked performance standards that lie immediately ahead.* Standards-based teaching is a continuous progress model of teaching in that it involves helping students move from one level of accomplishment to another--each more demanding than the last. It also is a model of teaching that carries with it the assumption that learning is hierarchical in nature, though not necessarily linear, and that foundations or building blocks need to be in place for more demanding learning to occur. This is especially the case when students are required to engage in complex reasoning or problem solving tasks, both of which are an aim of most standards-based instructional programs.

A corollary of this position is that for teachers to foster this kind and level of learning they must know where a student is in his or her journey toward each benchmarked standard. This



requires that the assessment of learning become an essential part of teaching, in fact a pre-requisite to teaching, and that teachers are as skillful in assessment as they are in the design of learning experiences. It also means that the state department of education and local schools need to provide teachers the information they have on student learning in a manner and on a timeline that is useful to both students and teachers.

*PRACTICE 3. Informing students and their parents of the standards for learning that lie ahead, and where a student currently stands in relation to them.* Most students and their parents will know generally about the standards of learning to be accomplished at each benchmark in the schooling process, especially those at the benchmark that lies immediately ahead, but a teacher must be sure that there is no confusion or uncertainty in this regard. More importantly, teachers must be sure that both students and parents understand where a child stands with respect to accomplishing these standards, and comprehend fully its implications for the work a student will be pursuing during the school year. Using illustrative samples of student work which reflect both the level of accomplishment to be reached and where a student currently stands in relation to them are probably a teacher's best resources in this regard.

*PRACTICE 4. Designing classroom curriculum, instruction and assessments that will move students from where they are to where they need to be.* This involves the development of units and lesson plans that are aligned with a) one or more performance standards students are pursuing, b) where student stand in their pursuit of each standard, and c) other specifics of context which influence instruction and learning, for example, the availability of time and resources. Good teachers have always adapted instruction to accommodate the developmental levels of students, but in a standards-based system of schooling teachers need to tailor instruction and other learning

experiences to accommodate where students stand in relation to each standard that is to be accomplished.

In this sense units of instruction should be developed to reflect student progress and abilities, though not as formally as in IEP preparation. Standards-based teaching, however, does require pre-instructional assessment and the tailoring of instruction to move <sup>students from</sup> where they are toward ~~the~~ desired standard<sup>s</sup>—and, if one is responsible for benchmark assessments, <sup>λ</sup>determining whether or not the benchmark has been achieved. There is in standards-based teaching and learning a constant tension between tailoring instruction for individuals vs. the class as a whole, or sub-groups within a class, and deciding when to move on at the risk of leaving individuals behind. It is possible to continue to strengthen *process* skills through newly designed units, but difficult to make up for lost content.

*PRACTICE 5. Organizing classroom, school and community resources in such a way that students are able to pursue their instructional plans, and be assisted as needed in their pursuit.*

Sometimes this involves direct instruction, or carefully guided learning within the context of individual or group work. At other times it involves self guided work in a library or on the Internet or with project teams either in or outside of school. The overriding task of a teacher in a standards-based school is to create a broadly-based *community of learners* that will nurture student growth on many fronts. At all times within this community, however, and under all conditions, learning is targeted to clearly articulated standards of performance, and students as well as teachers are monitoring progress in learning against these standards.

*PRACTICE 6. Providing emotional support and assistance as students pursue high standards for learning.* Living with, working toward, and being judged against high standards for academic work is an emotionally as well as intellectually demanding enterprise. As such both

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students and parents are likely to need support and assistance in dealing with the frustration, disappointment, anger, anxiety or worse that accompanies performance in relation to standards, as well as the exuberance, confidence, and sense of pride that comes when high standards are met. Teachers can and will need to deal with this spectrum of emotions in ways that are feasible and appropriate within the constraints of their role and job definition, just as they do in today's norm-based schools, but they need to be aware of the emotional consequences of standards-based schooling and be prepared to deal with them as best they can.

Teachers in most schools, of course, have other forms of assistance to draw upon in doing so. Other teachers, counselors, administrators or resources external to a school can be approached for help. Many schools also have established CARE teams, GUIDE teachers, student support groups, external referral services, and other forms of assistance to students and parents as they deal with the emotional consequences of schooling. These structures and procedures are likely to grow in importance as standards-based schooling is implemented.

