

## The Teaching Standards Movement and Current Teaching Practices

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In contrast to curriculum standards initiatives, the teaching standards movement advocates a broad teaching approach that includes teaching for understanding, skills development in context, collaborative activities, and diversity of content and method. Using this conceptualization to analyze teachers' responses to a survey, we found that their practices reflected the teaching standards approach. In discussing our findings, we note that an awareness of teachers' current achievements might reduce negative views of the profession, and that teachers need support to continue to develop in the teaching standards direction.

Keywords: teaching standards, school renewal, literacy teaching, mathematics teaching

Contrairement aux initiatives en matière de normes de référence curriculaire, le mouvement de l'enseignement standardisé plaide pour une approche d'enseignement étendue qui inclue l'enseignement de la compréhension, le développement des habiletés en contexte, les activités collaboratives et la diversité du contenu et des méthodes. En utilisant cette conceptualisation dans l'analyse des réponses à l'enquête par les enseignants, nous avons trouvé que leur pratique enseignante reflète l'approche de l'enseignement standardisé. Dans la discussion de nos résultats, nous observons qu'une prise de conscience des accomplissements actuels des enseignants risque de réduire les opinions négatives sur la profession enseignante et que les enseignants ont besoin de soutien pour continuer de se développer dans la direction de l'enseignement normalisé.

Mots-clés : enseignement standardisé, renouvellement scolaire, enseignement de l'alphabétisation, enseignement des mathématiques

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Over the past 15 years a movement for school renewal has emerged, especially in North America, that focuses on teaching standards or standards of teaching practice. This movement differs in at least two respects from the more widely known effort to improve schools: curriculum standards, that is, improving schools by establishing detailed learning

expectations, backed by standardized tests.

Educators who advocate the teaching standards approach emphasize engaging students more deeply with school subjects, in part by relating their learning to real-life contexts. They argue that students' learning will tend to be superficial and short-lived unless students are interested in what they are studying, understand it, and as far as possible see its relevance. These educators reject the idea that "doing the same things harder, longer, and stronger will materially improve education" (Zemelman, Daniels, & Hyde, 1998, p. xii). They are opposed to the notion, advanced for example by Tucker and Coddling (1998), that all educators need do is provide "a clear target" and then induce students to "work hard and long" to achieve it (p. 44).

The advocates of teaching standards place teachers at the centre of school renewal. They argue that establishing a set of detailed learning expectations and forcing schools to pursue them will not work. Zemelman et al. (1998) assert that educators cannot improve schools significantly through "systems of high-stakes testing and accountability, linked to elaborate rewards and punishments for students, teachers, schools, and districts" (p. xii). They note that teachers, like their students, must be engaged with the subject matter and understand it deeply, have expertise in making it meaningful to students, and have latitude to exercise their expertise in classroom decisions. As Darling-Hammond (1997) notes, the question in school renewal is not only what students should learn but also what teachers need to know and be able to do to promote student learning.

This article has two main parts. In the first part, we expound and assess the teaching standards approach to school renewal, contrasting it with the curriculum standards approach. In the second part, we examine data from a recent survey of elementary teachers' current teaching practices, using the teaching standards criteria as a lens to understand the survey. We conclude the article with a discussion of the implications of our findings for in-service teacher development.

## PART I: THE TEACHING STANDARDS MOVEMENT

### Background and General Approach of the Movement

Many school improvement efforts have occurred in recent decades. In the United States, a back-to-basics movement surfaced in the 1950s, in part due to reports of World War II recruits' low proficiency in science and mathematics (Goodlad, 1966, p. 9). General books on the shortcomings of public education such as *Why Johnny Can't Read* and *Educational Wastelands*

also stimulated this movement (Goodlad, 1984, p. 2). In the late 1950s and the 1960s, partly in response to the USSR's Sputnik satellite launch, educators moved to increase the depth of academic learning in schools along lines suggested by Schwab, Bruner, and others (Darling-Hammond, 1997; Goodlad, 1966). From the mid-1980s, after the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983), an outpouring of detailed curriculum documents and standardized tests began, which has continued to the present day.

