Curriculum Support and Curriculum Neglect: Second-Year Teachers' Experiences

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INTRODUCTION

Creating or implementing a coherent curriculum¹ has traditionally been among the many challenges that new teachers face. However, standards-based reform policy and high-stakes assessments have focused sharper attention on this demand and generated additional pressure on teachers. It is important to consider whether new teachers receive adequate curriculum support, defined here as sufficient guidance regarding what and how to teach.

Are new teachers receiving the curriculum support they feel they need? Interviews with 50 first- and second-year elementary and secondary teachers in Massachusetts (Kauffman, Johnson, Kardos, Liu, & Peske, 2002) revealed that many felt that they faced a "curriculum void," meaning that they received insufficient guidance regarding what and how to teach. The pressures of standards-based reform exacerbated their frustration. In some cases, the new teachers lacked curriculum materials altogether, while, in other cases, the materials they had were unhelpful because they did not address the state standards that the students were expected to meet. Many of these new teachers described a mad scramble to gather materials and prepare lessons for the next day, which often left them feeling unprepared and unsuccessful. The findings from that study highlighted the importance of written curriculum materials, especially textbooks and the teacher's guides that accompany them, as potential sources of curriculum support for new teachers.

While some research has addressed the availability of curriculum support for teachers in general within the context of standards-based reform (Achieve Inc., 2002; American Federation of Teachers, 2001; Hoff, 2001), little has been written about the extent to which *new* teachers find curriculum support to be adequate. This paper explores this issue further, using data from a quantitative survey of 295 second-year, full-time, public elementary school classroom teachers randomly selected from three states—Massachusetts, North Carolina, and Washington. The focus on elementary school teachers, who are typically responsible for teaching several different academic subjects, allows for cross-subject comparisons. Moreover, second-year teachers are better positioned than first-year teachers to comment on the curriculum, because they are one year removed from the extreme challenges of the first year. Massachusetts, North Carolina, and Washington were selected because all three states have adopted several common elements of standards-based reform. Each has adopted state standards in each subject and has implemented criterion-referenced assessments aligned to the mathematics and literacy standards in at least one elementary grade. Furthermore, each state places pressure on schools by publicizing school-level student achievement data (Doherty & Skinner, 2003).

¹ There are many definitions of curriculum (Oliva, 1997). For purposes of this paper, however, I employ a utilitarian definition that captures the basic work that new teachers need to do: Curriculum refers to "what and how teachers are expected to teach" (Kauffman, Johnson, Kardos, Liu, & Peske, 2002, p. 274). Because of the interdependence of curriculum, pedagogy, and assessment (Wasley, 1994), all of these elements are included in the detailed questions asked of teachers in this study.

This article explores the following questions: To what extent do second-year elementary teachers feel that they receive sufficient direction regarding what and how to teach, in each of the four core academic subjects? What curriculum materials do new teachers report that they receive? Do they report receiving additional support, such as professional development and discussion with colleagues, in using these curriculum materials effectively? If they do receive curriculum materials, specifically textbooks and teacher's guides, how do they use them, if at all?

BACKGROUND

Curriculum Materials as a Source of Support for New Teachers

The literature on the early years of teaching describes a time of extreme challenge and rapid learning (Fuller & Bown, 1975; Lortie, 1975; McDonald & Elias, 1983). This "survival and discovery" phase generally extends into or beyond the second year of teaching (Huberman, 1989). Early challenges and successes influence whether people stay in teaching and, if so, what types of teachers they become (Gold, 1996; McDonald & Elias, 1983). The isolated nature of teaching in separate, closed classrooms severely curtails novices' opportunities for guidance and assistance from their experienced colleagues (Kardos, Johnson, Peske, Kauffman, & Liu, 2001; Lortie, 1975). Teaching thus lacks the "natural induction process" common to most other professions (Huling-Austin, 1990). Research on new teacher induction points to a need for systematic, comprehensive, and sustained support for new teachers, even beyond the first year (Huling-Austin, 1990; Johnson & The Project on the Next Generation of Teachers, 2004).

Decisions about curriculum are among the many challenges new teachers face (Grossman, Thompson, & Valencia, 2001; Huberman, 1989; McDonald & Elias, 1983; Veenman, 1984). They must determine both what to teach and how to teach, often by themselves through trial and error (Feiman-Nemser, 1983; Kauffman et al., 2002; Lortie, 1975). These decisions are especially challenging for elementary school teachers, who typically must make these decisions for several subjects.

Curriculum materials, defined here as the textbooks, teacher's guides, and other printed materials that describe the curriculum and how to communicate it to students, have the potential to support new teachers with their instructional decisions, if they are well-designed. Their contents vary, but typically curriculum materials include some combination of the following: a list of learning objectives, details about the topics to be taught, the rationale for content choices, a suggested sequence, recommended time allocations, suggestions for instructional strategies, materials for student assessment, performance indicators or samples of student work, and specific lesson plans (see American Federation of Teachers, 2001; Ben-Peretz, 1990). Curriculum materials of some sort are present in most classrooms and address the central activities of students and teachers, making them a "concrete and daily" part of the classroom with a "uniquely intimate connection to teaching" (Ball & Cohen, 1996, p. 6). New teachers likely have greater access to support through curriculum materials than through curriculum-centered

interactions with experienced colleagues, such as mentoring, professional development, collaboration, and supervision, because of the time, funding, and scheduling complications that such efforts require (Kardos et al., 2001).

