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Characteristics of Public School Teachers' Professional Development Activities: 1999–2000

As in many professions, elementary and secondary school teachers are expected to participate regularly in professional development activities. These activities may be intended to help teachers to learn new teaching methods, broaden their subject matter content knowledge, or stay informed of changing policies, among other purposes. Researchers have identified several features of professional development that have been correlated with change in teacher knowledge and instructional practices (Cohen and Hill 2000; Garet et al. 2001), including (1) a focus on teachers' subject matter content or the teaching methods they employ (called *focus on content* and *focus on methods* in this Issue Brief); (2) duration in terms of the number of hours of training and the number of weeks or months over which training is provided (*duration*); (3) an activity format that is integrated into the daily work of teachers rather than removed from the context of direct public school teaching, as in traditional workshops (*format*); (4) collective participation of teachers' peers in matters of instruction (*collective participation*); (5) alignment with local standards and other initiatives to change instructional practice, as well as teachers' own professional goals (*alignment*); and (6) activities that produce many opportunities for active learning, including observation, planning, practicing, and presenting (*opportunities for active learning*).

Little is known about how common these features of professional development are at the national level. This Issue Brief uses data from the 1999–2000 Schools and Staffing Survey (SASS) to examine the prevalence of the first five features of teacher professional development listed above.¹

Measures of teachers' professional development were taken from teacher reports on their activities over the 12 months prior to the day they were surveyed. In the balance of the Issue Brief, we refer to this period as "in the previous year." Measures of *focus on content* and *focus on methods* were taken from teacher reports of professional development they received in the previous year. *Duration* was measured as the total number of hours teachers reported participating in professional development activities in content and methods of teaching.² *Format* was measured as two types—attendance at workshops, conferences, or training and participation in mentoring, peer observation, or coaching. The measure of *collective participation* was taken from a teacher questionnaire item asking if teachers participated in regularly scheduled collaboration with other teachers on issues of instruction.³ Measures of *alignment* were taken from school principal reports on the importance of various influences on teacher professional development activities (on a five-point scale with 1 = Not at all important and 5 = Very important). Potential influences included district improvement plans, school improvement plans, state or local academic standards, state or local skills standards, and teacher preferences.⁴ For each, the

Issue Brief shows the percentage of principals who reported it as "very important."

Prevalence of Professional Development by Feature

Focus on content and *focus on methods*. During the 1999–2000 school year, 73 percent of public school teachers reported participating in professional development focused on methods of teaching in the past 12 months (table 1). More than half (59 percent) of teachers reported participating in professional development focused on the content they taught. Teachers with a main assignment in elementary education were more likely to report professional development focused on content (69 percent) than were teachers with main assignments in English (60 percent), mathematics (53 percent), science (47 percent), or social science (46 percent). Teachers with 3 or fewer years of teaching experience were less likely than teachers with more teaching experience to report professional development in content. Elementary level teachers reported more professional development both in content and teaching methods than did teachers at the secondary level. Teachers in schools with 75 percent or more of students eligible for free or reduced-price lunch (hereafter called "highest poverty schools") reported more professional development in both content and teaching methods than did other teachers.

Duration. Regardless of focus, content or teaching methods, a majority of teachers reported receiving 8 or fewer hours of professional development in the previous year. Eighteen percent of teachers reported at least 33 hours in the previous year in professional development on content, compared with 10 percent who reported at least 33 hours in activities focused on methods of teaching. Teachers with main assignments in elementary education and English were more likely to report at least 33 hours of professional development in content over the past 12 months (22 and 20 percent, respectively) than teachers with main assignments in mathematics (15 percent), science (16 percent), or social science (14 percent). In both content and teaching methods, teachers with 4–9 or 10–19 years of teaching experience were more likely than teachers with 3 or fewer years of teaching experience to report at least 33 hours of professional development. Elementary level teachers were more likely than secondary level teachers to report at least 33 hours of professional development on each focus, as well.