In the United Kingdom, after decades of child-centred pedagogy at the primary level and non-streamed or comprehensive approaches in secondary schools, the Education Reform Act of 1988 established a national curriculum and assessment system that emphasized "a traditional subject approach to curriculum more firmly than at any previous time" (Richards & Taylor, 1998, p. 11). Since 1995, the British national government has placed even greater emphasis on basic literacy and numeracy skills at the primary level, giving less attention to "cross-curricular themes, dimensions, and skills" (Richards & Taylor, 1998, p. 11). In initial teacher education, the British government has mandated a content-oriented approach, with detailed specification of the subject knowledge trainees need to know. The government has also imposed a narrow definition of teacher professionalism by means of guidelines, inspections, and funding sanctions (Furlong, Barton, Miles, Whiting, & Whitty, 2000).

In Ontario, where we conducted our study, the Hall-Dennis Report of 1968 (Ontario Ministry of Education, 1968) advocated an open, student-centred approach to teaching and learning. However, the 1981 Report of the Secondary Education Review Project (Ontario Ministry of Education, 1981) signaled a return to a more prescriptive high-school curriculum. From the mid-1990s, detailed curriculum documents replaced broad guidelines at all levels, first with *The Common Curriculum* for grades 1 to 9 (Ontario Ministry of Education and Training, 1995a, 1995b, 1995c), and then a new set of curriculum documents for grades 1 to 8 and high school (Ontario Ministry of Education and Training, 1997a and b, 2000a and b). Similar back-to-basics shifts have occurred recently in other Canadian provinces, notably in British Columbia.

Most of these school renewal approaches have focused on subject content, with long lists of knowledge and skills that students must acquire. This emphasis accords with the view widespread among liberal-arts faculty, government bodies, and the general public that teaching is largely a matter of transmission. In *A Nation at Risk*, for example, the chief criticism of schools is that they pay inadequate attention to "content," "the curriculum," "the very stuff of education" (National Commission on Excellence in Education,

1983, p. 18). Tucker and Coddling (1998) are critical of disciplinary associations for being too vague in their expectations. They argue, "a student should be able to look at the standards and know instantly what topics have to be mastered, what knowledge has to be gained, and what kind of work he or she has to produce to meet the standard" (p. 44).

Advocates of this approach do not show enough awareness of the complexity of teaching the curriculum. They think that once everyone knows in detail what has to be learned, the process of inducing students to master it is relatively straightforward, though it may be very hard work for both teachers and students. A Nation at Risk, similar to statements from the British government in the 1980s and 1990s, expresses concern that teacher-education programs pay too much attention to pedagogy and not enough to subject matter. "The teacher preparation curriculum is weighted heavily with courses in 'educational methods' at the expense of courses in subjects to be taught" (National Commission on Excellence in Education, 1983, p. 22). The report notes the results of an unnamed survey showing that "41 percent of the time of elementary school teacher candidates is spent in education courses [which] reduces the amount of time available for subject matter courses" (p. 22).

Beginning in the late 1980s, the teaching standards movement emerged with a different approach to school renewal. This "more general, progressive educational paradigm" (Zemelman et al., 1998, p. 7) emphasizes understanding, problem solving, real-life application, and the crucial and complex role of the teacher in learning. By contrast with other largely top-down initiatives, teachers, subject-area specialists, and discipline associations develop the principles and objectives for school reform (Zemelman et al., 1998). For example, key participants in the movement are the National Council of Teachers of Mathematics, the National Council of Teachers of English, and the International Reading Association.

Advocates for the teaching standards movement avoid detailed curriculum lists, proposing instead a smaller set of key goals and processes, accompanied by rationales, examples, and vignettes (Darling-Hammond, 1997). However, the movement, distinctive among progressive initiatives, acknowledges the need for a significant degree of direction in schooling, in part so innovations may spread across school systems. These advocates maintain that people with an intimate knowledge of teaching agree widely on pedagogical approaches, and all teachers should be given the preparation and support they require to implement these approaches (Zemelman et al., 1998). As Darling-Hammond explains, what is needed is a medium-grain set of standards, neither too open nor too detailed.