Researchers have noted that curriculum materials are more than just a "representation of the content for instruction" (Ball & Cohen, 1996, p. 7) or "practical tools to use in classrooms" (Grossman & Thompson, 2004, p. 7), as they are commonly viewed. A growing body of theory and empirical research portrays them as potentially educative for teachers (Ball & Cohen, 1996; Grossman & Thompson, 2004; Remillard, 2000; Russell, 1997), particularly if they can support teachers in making decisions by providing detailed information about content, pedagogy, and students' reasoning (Cohen & Ball, 1999). The set of curriculum resources available to new teachers thus can shape their opportunities for professional growth and learning, at least partially affecting the blueprint for the type of teachers they will become (Grossman & Thompson, 2004). Of course, the influence of such materials depends on whether and how teachers choose to use them (Remillard & Bryans, 2004).

Research has consistently shown that many teachers at all levels of experience rely heavily on commercially published curriculum materials, primarily textbooks and teacher's guides, to plan and deliver instruction (Brophy, 1982; Goodlad, 1984; Woodward & Elliott, 1990), but they generally exercise considerable discretion in how they use those materials (Freeman & Porter, 1989; Schwille, Porter, Belli, Floden, Freeman, Knappen, Kuhs, & Schmidt, 1983; Sosniak & Stodolsky, 1993). Sosniak and Stodolsky (1993) describe the appeal of such materials:

Textbooks provide a level of content expertise that few teachers possess for all the subjects they teach, organize content around topics that have some logic, maximize planning time, and provide security for teachers and students alike (p. 272).

In search of this expertise and organization, new teachers are typically more likely than experienced teachers to follow textbooks closely (Brophy, 1982; Grossman & Thompson, 2004; Tyson, 1997). In a longitudinal study of six prospective teachers, Ball and Feiman-Nemser (1988) found that even novices who began student teaching with negative opinions about textbooks and teacher's guides turned to such materials in the absence of other support.

The Policy Context: Standards-Based Reform

New teachers today enter schools in a policy context shaped largely by standards-based reform, which has been implemented, to some degree, in nearly every state over the past decade (Doherty & Skinner, 2003). Two common denominators of standards-based reform policy are state-level learning standards, which dictate what students should know and be able to do, and a statewide assessment system to measure whether students meet those standards. Within these broad parameters, policy and implementation vary by state (Doherty & Skinner, 2003). Forty-eight states and the District of Columbia have adopted academic standards in each of the four core subjects (math, language arts,

science, and social studies), but the clarity and specificity of the standards vary. Some states test students every year starting in third grade, while others test only once at each level—elementary school, middle school, and high school. Some tests are "high-stakes" for students, determining whether they graduate from high school or whether they advance from one grade to the next. The stakes for teachers and schools vary considerably, with possible sanctions ranging from bad publicity to school reconstitution, and rewards including recognition and bonus money. The pressures of standards-based reform are increasing; the federal No Child Left Behind Act of 2001 calls for additional testing and accountability measures to be implemented by 2006 (Doherty & Skinner, 2003).

Advocates of standards-based reform argue that greater standardization and systemic alignment support teachers by providing them with greater certainty than their predecessors had about what to teach and how to teach it (Schmoker & Marzano, 1999). However, whereas many states have adopted state standards and implemented student testing, the "systemic alignment" promoted by advocates has been more elusive. According to a report issued by Achieve, Inc. (2002), states typically maintain a "handsoff" policy regarding curriculum, leaving districts and schools to determine the specifics of how to achieve the standards. However, "all but a handful of school districts lack either the resources or the expertise to craft coherent curricula that will lift students to high standards" (p. 9). In this context of increasing demands, it is important to consider whether new teachers receive adequate support in making decisions about curriculum.

One unintended effect of standards-based reform, as it is being implemented, is the "narrowing" of the curriculum. Based on surveys of public school principals in four states, a study by the Council for Basic Education concluded, "At a time when school budgets are under extraordinary stress, the exclusive focus of the [No Child Left Behind Act's] accountability provisions on mathematics, reading, and eventually science is diverting significant time and resources from other academic subjects" (von Zastrow & Janc, 2004, p. 7). New teachers interviewed in Massachusetts indicate an imbalance in support, with less attention being paid to science and social studies than to reading and mathematics (Kauffman et al., 2002). This raises additional questions about the availability of curriculum support for new teachers in different subject areas.

METHODS

Sampling and Data Collection Procedures

One of the greatest challenges in conducting large-scale research about new teachers is generating the sample. Obtaining complete and accurate lists of new teachers, especially first-year teachers, is nearly impossible, even at the individual school level. In the three states included in this study, I obtained comprehensive lists of second-year teachers from the best available sources. Officials at the North Carolina Department of

Public Instruction granted access to its state database of teachers.² The state education departments in Massachusetts and Washington do not maintain teacher databases, so I obtained access to state teacher union membership lists from the Massachusetts Teachers Association, the Massachusetts Federation of Teachers, and the Washington Education Agency. Because charter school teachers in Massachusetts are not union members, I identified those teachers by contacting the schools directly. The only known groups not included in the Massachusetts and Washington lists are the 1.9 percent of certified educators in Washington who work in districts not represented by the Washington Education Agency, and teachers in five local union affiliates in Massachusetts whose officials did not respond to requests for membership lists.

The lists I received were not completely accurate or up to date, in that they included teachers who were not in their second year, who had left their schools, or were not elementary classroom teachers. Usually, this meant that they were secondary teachers or elementary specialists, such as art or physical education teachers. Some of these inaccuracies were expected because of conservative decisions about whom to include on the teacher lists. For example, the union lists in Massachusetts included many entries with the teacher's name and address but no experience level or grade level listed. Rather than potentially exclude eligible teachers, I included the unknown teachers, aware that the ineligible ones would be sifted out during data collection.

In order to ensure sufficient numbers from each state so that I could conduct within-state analyses, I drew a disproportionate stratified random sample. I stratified the sample by state by selecting a separate simple random sample of 300 teachers from Massachusetts, 286 from North Carolina, and 286 from Washington.³ After removing ineligible teachers, the sample consisted of 439 second-year, elementary, classroom teachers—91 in Massachusetts, 149 in North Carolina, and 199 in Washington.