*PRACTICE 7. Affirming the dignity and worth of one's students and their parents regardless of the differences they bring to a school, where a student stands with respect to learning goals to be achieved in school, or how slow and hard a student may find the journey toward their achievement.* Standards-based schooling does not change this fundamental obligation which teachers always have had to pupils and parents, but as in the case of the emotional side of schooling, working toward standards is likely to bring it into sharper focus. Differences in learning status, styles and expectations will be accentuated, and the importance of effort--and sustaining effort over long periods of time--will become paramount. The increasing diversity among students in our schools, and among families served by schools, can only increase the complexity of

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standards-based teaching while simultaneously increasing the importance of honoring the diversity encountered.

*PRACTICE 8. Monitoring the progress of each student toward the benchmarked standards being pursued, and helping students become proficient in monitoring their own progress.* Both teachers and students in standards-based schools will have access to samples of and scoring guides for student work that reflect the benchmarked standards of performance expected. Some of these scoring guides (“rubrics”) will be used in common across all schools, but others will be created by faculties within a school or students within a classroom. Whatever their source these guides to scoring student work will provide both teachers and students a clear sense of the quality of work to be done to meet the standard of accomplishment expected, and they will be used by both to continuously monitor the progress being made toward the expected standard of accomplishment. This practice by teachers may or may not involve a formal assessment of student progress, or lead to evidence of progress that will be considered in *certifying* that a student has in fact met a performance standard, but it will provide the information that both teachers and students need to retarget a plan or level of work if progress toward a benchmarked standard of performance is less than desired.

*PRACTICE 9. Retargeting a plan or level of work if progress toward a standard of performance is less than desired.* In many ways this is the most complex and demanding practice in standards-based teaching. Designing initial work plans and monitoring progress toward a benchmarked standard of performance are its precursors, *but if progress is not proceeding as intended* either the plan of work or the level of effort being put forth by a student in carrying out the plan is less than it needs to be. Neither pinpointing the problem that needs to be addressed, nor “fixing it”, will be easy to do.

Yet doing both are essential if standards-based schooling is to work. Since the performance standards will not change, and students are not free to negotiate them away, either learning plans must change, student or teacher diligence must change, or new ways of teaching or learning must be found. Determining which is the right course to pursue, and then pursuing it successfully, will demand the best of everyone involved--particularly when one considers that this kind of troubleshooting and problem solving is likely to be a common occurrence in most classrooms most of the time!

*PRACTICE 10. Tutoring students in selecting samples of work and related forms of evidence to use in demonstrating to others that a particular standard of performance has in fact been accomplished, and coaching students in organizing and presenting this portfolio of evidence to those who are making that judgment.* In Oregon this involves three lines of interlocking evidence: a) selected samples of work from teacher defined assignments, examinations or projects; b) performance on teacher assigned tasks that are common across all schools; and c) performance on state administered tests and standardized assessments addressing state defined content standards at grades 3, 5, 8, 10 and 12. "Certifying" that a benchmarked performance standard has in fact been met requires supporting evidence from all three sources.

As if dealing with three lines of interlocking evidence were not enough preparing a portfolio of such evidence in Oregon is complicated by the fact that at the 10<sup>th</sup> and 12<sup>th</sup> grades, where judgments are made in relation to a *Certificate of INITIAL Mastery*, and at the 12<sup>th</sup> grade where judgments are to be made in relation to a *Certificate of ADVANCE Mastery* and/or admission to a publicly supported institution of higher education (PASS Proficiencies), evidence needs to be assembled for multiple standards of performance (English, mathematics, science, history, etc.).

This puts a tremendous burden for organization and timing on teachers and students alike, and it is

not clear how this is to be scheduled and orchestrated for all students requesting review for a particular certificate. The demands of standards-based schooling on everyone involved are appreciably greater than they are in norm-based schools, and the practical matter of record keeping and reporting adds appreciably to those demands.