Some U.S. standards documents . . . represent a curriculum for exposure . . . rather than a curriculum for understanding. . . . Other sets of standards, especially some early state efforts, have been criticized for the opposite reason — for expressing learning goals in statements so vague and general as to be meaningless (“students will learn to think critically,” for example). Neither extreme is helpful for educators. If standards are to support effective teaching, they must find a medium grain form of expression, articulating important educational ideas sufficiently clearly to convey meaning but avoiding over-specification in order to give teachers room to make curriculum meaningful to their students. (Darling-Hammond, 1997, pp. 228–229)

This position is similar to that of Kozol (2000), who states that the question is not whether educators need standards but “with what sensitivities we navigate between the two extremes of regimented learning with destructive overtones, on one side, and pedagogic aimlessness and fatuous romanticism, on the other” (p. xiii).

Many educators are welcoming the teaching standards movement as a basis for reform. For example, the standards are thought to open the way to higher status and greater autonomy for the teaching profession (Darling-Hammond, Wise, & Klein, 1994; Yinger, 1999). Educators view these standards as a framework for preservice and in-service teacher education, teacher certification, and teacher licensing (Borko & Putnam, 1995; Brown & Chadbourne, 1998; Darling-Hammond et al., 1994; Ingvarson, 1998; Yinger & Hendricks-Lee, 1998). In Ontario, the Ontario College of Teachers has incorporated the broad directions of the movement in its Standards of Practice for the Teaching Profession (Ontario College of Teachers, 1999) and uses them as a basis for assessing preservice teacher-education programs and for designing in-service programs.

We end this expository section on the teaching standards movement by summarizing the key elements of the approach, to clarify further the nature of the approach. Briefly, the central principles of the teaching standards movement are as follows:

Teaching for understanding. This is perhaps the dominant theme in the teaching standards literature. Students should learn not just discrete facts and skills but grasp concepts and understand connections and implications. For example, rather than simply learning algorithms in mathematics, they should understand why a particular procedure is effective and be in a position to choose between procedures and adapt them as needed. To promote understanding among students, they should be given plenty of opportunity to engage in problem solving, apply their learning to real-world phenomena, and talk with each other and their teachers about issues and methods. This in turn will lead to greater student interest and engagement and so promote learning for all, a major objective

of the movement (Zemelman, et al., 1998).

Skill development in context. The teaching standards movement is concerned about skill development: students should be able to perform at a high level in the various subject areas. However, the skills must be learned in context, especially in relation to real-world issues. This second component of the approach clearly has links with the first because learning in context facilitates understanding. Further, if students understand, for example, the reason for particular word spellings or grammatical structures, their proficiency will increase in these skill areas (Kosnik, 1998). Finally, learning skills in context rather than by rote will be more interesting and enjoyable for students, resulting again in engagement of a larger proportion of students.

Collaborative activities. Collaboration (e.g., by a whole class, small groups, teacher and students, students from different classes and grade levels) supports the objective of real-world learning in two ways: it creates a learning context more like everyday life, and it teaches collaborative skills needed in the real world. Collaboration is also important in promoting learning for all because it broadens student engagement and draws on the talents of a wider range of students. Further, in the context of collaboration student talk is promoted, in turn resulting in deeper understanding (Peterson, 1992).

Diversity of content and method. The teaching standards movement advocates diversity of content and a range of pedagogical strategies. Diversity of content (e.g., different genres in reading, different strands in mathematics, artistic as well as conceptual learning) appeals to a wider range of students and permits them to express diverse talents. Also, it leads to deeper learning because students see the same phenomena from many points of view. With respect to method, the movement again advocates variety: for example, teacher input as well as student expression; worksheets and drill as well as open-ended problem solving; both phonics lessons (or mini-lessons) and learning to read in context. Diversity of method is essential because different students learn in different ways, and because (as with content) the same phenomena need to be approached in different ways if they are to be understood. A diversity of assessment methods is also necessary to ensure that varied talents and attainments are recognized (Meier, 1995).