Because the population of second-year teachers from which the sample was drawn differs in size across the three states, it was necessary in analyses of the full dataset to apply sampling weights to account for the over-sampling and under-sampling (Levy & Lemeshow, 1999). Except where noted, all reported data have been adjusted by the sampling weights (pweight = .172 for WA, .462 for MA, and .366 for NC).

To maximize the response rate, I used persistent data collection strategies (Dillman, 1991), modeled after techniques designed by Kardos (2004) and Liu (2004). In March 2003, I sent all teachers in the sample a letter briefly explaining the study and offering a fifteen-dollar gift certificate for an online bookseller to those who completed the questionnaire. Soon after, I sent the questionnaire with a cover letter, followed after approximately two weeks with a reminder to non-respondents. I subsequently sent an additional four reminders, sometimes with a copy of the questionnaire, at two to four

² Because the North Carolina list would not be updated until the Spring, I instead used a list of first-year teachers from the prior year. Therefore, second-year teachers who had changed schools after their first year would not have been included.

³ In order to include all possible second-year teachers, I included teachers from the Massachusetts Teachers' Association about whom I had limited information, knowing that I could purge them from the sample if they proved to be ineligible. To adjust for the possibility of some teachers being ineligible, I drew an additional 14 teachers from the Massachusetts list.

week intervals until the school year ended. This resulted in the return of 295 eligible surveys for a response rate of 67 percent. Table 1 displays a description of the respondents.

 Table 1: Description of Respondents With Percentages and Counts. Total sample, weighted

and unweighted. (n=295)

	n	%	% weighted		N	%	% weighted
Gender			weighted	Career Stage			weighted
Female	267	90.5	90.8	First-Career Entrant	185	62.7	61.7
Male	28	9.5	9.2	Mid-Career Entrant	110	37.3	38.3
Race				Highest Degree Earned			
American Indian	1	0.3	0.5	Bachelor's	218	73.9	73.8
Asian	9	3.1	2.2	Master's	77	26.1	26.2
African American	13	4.4	5.2				
Hispanic / Latino	6	2.0	2.5	Grade Level			
White	263	89.2	88.7	Primary (K-2)	113	38.3	37.1
Other	3	1.0	0.9	Intermediate (3-5)	168	57.0	58.1
				Primary/Intermediate	14	4.8	4.8
Age				Type of class			
22-29	195	66.1	64.3	Regular education	246	83.4	79.3
30-39	63	21.4	22.1	Special education	21	7.1	8.6
40-49	30	10.2	10.5	Inclusion	12	4.1	5.8
50-59	6	2.0	2.7	Bilingual education	10	3.4	4.6
60-63	1	0.3	0.4	Other	6	2.0	1.7

Due to the protection of the teachers' identities by the unions, the only data available about the full set of non-respondents were their gender (inferred from their names) and the state in which they taught. There is no evident sample bias based on either of these factors. The response rate was almost identical across the three states: 66 percent in Massachusetts, 68 percent in North Carolina, and 67 percent in Washington. Additionally, a chi-square test revealed no statistically significant differences by gender between the respondents and non-respondents, either in the whole sample or within each state.

Measures and Data Analysis

I developed the survey instrument for this study based on two previous qualitative studies (Kauffman, 2002; Kauffman et al., 2002), a review of the curriculum and questionnaire design literature (Rea & Parker, 1997; Sudman & Bradburn, 1982), an inspection of questionnaires on related topics (Center for the Study of Teaching and

Policy, 2001; Kennedy, Ball, & McDiarmid, 1993; National Center for Education Statistics, 1999), and several rounds of focus groups with current and former teachers. The questionnaire consists of 205 items in five sections. The first section includes six questions about teaching assignments, such as grade level and subjects taught. The second section includes 33 items regarding the curriculum materials teachers have, how they use them, and their opinions about them. Each of these items requests a separate answer for each subject—mathematics, language arts, science, and social studies. The third section has nine items regarding the official curriculum expectations that teachers encounter, again repeated for each subject. The fourth section inquires about teachers' use of time with four items repeated for each subject. The final section asks nine questions about the teachers' background and personal information.

A final question was attached to the questionnaires for Massachusetts and Washington, asking respondents to identify their school and district. This information had already been provided on the North Carolina teacher list. I gathered school demographic data from the Common Core of Data, which is produced by the U.S. Department of Education's National Center for Education Statistics (NCES).

The analysis in this paper draws from 47 of the items from the complete survey instrument, including those pertaining to the curriculum materials received for each of the four academic subjects and teachers' opinions about them. For most of the data presented in this paper, I present the question stems and answer choices in the tables. To simplify the data presented in Table 5, I converted a six-point Likert scale, which ranged from "strongly disagree" to "strongly agree," to a binary choice of "agree" or "disagree."

To measure new teachers' perceptions of curriculum support, I used a single question in each subject area about the teachers' opinions regarding the amount of direction they receive regarding what and how to teach. I conducted descriptive analyses of the questionnaire data and constructed a series of comparative tables to summarize new teachers' experiences, which describe the individual items for each of the four subject areas addressed.

I conducted descriptive analyses of the questionnaire data and constructed a series of comparative tables to summarize new teachers' responses in each of the four subject areas. Not all respondents reported teaching all four subject areas, so the sample size varies across the subject areas. Other discrepancies in the descriptive data resulted from skipped questions. I conducted all statistical analyses using Stata 8.2.