*PRACTICE 11. Certifying that a student has met a learning standard (or all standards called for at a particular benchmark), or denying certification and deciding how to help a student further prepare to meet the standard(s) in question.* In our current design for schools a teacher “certifies” that a student has attended class often enough to receive credit for doing so, and attaches a grade of A through F to indicate the level of performance in the class relative to the performance of others. There is no obligation on the part of a teacher to certify that a designated standard of learning has or has not been met, or have students prepared to present and defend a body of evidence to others who must make this certification decision.

In a standards-based school the latter is a central obligation of teachers, either formally or informally. In some schools, or at some benchmarks, teachers may be asked to be the certifying agent. In other schools, or at other benchmarks, they may be responsible only for insuring that students can present their case for certification while others make the certifying decision. In either case they must be sure in their own mind that a student has in fact met the standard(s) of accomplishment needed to be certified before presenting a case formally for having done so. This is a very different form of responsibility than we now ask of teachers, and one that represents a much heavier burden to bear.

*PRACTICE 12. Recording and reporting each students’ progress toward the accomplishment of benchmarked standards.* Both students and teachers will need to record progress in learning to know what next steps need to be taken in a student’s journey toward the

benchmarked standards that lie immediately ahead. Both also will need to report this progress to parents and other teachers, and probably administrators as well. How this is to be done effectively and efficiently remains to be seen, but "electronic transcripts" of the kind being explored in the PASS project in Oregon hold promise. So does the much simpler "merit badge" approach used so successfully in the Central Park East Secondary School in Harlem (Meier, 1995). Reporting in the October 1996 issue of the Kappan Tony Wagner observes that

Working on merit badges serves as a powerful tool to motivate students. This approach makes clear to them what they are learning things for, and it also gives them an opportunity to create a set of high-quality products of which they can be proud. All learning becomes more focused, tangible, and individualized. As a result students stay in school. While the dropout rate approaches 50% in all New York City high schools, the graduation rate at Central Park East is 95%. . . Four-year colleges are impressed enough with the products of this new system of accountability to accept more than 90% of Central Park East's graduates--and they continue to perform well at those institutions. (p. 148)

*PRACTICE 13. Reflection, evaluation, and continuing enhancement of one's effectiveness in fostering the learning progress of students toward benchmarked standards of accomplishment.*

In approaching the transformations needed in teaching and learning as a shift is made from a norm-based to a standards-based approach to schooling, and the school restructuring that is needed to support these transformations, it is unreasonable to assume that all teachers will be immediately successful with all students in all subject areas. Within this context continued growth and development as professionals will take on new meaning for everyone involved, and must be assigned new priorities within our educational system. Reflection, self-evaluation, and self-guided improvement will be a cornerstone in this restructured professional development system, but these practices will need to be supplemented by advanced and continuing licensing systems, staff development programs addressing school or district priorities, personal enhancement programs addressing individual needs or priorities, work force orientation and training programs addressing

regional or state priorities, and meaningful performance appraisal, evaluation and improvement systems within one's school. Without a thoughtful, well organized, and well managed professional development system integrating all of these components, *with focused attention on student success in meeting benchmarked performance standards as its anchor*, the likelihood of all students meeting all standards is zero.

*PRACTICE 14. Reflection, evaluation, and continuing enhancement of instructional programs within one's school and district.* While a student's journey toward benchmarked standards is guided by a series of teachers, *it takes place within the context of instructional programs.* These may vary from one school to another in organization and operation, but they are the vehicles around which curriculum, assessment, instructional resources, time, and teacher job definitions are organized. In most schools they also are the organizational structures within which students will pursue benchmarked standards of accomplishment, and thus require the coordination and articulation of teacher effort within and across grades.

In approaching the design and operation of instructional programs as a shift is made from a norm-based to a standards-based approach to schooling it is unreasonable to assume that all new programs will be immediately successful in providing students and teachers the context that is needed for all students to reach all standards at benchmarked levels. Reflection, evaluation, and continuing refinement in program design and operation will be needed by all who are involved for this to occur, and these activities will need to be applied with the same diligence with which they are applied to individual teacher performance. The two are not separate, and should not be treated as such.