#### Assessment of the Teaching Standards Movement

In our view, there are several reasons to endorse the teaching standards approach to school renewal rather than the curriculum standards

approach. The former approach is more in keeping with the kind of learning required in today's world: learning that is conceptual, comprehensive, problem-oriented, applied to real-life situations, and open to constant change. A highly detailed, preset curriculum is not appropriate for present-day schooling, if it ever was (Darling-Hammond, 1997; Drucker, 1993; Meier, 2000). Further, unless students are engaged by a relevant, integrated program of study they will not learn effectively and may drop out of school early. As Meier (1995) says, "to put up with twelve years of serious high-stakes study young people have to want to be there, they need to be engaged learners" (p. 162).

Moreover, empirical studies as cited by Darling-Hammond (1997) have shown that the forced teaching of a detailed, fragmented curriculum with minimal teacher autonomy is less effective than teaching for understanding along the lines of the teaching standards movement. Darling-Hammond refers, for example, to the U.S. Eight-Year Study in the 1930s, which "painstakingly documented how students from experimental progressive schools were ultimately more academically successful, practically resourceful, and socially responsible than matched samples of 1,475 peers from traditional schools" (p. 10). Similarly, in the 1960s a "substantial body of research" conducted on the curriculum reforms of Bruner and others "showed that intellectually challenging curricula and inquiry-oriented teaching produced noticeable learning gains for students" (p. 11). Turning to a more recent case study, Meier (1995, 2000) describes how use of a broadly progressive approach at Central Park East Secondary School in New York resulted in 90% of students finishing high school and going on to successful college careers, despite the fact that they came from a population with traditionally very low levels of high-school and college success.

The problem with the teaching standards approach has not been lack of improvement in student achievement in the classrooms where it has been implemented, but rather an inability to make the innovations "take hold at the system level" (Darling-Hammond, 1997, p. 10). Sarason (1990) also discusses this difficulty. Although supporting Deweyan educational principles and the goals of such bodies as the National Board of Professional Teaching Standards (NBPTS), he maintains that neither Dewey nor the NBPTS has confronted the problem of transforming "the culture of schools and school systems" (p. 132) to ensure that innovations spread from isolated cases to entire school systems.

Although in general we accept the teaching standards approach for the reasons presented above, we wish to offer two caveats, one about

terminology and the other about substance. On the one hand, we do not think use of the word "standards" is essential to the movement (though we have no objection to it): it is the approach that is important rather than this term. As noted, the curriculum standards movement in recent times has favoured a highly detailed curriculum while using the same term "standards." Standards may be detailed, vague, or medium-grained: the word itself does not favour one of these alternatives. Meier (2000) makes this point when, after criticizing the curriculum standards movement at length, she concludes: "Standards, yes. Absolutely. But . . . we need standards held by real people who matter in the lives of our young" (p. 23).

The U.K. case is instructive here. Around 1997 the British government changed the term "teaching competences" in its documents to "teaching standards" (Furlong et al., 2000, p. 149). What this signalled, however, despite the introduction of the word "standards," was the arrival of a much more detailed specification of required teaching practices than any issued before, "amounting to many hundreds of different standards" (p. 151).

On the other hand, we wish to register a major substantive concern about the teaching standards movement: it focuses too heavily on academic learning to the neglect of what might be called life learning. By far the main preoccupation of the movement is with the teaching of academic disciplines. Although links to the real world are advocated, we believe a greater shift in this direction is needed. Goodlad (1966) expressed reservations about lack of attention to life concerns in the somewhat similar 1960s effort in the U.S.A. to deepen academic learning, objecting that "the structure of the disciplines stands at the center of curriculum planning and [determines] the very objectives, organizational patterns, and subject matter" (p. 114). Dewey (1916) stressed that school is not just preparation for life (though it is that) but life itself. Noddings (1992) argued that traditional liberal education, with its heavily cognitive emphasis, is not ideal for anyone, whether academically inclined or not. She maintained that a caring approach to life should be explored in depth in the formal curriculum and experienced in the life of the classroom and school.

## PART II: A STUDY OF CURRENT TEACHING PRACTICES

Although we endorse the teaching standards approach to teaching, we believe it is very important to explore how much teachers already follow the principles of this approach in their everyday practice. Such understanding both avoids reinforcing the teacher bashing so prevalent today, and provides a better sense of the path for teacher development.