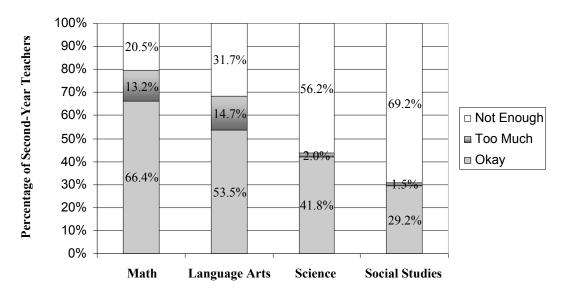
FINDINGS

Too Loose, Too Tight, Or Just Right? Second-Year Teachers' Opinions Regarding the Amount of Curriculum Direction They Receive

Large proportions of second-year teachers report receiving inadequate curriculum guidance, especially in science and social studies. Figure 1 shows that 69.2 percent of the second-year elementary teachers who teach social studies and 56.2 percent of those who teach science report that they receive insufficient direction regarding what and how to

teach in that subject. It is not surprising that new teachers feel less supported in science and social studies than they do in mathematics and language arts. As in most states, Massachusetts, North Carolina, and Washington had not begun administering high-stakes tests in science or social studies as of the 2002-03 school year, when the data for this study were collected. Faced with immediate test pressure in literacy and mathematics, school personnel tend to engage in "academic triage"—a conscious decision to target the most pressing academic needs, generally at the expense of untested subjects (Sandler, 2003). This can mean that most available support, including curriculum materials, professional development, supervisory or peer observations, and collaborative planning time, are directed toward the tested subjects and away from science and social studies.

Figure 1: Second-Year Elementary Teachers' Responses to the Question "... how do you feel about the amount of DIRECTION you personally are given regarding what and how to teach in each subject?" Reported by Subject. Weighted averages. See Table A1 in the Appendix for standard errors and sample sizes.



Although reports of lack of curriculum guidance are less common in language arts and mathematics than in science and social studies, they are by no means unusual. Figure 1 (above) shows that 31.7 percent of the second-year elementary teachers who teach language arts and 20.5 percent of those who teach mathematics report that they receive insufficient direction regarding what and how to teach in those subjects. This is surprising, given the high priority and additional resources that these two subjects generally command. Furthermore, in the face of reports of new teachers feeling constrained by mandated curriculum and scripted lessons (Costigan, Crocco, & Zumwalt, 2004), it is noteworthy that even in mathematics and language arts, the percentage of

second-year teachers who report receiving too little direction is greater than the percentage reporting too much direction.

Table 2 shows that reports of insufficient curriculum direction appear to be distributed fairly evenly regardless of state, socioeconomic status of students in the school, and grade taught. It is important to note, however, that there are two large and statistically significant differences across sub-groups.

In Massachusetts, 48.2 percent of the second-year teachers who teach language arts report insufficient direction in that subject, compared to 30.3 percent in Washington and only 21.0 percent in North Carolina. One likely explanation for this large disparity is that a greater proportion of second-year teachers in Massachusetts report teaching a literature-based language arts curriculum rather than using a textbook or basal reader, as compared to their counterparts in North Carolina and Washington. Data from this study show that second-year teachers using a literature-based curriculum report that their curriculum materials contain less detailed information regarding curriculum, pedagogy, and assessment than did those who used other types of language arts curricula. Other factors may contribute to this difference, including sample variation.

There is also a large and statistically significant difference in second-year teachers' reports of insufficient curriculum direction in language arts between teachers in high-socioeconomic-status schools and other schools. More than half (54.0 percent) of the second-year teachers in high socioeconomic status schools (defined here as those with fewer than 15 percent of students eligible for the federal free and reduced lunch program) report inadequate direction regarding what and how to teach in language arts, compared to only 23.3 percent of those in medium socioeconomic status schools and 27.3 percent of those in low socioeconomic status schools. Again, one explanation for this difference is the nature of the curriculum provided. The percentage of second-year teachers who report teaching a literature-based language arts curriculum is greater in high-socioeconomic schools than in low-socioeconomic schools. This is consistent with research by Knapp and Associates (1995) showing that high-SES schools tend to employ a more open-ended approach to teaching language arts, compared to low-SES schools, which are more likely to use tightly controlled curricula focused on basic facts. This highlights the importance of understanding what curriculum materials new teachers encounter at their schools.

⁴ In Massachusetts, 36.8 percent (se=6.4) of second-year teachers report that their school's curriculum is literature-based (without a textbook or basal reader), compared to 19.2 percent (se=4.0) in North Carolina and 19.5 percent (se=3.4) in Washington. The difference between Massachusetts and the other states is statistically significant (p<.05). The average level of curricular detail measured on a three-point scale reported by second-year teachers using a literature-based curriculum is 2.33 (se=.03), compared to 1.94 (se=.07) for those using textbooks or another type of language arts curriculum. This difference is also statistically significant (p<.001).

⁵ In high-socioeconomic schools, 31.7 percent (se=6.7) of second-year teachers reported that their school's curriculum is literature-based (without a textbook or basal reader), compared to 16.6 percent (se=4.1) in low-socioeconomic schools. The difference is statistically significant at a relaxed threshold of p<.10. This difference is related to the difference by state. Half (50.0 percent, se=6.5) of second-year teachers in Massachusetts teach in high-socioeconomic schools, compared to 19.6 percent (se=3.4) in Washington and only 7.0 percent (se=2.6) in North Carolina. Controlling for the other variable in a logistic regression analysis, however, state and socioeconomic status each have an independent effect on the likelihood of a second-year teacher reporting inadequate curricular direction.

Table 2: The Proportion of Second-Year Teachers Reporting Insufficient Curriculum Direction, Reported by Subject and Disaggregated by State, School, and Teaching

Assignment Variables. Weighted percentages, with standard errors in parentheses.