Format. Ninety-five percent of public school teachers reported attending a workshop, conference, or other training session in the previous year, compared with 42 percent who reported participating in mentoring, peer observation, or coaching (table 2).⁵ Teachers with 3 or fewer years teaching experience were more likely than teachers with more teaching experience to report participating in mentoring, peer observation,

Table 1. Percentage of public school teachers' participation in subject matter content and teaching methods professional development activities in the previous year, by selected teacher and school characteristics: 1999–2000

Teacher and school characteristics	Focus		Hours in past 12 months by focus					
	Content	Methods	Content			Methods		
			0–8	9–32	33+	0–8	9–32	33+
Total	59.1	72.8	52.3	29.5	18.2	57.3	32.5	10.2
Selected main assignments								
Elementary education	68.7	77.9	42.7	35.4	21.9	50.9	37.4	11.7
English	60.1	73.6	51.4	29.0	19.5	56.0	31.7	12.3
Mathematics	52.9	68.1	58.1	26.6	15.4	62.3	29.2	8.5
Science	47.4	68.5	64.1	19.7	16.2	63.9	26.6	9.5
Social science	45.9	72.4	65.1	20.6	14.2	60.9	30.4	8.7
Years of teaching experience								
0–3	53.4	71.0	59.7	26.9	13.5	61.4	30.0	8.6
4–9	59.9	74.4	51.7	29.4	18.9	55.7	33.6	10.7
10–19	61.9	74.4	48.7	30.7	20.6	54.3	34.1	11.5
20 or more	59.1	71.4	52.0	29.8	18.2	58.6	31.6	9.7
Grade level taught								
Elementary	66.1	76.5	45.6	33.9	20.5	52.7	35.9	11.3
Secondary	51.1	68.5	59.9	24.4	15.6	62.5	28.5	9.0
Percent of students eligible for free or reduced-price lunch								
Less than 50 percent	57.1	70.9	54.2	28.7	17.0	59.9	30.7	9.4
50–75 percent	61.7	75.7	49.1	31.3	19.6	53.1	36.0	10.9
75 percent or more	65.8	78.9	47.0	32.0	21.0	49.9	37.7	12.4

NOTE: Selected main assignment categories are mutually exclusive. Detail may not sum to totals because of rounding. Not all apparent differences in this table are statistically significant. Standard errors are available at <http://nces.ed.gov/pubsearch/pubinfo.asp?pubid=2005030>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), 1999–2000 "Public School Teacher Questionnaire" and "Charter School Teacher Questionnaire."

or coaching activities—a format more likely than workshops and conferences to integrate professional development with teachers' daily work. More teachers reported participating in mentoring, peer observation, or coaching in the highest poverty schools than did other teachers.

Collective participation. Seventy-four percent of public school teachers reported participating in regularly scheduled collaboration with other teachers on issues of instruction. Teachers with 3 or fewer years of teaching experience were less likely than more experienced teachers to report regularly scheduled collaboration. Teachers at the elementary level were more likely than secondary level teachers to report regularly scheduled collaboration.

Alignment. More than half of public school principals reported a school improvement plan (59 percent) or state or local academic standards (52 percent) as "very important" influences on determining the content of teacher professional development activities (table 3). More than 40 percent of principals reported that a district improvement plan (46 percent) or state or local skills standards (45 percent) were "very important" influences on teacher professional development. Twenty-six percent of principals called teacher preferences a "very important" influence.

Conclusion

Nearly 60 percent of all public school teachers reported professional development in the previous year in the content of the subject matter they taught; more than 70 percent reported professional development in methods of teaching. On the other hand, in both content-focused and teaching methods-focused professional development, fewer than half of public school teachers reported receiving more than 8 hours of professional

Table 2. Percentage of public school teachers who reported participating in various professional development activities, by selected teacher and school characteristics: 1999–2000

Teacher and school characteristics	Workshops, conferences, or training	Mentoring and/or peer observation and coaching	Regularly scheduled collaboration
Total	94.8	42.1	74.4
Main assignment			
Elementary education	96.9	43.8	80.7
English	95.3	44.2	75.9
Mathematics	93.6	39.4	71.9
Science	92.8	41.2	69.1
Social science	93.6	45.1	72.4
Years of teaching experience			
0–3	93.3	50.7	63.4
4–9	95.5	42.4	73.7
10–19	95.8	40.8	77.9
20 or more	94.2	38.8	77.4
Grade level taught			
Elementary	96.4	42.6	78.1
Secondary	92.9	41.5	70.2
Percent of students eligible for free or reduced-price lunch			
Less than 50 percent	94.4	41.1	73.8
50–75 percent	95.2	42.9	75.1
75 percent or more	95.6	47.0	76.6