Our perception, based on reading the research literature, past experience, and school visits in the course of research and preservice supervision, is that teachers currently apply these principles. In Part II of our article, we report on a recent teacher survey. We did not conduct this survey, but we were given access to the data it yielded.

#### Context and Methodology

In 1999 we studied the teaching practices of a large number of Ontario elementary teachers at selected grade levels, using data gathered by the Ontario Education Quality and Accountability Office (EQAO). In spring 1997, EQAO had surveyed all grade-3 teachers in the province ( $n = 6,885$ ) about their practices in language arts and mathematics teaching, and all grade-6 teachers from a random sample of 200 schools in 78 boards ( $n = 411$ ) about their practices in mathematics teaching. We were allowed access to the data in the context of a comprehensive study that included a review of relevant literature; development of a conceptualization of effective teaching practices; and analysis and assessment of the practices revealed in the teacher survey responses, using the conceptualization we had developed.

Established in 1996, EQAO is staffed by education professionals who are employed by the Ontario Ministry of Education and so must to a degree accept its assumptions and goals. Its main area of activity, at the elementary level, has been grade-3 and -6 student testing in language arts and mathematics. The student tests are "high-stakes" in that the ministry makes public the results for each school and class. By contrast, the ministry does not release by school or individual teacher the results of the teacher survey we used in this study. The introduction to the teacher survey states: "The information you provide in the questionnaire is confidential. . . . It will be sent to the EQAO and will be seen only by EQAO authorized staff. You will not be identified through this process." Furthermore, the ministry does not link the teachers' survey responses to student test results for their school or class.

Accordingly, there is no obvious reason why teachers completing the survey would be influenced by what they think EQAO or the education ministry would wish to hear. It is possible, however, that in a general climate of criticism of teachers and efforts to pressure them through detailed curriculum and standardized testing, teachers' responses may be somewhat skewed toward giving what in their view will be regarded as the right answer.

EQAO designed and administered the teacher questionnaire: we, as

researchers, had no input at that stage. Purposely, the questionnaire did not originate from a particular theoretical model, and the various sections and items were not theoretically connected. In particular, the teaching-standards conceptualization, which we later used in analyzing the teacher-survey responses, was not a basis for item selection and was not mentioned in the questionnaire. EQAO involved practising teachers and consultants in generating items to capture the range of activities likely to occur: the focus was not just on best practices (however defined). Similarly, the scales were designed to give frequency rather than imply judgments.

The questionnaire did not have standardized properties arising from previous use or borrowing from or comparison with other instruments; however, it had a set format and was administered under standard conditions. Before general administration, the survey was tested with a group of approximately 30 teachers, who were asked to suggest additions or deletions and indicate items they found confusing or otherwise difficult to answer.

The questionnaire was divided into the following sections: classroom demographics (e.g., class size, multigrade classes); teacher collaboration; recent professional development; teaching practices (by far the largest section); assessment strategies; professional background; and comfort level in teaching various areas and topics. The questionnaire was of a check-off variety; no open-ended questions were included. The scale used in the sections of the questionnaire considered in our research (those on teaching practices and assessment strategies) was as follows: daily, a few times a week, a few times a month, a few times a year, never, don't know.

EQAO used a computer to read the teachers' responses to the survey and the resulting data were passed on to us. Under the terms of our research contract, we were not beholden to EQAO in any way other than to note, as we do now, that the conclusions to our study of the data are our own and not those of EQAO. To analyze the data, we first did the conceptual work described earlier and then used the resulting summary of the teaching standards approach to identify those items in the questionnaire that indicated use of this approach. This task of course involved considerable interpretation on our part. For example, in an elementary classroom, what is the meaning of "conducting mathematical investigations" or "demonstrating a mathematical process for other students"? Are these activities indicative of teaching for understanding or not? To some extent we relied on our own knowledge of elementary teachers, teaching, and classrooms to answer such questions.