	Math	Lang. Arts	Science	Soc. Stud.
	(n=284)	(n=288)	(n=275)	(n=276)
All Second-Year Teachers	20.5%	31.7%	56.2%	69.2%
	(2.6)	(3.0)	(3.2)	(3.0)
State				
Massachusetts	19.3%	48.2%	58.0%	66.7%
	(5.2)	(6.7)	(7.0)	(6.4)
North Carolina	19.8%	21.0%	56.3%	66.0%
	(4.1)	(4.1)	(5.1)	(4.8)
Washington	22.9%	30.3%	54.3%	77.6%
	(3.7)	(4.0)	(4.4)	(3.7)
Socioeconomic Status of School				
High-income (<15% federal lunch)	20.3%	54.0%	65.5%	73.9%
<i>G</i> (, <i>a a</i> ,	(5.7)	(6.9)	(6.8)	(6.2)
Medium-income (15-50% federal lunch program)	20.6%	23.3%	52.7%	64.6%
,	(3.9)	(4.0)	(5.0)	(4.9)
Low-income (>50% federal lunch program)	20.2%	27.3%	53.0%	70.6%
	(4.2)	(4.7)	(5.3)	(4.9)
Location				
Urban (NCES locale code 1)	22.9%	37.1%	39.9%	50.5%
Croun (TVEES rotate code 1)	(8.7)	(11.0)	(11.6)	(11.5)
Rural (NCES locale codes 7 & 8)	16.5%	32.8%	57.4%	62.5%
((4.7)	(5.9)	(6.7)	(6.3)
Other location	21.6%	30.6%	57.9%	74.5%
	(3.2)	(3.7)	(3.9)	(3.5)
School Size				
Small (<350 students)	25.4%	37.9%	61.0%	72.6%
Silvin (Se o students)	(6.4)	(7.0)	(7.3)	(6.7)
Not small (≥350 students)	19.0%	30.3%	54.6%	68.1%
()	(2.8)	(3.3)	(3.6)	(3.4)
Grade Level				
Primary (Kinder, 1 st , 2 nd)	26.1%	28.5%	50.2%	71.1%
rimary (rimaci, 1, 2)	(4.5)	(4.7)	(5.1)	(4.8)
Intermediate (3 rd , 4 th , 5 th)	15.5%	34.5%	59.6%	67.6%
	(3.1)	(4.0)	(4.2)	(4.1)
Primary & Intermediate Combination	37.2%	21.9%	69.7%	77.4%
	(15.0)	(13.5)	(16.6)	(15.4)
State Test at Teacher's Grade Level				
Tested	15.9%	29.3%	58.3%	n/a
1 Colod	(3.4)	(4.2)	(14.3)	11/ 4
Not Tested	23.9%	34.2%	56.0%	n/a
1101 100104	(3.6)	(4.3)	(3.3)	

State Test at Teacher's Grade Level: Mathematics: 4th grade in MA & WA, 3rd, 4th, & 5th in NC; Language Arts: 3rd & 4th in MA & WA, 3rd, 4th, and 5th in NC; Science: 5th in MA, none in NC or WA Source of demographic data: Common Core of Data, National Center for Education Statistics, U.S. Department of Education

The Curriculum Materials Provided to Second-Year Teachers

Data from this study show that, although most second-year elementary teachers in these three states receive state standards documents, they are less likely to receive the more detailed curriculum materials that describe what to teach and how to teach it, especially in language arts, science, and social studies. Table 3 shows that, for each subject, more than 90 percent of second-year elementary teachers report receiving the state standards documents. In theory, state standards documents are a starting point for standards-based reform (Smith & O'Day, 1991). These documents are not intended to *be* the curriculum, but rather serve as the basis for developing the curriculum in a standards-based system (Achieve Inc., 2002). They typically provide an overview of the topics or information to be taught within certain grade-level spans, as well as some general information about teaching the subject. The hard work of developing a coherent sequence for teaching the standards, gathering resources and information, and planning effective lessons remains. This is challenging even for well-prepared novices (Costigan et al., 2004).

Table 3: Percentage of Second-Year Teachers Who Report that the State, District, or School Provides Them With Certain Curriculum Materials. Weighted percentages, with standard errors in parentheses.

	Math (n=287)	Lang. Arts	Science (n=277)	Soc. Stud. (n=279)
		(n=291)		
State standards document	94.9%	95.1%	91.3%	91.1%
	(1.4)	(1.4)	(1.7)	(1.8)
Curriculum guide	84.4%	77.9%	68.7%	61.7%
	(2.4)	(2.7)	(3.1)	(3.2)
Textbook and/or teacher's guide	96.2%	80.6%	73.2%	69.7%
	(1.3)	(2.6)	(2.9)	(3.0)

Because they contain large numbers of instructional objectives with only limited information about each one, standards documents are incomplete resources for most new teachers (Kauffman et al., 2002). For example, for fourth grade alone, the North Carolina Social Studies Standard Course of Study (North Carolina Department of Public Instruction, 2002) lists 35 objectives grouped under seven competency goals. Objective 3.02 is to "Identify people, symbols, events, and documents associated with North Carolina's history" and falls under the competency goal, "The learner will trace the history of colonization in North Carolina and evaluate its significance for diverse people's ideas." Which people, symbols, events, and documents should the teacher choose? What is the significance of each? What is an effective way to teach this information to fourth-graders? How will the teacher assess whether the students understand? The teacher either needs to answer such questions for herself or draw on additional resources for assistance.