NOTE: Selected main assignment categories are mutually exclusive. Not all apparent differences in this table are statistically significant. Standard errors are available at <http://nces.ed.gov/pubsearch/pubinfo.asp?pubid=2005030>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), 1999–2000 "Public School Teacher Questionnaire" and "Charter School Teacher Questionnaire."

Table 3. Percentage of public school principals who ranked potential influences on determining teacher professional development activities as “very important,” by selected school characteristics: 1999–2000

School characteristics	District improvement plan	School improvement plan	State or local academic standards	State or local skills standards	Teacher preferences
Total	46.4	59.2	52.5	45.1	25.6
School level					
Elementary education	49.8	62.7	55.8	48.3	26.9
Secondary	38.5	50.3	44.0	36.5	22.1
Combined	34.9	50.7	45.2	40.0	22.8
Locale					
Large or mid-size city	51.7	68.4	58.9	52.3	29.6
Urban fringe	48.7	60.4	53.6	46.0	25.3
Small town or rural	39.1	50.3	45.9	38.3	22.8
School enrollment					
Less than 349	41.7	51.4	46.6	39.9	25.2
350–999	49.8	64.2	56.3	48.6	26.1
1,000 or more	43.8	58.1	51.8	43.8	23.7
Percent of students eligible for free or reduced-price lunch					
Less than 50 percent	45.2	56.7	49.2	41.2	24.3
50–75 percent	47.6	63.7	55.7	48.9	23.8
75 percent or more	52.3	66.4	61.6	55.2	31.3

NOTE: Not all apparent differences in this table are statistically significant. Standard errors are available at <http://nces.ed.gov/pubsearch/pubinfo.asp?pubid=2005030>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), 1999–2000 “Public School Principal Questionnaire” and “Charter School Principal Questionnaire.”

development in the past 12 months. In addition, a larger percentage of teachers reported participating in workshops than in mentoring, peer observation, or coaching. About three in four teachers received opportunities for collaborative participation, while less experienced teachers were the least likely to collaborate with other teachers. In terms of alignment, about 6 in 10 principals reported that school improvement plans were “very important” in determining teacher professional development activities; in contrast, teacher preferences were cited as “very important” 26 percent of the time.

SASS 1999–2000 did not collect data to capture *active learning* (e.g., opportunities for practice designed into the training), another aspect of professional development identified by researchers. Further research on this developmental feature and the five considered herein may more completely reveal the links between teacher knowledge and instructional practices and the key features of professional development.

Endnotes

¹The 1999–2000 SASS did not collect information that could be used to measure the sixth characteristic (*opportunities for active learning*). Analysis in this Issue Brief is based on data from 44,933 public school teachers and 9,415 public school principals in the 1999–2000 SASS sample. When the teacher cases are weighted using the TFNLWGT weighting variable and the principal cases are weighted using the AFNLWGT weighting variable, estimates are representative of the total populations of public school teachers and principals, respectively, during the 1999–2000 school year.

²SASS offered teachers four categories: 8 hours or less, 9–16 hours, 17–32 hours, and 33 hours or more; in this Issue Brief, the two intermediate categories are combined into a single middle category.

³The SASS teacher questionnaire does not define “regularly” except to say that regularly does not include administrative meetings. For instance, Parsad, Lewis, and Farris (2001) found that 69 percent of public school teachers in 1999–2000 had participated in regularly scheduled collaboration with other teachers over the prior 12 months, but 31 percent reported collaborating at least once a week.

⁴This measure of alignment refers only to professional development sponsored by the school administration. Teachers may be participating in other professional development.

⁵Additional analysis shows in 1999–2000, 99 percent of public school teachers participated in some form of professional development in the past 12 months.

References

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