Having chosen the relevant items from the survey, we then analyzed the EQAO data and developed tables to display the frequency of use of

each practice. Because of space limitations we present here only a selection of the tables generated in this way and usually indicate frequencies only for “daily/a few times weekly” rather than for the whole scale. The order of the items in our tables is that found in the EQAO questionnaire itself.

Our study of teaching practices from this pre-established database had several limitations. First, because we did not participate in constructing the questionnaire, we were unable to ensure inclusion of items that would reduce the ambiguity of responses from the point of view of the teaching standards conceptualization. Second, we were unable to create a more teacher-friendly questionnaire, with more positive signals and questions about teachers’ opinions and initiatives that may have produced fuller and more authentic responses. Third, although a large-scale survey of this kind has the advantage of breadth, it should ideally be supplemented by focus-group discussions, in-depth interviews, document collection, and classroom observation, once again to reduce ambiguity and increase the richness of the data. Fourth, as noted earlier, in interpreting the teachers’ survey responses we had to rely heavily on our own judgment of how they understood the various items and what their responses meant. And finally, we had only language arts data from grade-3 teachers and mathematics data from both grade-3 and -6 teachers.

#### Findings

The central finding of our analysis of responses to the EQAO teacher survey was that current teaching practices have many of the features advocated by the teaching standards movement. The extent to which the practices are in line with the teaching standards varied somewhat, according to subject, sub-area within the subject, and grade level. We outline below the evidence we found of adherence to the principles of the teaching standards movement in language arts and mathematics.

**Teaching for understanding.** The main indicators of teaching for understanding in language arts were in the area of reading (see Table 1). (The survey items on writing did not clearly address this topic.) In our view, frequent use (daily or several times weekly) of pre-reading activities, discussion by students of their responses to what they had read, evaluation by students of ideas in the text, and so forth indicated teaching for understanding. We also present in Table 1 the mathematics scores at the grade-6 level that we interpreted as indicating teaching for understanding. These included students using concrete materials to understand and explain new concepts, demonstrating mathematical processes for each other, and applying mathematical rules in real-life contexts. The

percentages at the grade-3 level were very similar to those at the grade-6 level, with the exception that grade-3 students used concrete materials much more frequently than grade-6 students.

Skill development in context. In language arts, we found evidence of skill development in context in both reading and writing at the grade-3 level, as presented in Table 2. For example, students were taught vocabulary in context and used resources in revising and editing their writing. In grade-3 mathematics it appeared that skill development in context was a priority (see Table 2). The relevant items with relatively high frequency were learning to communicate solutions in a clear manner and demonstrating mathematical processes to fellow students. The percentages for grade-6 teachers were very similar to those for grade-3 teachers.

Collaborative activities. In language arts, the teacher questionnaire did not have items directly on collaboration among students. However, the

TABLE 1  
Examples of Teaching for Understanding

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Teaching for Understanding in Reading, Grade 3

On a daily or weekly basis:

- 83% engaged in pre-reading activities
- 65% talked about their responses to what they have read
- 57% evaluated ideas, information, features of text in their reading
- 43% extended their responses to reading through a variety of open-ended activities
- 44% solved problems combining information from their reading with their own experience
- 34% were taught to recognize various levels of meaning within a text

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Teaching for Understanding in Mathematics, Grade 6

On a daily or weekly basis:

- 39% used concrete materials to understand and explain new concepts
  - 67% applied mathematical rules within real-life or authentic contexts
  - 31% conducted mathematical investigations
  - 36% solved open-ended problems
  - 24% invented or created problem-solving activities
  - 15% engaged in mathematical journal writing
  - 62% demonstrated a mathematical process for other students
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questionnaire did address collaboration between teacher and students. When asked how often they used teacher-student conferences in assessing student progress in writing, 5% said daily, 22% a few times a week, and 49% a few times a month. In mathematics, the data provided considerable evidence of the use of collaborative approaches. At the grade-3 level, 19% of teachers said they had their students “work collaboratively to solve problems” daily, 41% a few times a week, and 30% a few times a month. At the grade-6 level the percentages were 32%, 40%, and 21% respectively. At the grade-3 level, 22% of teachers said they had their students “discuss their problem solving choices and strategies in class” daily, 43% a few