The Massachusetts English Language Arts Curriculum Framework (Massachusetts Department of Education, 2001) includes a sample teaching idea for each of the 337 learning standards from kindergarten through 12th grade. For example, the framework indicates that in third and fourth grades, teachers should address Learning Standard 9.3, "Identify similarities and differences between the characters or events in a literary work and the actual experiences in an author's life," which falls under General Standard 9, "Making Connections." It then suggests that, "For example, students read excerpts from a biography of Laura Ingalls Wilder and discuss how she drew upon her personal experiences when she wrote Little House on the Prairie [italics in original]" (p. 40). This additional information, along with some sample lesson plans ("Sample Integrated Learning Scenarios") and lists of recommended resources, provide additional guidance but nothing near a complete curriculum. It is up to districts, schools, and teachers to complete the curriculum development, which includes determining what to teach at each grade level, the order in which to address the content, the specific instructional strategies to employ in teaching it, and the daily lesson plans. The process of aligning existing curriculum materials to the state standards is lengthy and complicated, and not typically feasible for any individual teacher, much less a novice.

Districts often produce curriculum guides for some or all subjects. The level of detail in these documents varies considerably from district to district, but they typically provide an overview of the content to be taught at each grade level and suggest, or even prescribe, which curriculum materials to use (English, 2000). Sometimes they recommend or require that teachers use a particular instructional approach, but other times they simply leave pedagogical decisions completely to the teachers. Less frequently, the curriculum guides themselves include more detailed instructional strategies or even lesson plans that teachers might or must use (Steinberg, 1999).

As some states have attempted to provide more curriculum guidance, the distinction between curriculum frameworks and curriculum guides has blurred. For example, the Massachusetts Language Arts Curriculum contains much of the information typically contained in district curriculum guides. Table 3 (above) shows that second-year elementary teachers less frequently report that they receive curriculum guides than that they receive standards documents. For each subject, there is a statistically significant difference between the percentage who report receiving the state standards documents and the percentage who report receiving the curriculum guides. In addition, there are differences across subject area. Although 84.4 percent of second-year teachers report that they receive curriculum guides for math, only 77.9 percent do so for language arts, 68.7 percent for science, and 61.7 percent for social studies. However, whether or not a new teacher suffers for lack of a curriculum guide likely depends in part on whether there are other supports and resources, such as textbooks available.

In addition to district curriculum guides, or sometimes instead of them, districts and schools typically adopt and purchase textbooks or other forms of curriculum materials, which are almost always accompanied by separate teacher's guides. Such materials typically provide fairly detailed information regarding both academic content and instructional strategies. The most common are produced commercially and marketed nationwide, and therefore they are rarely closely aligned with state standards or local

curriculum guides, although they often reference a state's standards or include a supplemental handbook, index, or chart to map the materials onto the state's standards. Again, there are differences by subject. Table 3 (above) shows that, although most (96.2 percent) of the second-year elementary teachers in the three states included in this study report that they receive some form of mathematics textbook or teacher's guide, a much smaller percentage report that they receive such materials for language arts (80.6 percent), science (73.2 percent), and social studies (69.7 percent).

Therefore, having curriculum materials, such as state standards documents, curriculum guides, and textbooks, does not necessarily mean that new teachers receive sufficient curriculum guidance. Conversely, not having these curriculum materials does not necessarily mean that new teachers lack adequate curriculum guidance. However, curriculum materials are a *potential* source of support for new teachers. The data presented above show that not all second-year teachers have access to these potentially supportive materials for every subject they teach.

How Second-Year Teachers Use Textbooks and Teacher's Guides

To understand how to better provide curriculum support to new teachers, it is important to understand how they use the curriculum materials they do have. Data from this study show that when second-year teachers have textbooks and teacher's guides, most use them. Table 4 shows that very few second-year elementary teachers who have textbooks and teacher's guides report that they rarely or never use them, especially in math (3.1 percent), language arts (5.6 percent), and science (7.0 percent).

Table 4: The Percentage of those Second-Year Teachers Who Receive a Textbook and Teacher's Guide Who Report Using Them in Various Ways. (Standard Errors in Parentheses.)

	Math	Lang.	Science	Soc. Stud.
	(n=277)	Arts.	(n=200)	(n=185)
		(n=240)		
Follow them closely.	28.8%	23.9%	22.1%	11.8%
	(3.0)	(2.9)	(3.0)	(2.6)
Generally follow the sequence, but skip, modify, or	44.8%	39.7%	29.1%	29.8%
supplement the lesson plans.	(3.2)	(3.4)	(3.5)	(3.7)
Generally follow the lesson plans but do not follow	7.0%	5.2%	6.5%	6.2%
The sequence.	(1.7)	(1.6)	(1.9)	(1.9)
Pick and choose from them.	16.2%	25.7%	35.3%	37.0%
	(2.4)	(3.1)	(3.7)	(3.8)
Rarely or never use them.	3.1%	5.6%	7.0%	15.2%
	(1.2)	(1.3)	(2.0)	(2.7)
Columns may not total 100% due to rounding.				

Although nearly all second-year teachers use available textbooks and teacher's guides, they are more likely to use them selectively than to follow them closely. The top

row of Table 4 (above) shows that, of those second-year elementary teachers who receive a textbook or teacher's guide, the proportion reporting that they closely follow them is comparable for math (28.8 percent), language arts (23.9 percent) and science (22.1 percent), but smaller (11.8 percent) for social studies. However, as shown in the second and third rows of Table 4, a higher percentage of second-year teachers report that they use these materials flexibly, either by following the sequence of the textbook while skipping, modifying, or supplementing the lessons, or by simply picking and choosing what they will use. This is consistent with prior research showing the ubiquitous but flexible nature of textbook use in American schools (Freeman & Porter, 1989; Schwille et al., 1983; Sosniak & Stodolsky, 1993).

The fact that nearly all second-year teachers who have textbooks and teacher's guides use them in some fashion suggests that these are important sources of support for new teachers. Yet many still report receiving insufficient guidance, raising the question of why so few teachers follow their curriculum materials closely. One possible explanation is that many new teachers are taught that "good teachers don't follow textbooks" and that they should be used only as a resource (Ball & Feiman-Nemser, 1988, p. 414). Even when faced with their own inexperience and need for support, new teachers sometimes resist relying more heavily on the curriculum materials. A second explanation is that they are willing—perhaps wanting—to more closely follow detailed curriculum materials while they are learning to teach, but they find the materials they have to be inadequate. This may be either because the materials are misaligned with what and how the teachers hope to teach or because they are of poor quality and design. The next section explores the explanation that the materials are inadequate.

Second-Year Teachers' Opinions About the Curriculum Materials They Do Receive

This section presents the opinions of second-year teachers about the curriculum materials they receive from the state, district, and school. It explores their responses to the content and instructional strategies the curriculum materials provide, their ease of use, and the compatibility of the materials with the teachers' beliefs about teaching.

One purpose of curriculum materials is to set forth the content of the curriculum. Not all second-year elementary teachers think that their curriculum materials address the content that their students need to learn. The first row of Table 5 shows that the percentage of second-year elementary teachers who agree with the statement, "These curriculum materials address the content that my students need to learn," is highest in mathematics (90.6 percent) and language arts (86.9 percent) and considerably lower in science (76.9 percent) and social studies (67.7 percent). It may be that the teachers who answer negatively think that the curriculum materials lack sufficiently detailed information about the academic content, or that the information presented does not align with the learning objectives the teacher feels she needs to teach (Kauffman, 2002). In either case, teachers must look elsewhere for content support when they believe that their official curriculum materials do not provide it.

Table 5: Satisfaction with Curriculum Materials
The Percentage of Second-Year Teachers Who Agree with Each Statement. Weighted Averages.
Standard Errors Are in Parentheses.

	Math	Lang. Arts	Science	Soc. Stud.
	(n=284)	(n=288)	(n=265)	(n=256)
"These curriculum materials address the content that	90.6%	86.9%	76.9%	67.7%
my students need to learn."	(1.8)	(2.1)	(2.8)	(3.1)
"These curriculum materials help me decide how to	86.0%	70.2%	65.8%	43.4%
teach this subject."	(2.2)	(2.9)	(3.1)	(3.3)
"These curriculum materials are "user-friendly" for	84.0%	75.9%	67.6%	51.6%
teachers."	(2.3)	(2.7)	(3.1)	(3.4)
"I agree with how these curriculum materials	80.4%	75.2%	70.7%	52.5%
approach teaching this subject."	(2.5)	(2.7)	(3.0)	(3.4)

A second purpose of curriculum materials is to provide guidance or suggestions regarding instructional practice—that is, how to teach the material to students. The second row of Table 5 (above) shows that the proportion of second-year elementary teachers who agree with the statement, "These curriculum materials help me decide how to teach this subject," is 86.0 percent for mathematics, 70.2 percent for language arts, 65.8 percent for science, and only 43.4 percent for social studies. The differences between these responses and those for content (in the first row) are large and statistically significant for three of the four subjects, suggesting that new teachers' curriculum materials provide greater content support than pedagogical support.

Even if they contain sufficient information regarding content and pedagogy, curriculum materials will be less supportive than they could be if new teachers do not find them accessible and usable (Kauffman, 2002). The third row of Table 5 (above) shows that the proportion of second-year elementary teachers who agree with the statement, "These curriculum materials are 'user-friendly' for teachers," is 84.0 percent for mathematics, 75.9 percent for language arts, 67.6 percent for science, but only 51.6 percent for social studies. If new teachers find curriculum materials to be difficult to use, it limits the extent to which they can draw support from them.

Finally, new teachers sometimes do not find their curriculum materials to be supportive if they do not agree with the approach to teaching that the materials present (Kauffman, 2002). The last row of Table 5 (above) shows that the proportion of second-year elementary teachers who agree with the statement, "I agree with how these curriculum materials approach teaching this subject," is 80.4 percent for mathematics, 75.2 percent for language arts, 70.7 percent for science, and only 52.5 percent for social studies. If the materials are incompatible with the new teachers' opinions about how the subject should be taught, then using them requires a compromise they will either avoid or resent.

Second-Year Teachers' Opportunities for Professional Development and Collegial Support Related to Curriculum

Although curriculum materials are typically the most comprehensive and accessible source of support regarding what and how to teach, they are more effective as part of a system of supports that includes regular interactions with other professionals. For example, long-term professional development that is centered on rich curriculum materials and that helps teachers reflect on their own understanding of the academic content and on how students make sense of it can help them with their curriculum decisions, foster their own learning, and assist them in more deliberately using their curriculum materials (Russell, 1997). Nevertheless, many second-year teachers report not having participated in any professional development or training specifically related to their curriculum materials, at any time, since being hired over one year before. The first row of Table 6 shows that many, but not all, second-year teachers reported curriculumrelated professional development for mathematics (71.0 percent) and language arts (80.7 percent), but very few did so for science (36.3 percent) and social studies (13.6 percent). This provides further evidence of both the lack of curriculum support for some teachers in mathematics and language arts and the severe neglect of science and social studies for many.

Table 6: Other Curriculum SupportsPercentage of the Second-Year Teachers Who Report Certain Activities. Weighted Averages. Standard Errors Are in Parentheses.