TABLE 2  
Examples of Teaching Skills in Context

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Teaching Reading Skills in Context, Grade 3

On a daily or weekly basis:

- 48% were taught to recognize patterns within the text
- 75% were taught to define words in context
- 66% were taught to use larger elements of information contained in the reading as a whole (context cues)
- 36% were taught the structural/organizational conventions of various genres
- 36% were taught to recognize various elements of style

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Teaching Writing Skills in Context, Grade 3

On a daily or weekly basis:

- 59% edited their work
- 75% used resources in revising and editing their writing
- 46% used conventions and features of the various genres

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Teaching Mathematics Skills in Context, Grade 3

On a daily or weekly basis:

- 21% applied mathematical rules within real-life or authentic contexts
  - 61% communicated solutions in a precise and mathematical way
  - 52% demonstrated a mathematical process for other students
  - 21% had conferences (with teachers) emphasizing communication in appropriate mathematical language
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times week, and 26% a few times a month. In grade 6 the incidence was 29%, 43%, and 19% respectively. With respect to peer assessment, however, the incidence was rather low: daily usage and a few times a week combined was 13% in grade 3 and 19% in grade 6.

Diversity of content and method. With respect to language arts content at the grade-3 level, evidence indicated diversity of genres in reading (see Table 3), with a balance between stories and non-fiction forms such as instructions, diaries/journals, or information articles. With respect to method in teaching language arts, survey results suggested considerable

TABLE 3

Examples of Diversity of Content and Method in Teaching

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Teaching Reading Using Diverse Genres, Grade 3

On a daily or weekly basis:

- 95% used stories
- 43% used information articles/reports
- 93% used instructions
- 21% used poetry
- 56% used diaries and/or journals
- 7% used letters
- 5% used plays/drama

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Teaching Writing Using Varied Activities, Grade 3

On a daily or weekly basis:

- 29% wrote for different purposes
- 22% wrote for different audiences
- 34% used material from other media to enhance their writing

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Using Diverse Assessment Methods in Teaching Mathematics, Grade 3

On a daily or weekly basis:

- 57% of students did mental mathematics
  - 60% of students demonstrated what they knew using materials
  - 29% of students answered open-ended questions
  - 30% of teachers collected dated work samples (portfolios)
  - 54% of teachers kept observation notes and completed checklists
  - 32% of teachers conferenced with students about mathematics
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diversity. In teaching reading at the grade-3 level, teachers had their students study (daily or a few times a week) — often in context — phonics (89%), grammar (72%), and punctuation (81%), engage in pre-reading activities (83%), talk about their responses to stories (65%), and look at problems from the point of view of their own experience (44%). In teaching writing (see Table 3), they expected students to write for different purposes and audiences and use material from other media to enhance their writing, although here the percentages were lower. In assessing reading, grade-3 teachers reported using (daily or a few times weekly) workbook exercises (53%), personal-response journals (51%), student reading logs (43%), reading records (37%), oral tests (35%), written tests (31%), miscue analysis (24%), and teacher-student conferences (24%). In assessing writing they reported using (daily or a few times weekly) writing assignments (53%), spelling tests (43%), observation notes (34%), dated samples of writing (33%), teacher-student conferences (27%), and self assessment (26%).

With respect to mathematics content, we found fairly broad coverage at the grade-6 level, specifically the five strands of the Ontario Curriculum (number sense/numeration, geometry/spatial sense, measurement, algebra/patterning, probability/data management). At the grade-3 level, however, number sense/numeration received by far the largest amount of attention (42% daily, 40% a few times a week) while the other strands were not touched on frequently (geometry/spatial sense, for example, was addressed only 2% daily and 15% a few times a week). Turning to method in mathematics, a fairly broad range occurred in both grade 3 and grade 6. The methods employed included use of concrete materials (more in grade 3 than grade 6), problem-solving activities, collaborative work, small-group and whole-class discussion, mathematical investigations, and demonstrating mathematical processes to others. With respect to assessment in mathematics, teachers reported broad use of methods. The percentages for grade 3 are presented in Table 3. The percentages for grade 6 were similar except that demonstrations with materials occurred only 39% (by contrast with 60% in grade 3) on a daily or few-times-a-week basis.

In conclusion, when we used the teaching standards conceptualization to examine data from Ontario's EQAO teacher survey, we found that elementary teachers were already implementing this approach along several dimensions. Although more research is needed, we believe these findings are encouraging. They suggest that, contrary to the pronouncements of public critics of schools and teachers, a considerable proportion of elementary teaching is in line with widespread academic and professional recommendations.

## DISCUSSION

As we argued toward the end of Part I, we believe that the teaching standards movement offers an important alternative to detailed curriculum prescription as a basis for educational renewal. The movement emphasizes the role of the teacher in school reform and advocates a broad approach to teaching, including teaching for understanding, skill development in context, collaborative activities, and diversity of content and method. This approach has potential to increase student engagement significantly, extend school success to a wider range of students, and foster learning of the kind needed in today's complex and ever-changing knowledge society.

Fortunately, as we saw in Part II, teachers' practices already accord with the teaching standards approach in important ways. However, as with any profession, there is room for improvement. The teaching standards movement provides useful direction for ongoing teacher development at both the preservice and in-service levels. And we would add an area for improvement not adequately addressed by the teaching standards movement: connecting academic learning and life learning. We believe teachers are more aware than are school critics of students' general life needs, and this is reflected in their practice. They attend to students' personal problems, try to get to know them, build community in the classroom and school, and work hard to make often-arid content interesting to students. However, along with Noddings (1992), Meier (1995, 2000), and others we think life learning should receive even more attention in schools than at present, becoming fully integrated into the curriculum and the life of the classroom and school.

### Policy Implications

What are some of the policy implications of the findings of this study? We think the positive findings of research on teaching practices (and the negative ones also, of course) should be made available to the teaching profession and the public. In recent years there has been a tendency to underestimate the talents and effectiveness of teachers. Information on their current achievements should be systematically shared with a wider audience, both to help lift the morale of teachers in these times of budget cuts and constant criticism and to give others a clearer picture of the contribution made to the lives of students through the caring, reflective, and innovative practices of teachers.



In keeping with the general tenor of the teaching standards movement, there should be greater acknowledgement of teachers' key role in school renewal. Public bodies should abandon as self-defeating attempts to hedge teachers with a detailed, prescribed curriculum that they are forced to follow without choice or modification. Such attempts lead to teacher frustration and alienation, or to a desperate effort to cover the curriculum, which in turn undermines attainment of goals of understanding, real-life learning, problem solving, authentic skills development, and openness to continued learning — goals that are crucial for a sound education and for well-being in today's world.

Given the key role of teachers in school renewal, there should be much more provision for teacher development than is commonly the case. There are no short cuts to school renewal: it takes time and resources, and teacher development is central. In far too many cases, as in Ontario over the past decade, the introduction of new curriculum has been accompanied by reduction in provision for teacher development, partly in the belief that detailed curriculum will itself significantly increase learning. We have questioned this belief here, stressing that teacher development is essential for school renewal.

We would add that professional development should be co-ordinated on a system-wide basis, around a shared conception of the goals and processes of schooling, a conception of the medium-grain type described earlier (Darling-Hammond, 1997). Teachers and school systems need a sense of everyone pulling together; an explicit vision also provides a basis for bringing governments and the general public on board as far as possible. However, the precise interpretation of this conception, tailored to each setting, has to emerge through a process in which classroom teachers play a significant part.

Social constructivism is currently widely advocated for student learning (Brophy, 2002). The teaching standards approach is social constructivist, in that it sees students being personally involved in their own knowledge development, understanding what they are learning, and constructing knowledge in collaboration with others. We propose that teachers, like students, be supported in constructing their knowledge and practice, both so they model constructivism for their students and so they develop practices that are effective for them and their settings. Even the apparently sound principles of the teaching standards movement should not be imposed on teachers in a top-down manner. The reflection and initiative of teachers must be respected and engaged in the ongoing enterprise of teacher development and school renewal.

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