	Math (n=284)	Lang. Arts (n=288)	Science (n=271)	Soc. Stud. (n=271)
Professional Development: "At any time since you were hired, have you had any training or professional development specifically related to the curriculum materials provided by your state, district, or school?" Yes	71.0% (2.9)	80.7% (2.4)	36.3% (3.2)	13.6% (2.3)
Collaboration and Supervision: "In a typical week, approximately how many minutes do you spend discussing your curriculum and instruction with colleagues or supervisors?"				
30 Minutes or More Per Week	53.5%	57.7%	24.5%	24.5%
Fewer Than 30 Minutes Per Week	(3.2)	(3.1)	(2.8)	(2.8)
rewei Than 30 Minutes Per Week	33.8% (3.0)	32.2% (3.0)	44.8% (3.3)	42.3% (3.2)
Not at All	12.7%	10.2%	30.8%	33.2%
	(2.1)	(2.0)	(3.1)	(3.1)

Collaboration with colleagues, discussions with official or unofficial mentors, and guidance from supervisors are other sources of support for new teachers (Kardos et al.,

2001). Such interactions can help new teachers to use their curriculum materials more effectively and more deliberatively. However, opportunities for interaction with other professionals regarding curriculum are scarce for second-year teachers. The lower section of Table 6 (above) shows that barely one-half of second-year elementary teachers report spending 30 minutes or more each week discussing curriculum and instruction with colleagues or supervisors in mathematics (53.5 percent) and language arts (57.7 percent) and fewer than one-fourth do so for science (24.5 percent) and social studies (24.5 percent). In fact, roughly one-third of second-year elementary teachers report that they do not discuss science (30.8 percent) and social studies (33.2 percent) at all with colleagues and supervisors. With many subjects to teach and little time to meet, the untested subjects are pushed to the side.

CONCLUSIONS AND IMPLICATIONS

Data from this study reveal that many second-year teachers lack adequate curriculum support, as measured by their own perceptions of the amount of direction they receive regarding what and how to teach, the curriculum materials they receive, their opinions regarding the materials they do receive, and the other sources of support available to them. The problem cuts across the four core subject areas, but is severe in science and social studies. This has consequences for students and for teachers.

For students, new teachers' lack of curriculum support in the face of high-stakes testing can prevent them from learning all that they could or need to. Specifically, students' lack of exposure to subjects such as science and social studies limits their opportunities to learn these subjects and, consequently, their opportunities for higher education and future social and economic advancement, according to advocates for greater attention to the broad range of liberal arts (von Zastrow & Janc, 2004). For teachers, lack of curriculum support contributes to frustration and limits the success and satisfaction that new teachers achieve in the profession (Kauffman et al., 2002).

Curriculum materials are certainly not the only potential source of support for new teachers, nor are they their only source of information about academic content and instructional practice. New teachers bring skills, knowledge, and experiences with them to the classroom. Once there, they may draw from a variety of stimulating resources to construct their own curriculum, building on their own background and their students' interests. They may find themselves in a collaborative professional culture, working closely with their colleagues to plan objectives for the school year and daily lessons.

However, the modal experience of new teachers is more challenging than this. Much of new teachers' learning occurs on the job as they face the same classroom responsibilities as their experienced colleagues (Lortie, 1975). Their best efforts to construct a coherent curriculum and to plan engaging lessons often become a "mad scramble" to pull together activities that will get them through the next day (Kauffman et al., 2002). Isolation, rather than collaboration, is still the norm (Kardos et al., 2001; Little, 1990). In many schools, curriculum materials may be one of the few consistent, potential sources of guidance for new teachers.

It is thus imperative to provide new teachers with high-quality curriculum materials for every subject. These materials should be closely aligned with the expectations for what students should learn at that grade level, which typically means that they should be aligned with the state standards. At a minimum, new teachers should be explicitly supported by matching the available materials to the learning expectations. Furthermore, these materials should support new teachers in wisely making the adaptations that they invariably make. This means that they should support new teachers in how to make good instructional decisions and not just tell teachers what to do. In this way, they can explicitly support teachers' own learning about the subject matter, how children think about it, and how best to teach it to a variety of students. While providing regular opportunities for new teachers to learn, the curriculum materials should not be so dense or complicated that they exacerbate the difficulty new teachers often face in simply planning a slate of activities to fill tomorrow's class time.

Ideally, high-quality curriculum materials serve as a readily accessible foundation upon which to build a larger system of support. New teachers will be best able to use curriculum materials when they have regular and substantive time to discuss content and instruction with colleagues and supervisors. Furthermore, it is important that new teachers engage in professional development that helps them learn to use their available curriculum materials thoughtfully and effectively as tools to support their own teaching (Ball & Feiman-Nemser, 1988; Ben-Peretz, 1990) and their own learning (Russell, 1997). Finally, reasonable teaching assignments (limiting the number of preparations, keeping novice teachers teaching the same grade level for the first few years of teaching, or curtailing their curricular responsibilities in whatever ways possible) can also support new teachers as they focus on one of the key aspects of their teaching: curriculum development and lesson planning.

Although there is still much to learn about new teachers' experiences with curriculum, it is critical that policymakers and administrators look closely at what we know now and begin to address some of the pressing problems identified by second-year teachers in this and other studies. Meanwhile, additional research on new teachers and curriculum could help us better understand which features of curriculum materials best support new teachers, and what differences, if any, exist by subject, teacher, or school.

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APPENDIX

Table A1: Second-Year Elementary Teachers' Responses to the Question "... how do you feel about the amount of DIRECTION you personally are given regarding what and how to teach in each subject?", Reported by Subject. Weighted Averages. Standard Errors Are in Parentheses.

	Math	Lang. Arts	Science	Soc. Stud.
	(n=284)	(n=288)	(n=275)	(n=276)
There is not enough direction	20.5%	31.7%	56.2%	69.2%
_	(2.6)	(3.0)	(3.2)	(3.0)
There is the right amount of direction	66.4%	53.5%	41.8%	29.2%
_	(3.0)	(3.2)	(3.2)	(3.0)
There is too much direction	13.2%	14.7%	2.0%	1.6%
	(2.2)	(2.2)	(1.0)	(0.8)