Characteristics of Highly Effective Cooperating Teachers: A Study of Their Backgrounds and Preparation

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ABSTRACT: This study used interviews and other artifacts collected during student teaching as the basis for rating 13 elementary cooperating teachers on their supervisory effectiveness. Once highly effective cooperating teachers were differentiated from their less effective peers, researchers used ex post facto methods to identify background and intervention factors associated with their effectiveness levels. Three factors consistent in the highly effective group were (1) being midrange in number of teaching years, (2) having supervised more than five earlier field experience students, and (3) having closely collaborated with the university supervisor. However, the most powerful association for high effectiveness was the graduate-level preparation in supervision. Four of the five most effective teachers in this study had master's degrees in teacher leadership, and all had taken course work on systematic observation and feedback, as well as conferencing skills. This deep preparation was associated with an ability to articulate beliefs behind practices and use practices congruent with those beliefs.

A number of studies over the past 3 decades have identified the cooperating teacher as the most significant influence on student teachers (Griffin et al., 1983; Karmos & Jacko, 1977; Manning, 1977; McIntyre & Byrd, 1998). Such studies have built the case that because cooperating teachers have such a profound influence on the professional development of student teachers, cooperating teachers' effectiveness should be ensured through careful selection and formal training for their role as supervisors (Killian & McIntyre, 1987; McIntyre & Byrd, 1998; Wang, 2000; Wilkins-Canter, 1996; Zimpher & Howey, 2005). Several conditions and interventions have been associated with effective supervision during clinical experiences. Swetnam and Blocker (1995) recommend that cooperating teachers have ample experience both with teaching and with the successful supervision of prior student teachers. Others have recommended selecting cooperating teachers on the basis of practices that are collaborative and congruent with the university supervisor (O'Shea, Hoover, & Carroll, 1988) and consistent with the teacher education program's vision of teaching (Koerner, Rust, & Baumgartner, 2002; LaBoskey & Richert, 2002). But by far the most common advocacy involves the systematic preparation of cooperating teachers, usually with a focus on the communication skills that they will need for conferences, feedback, and written evaluation.

Research has not established, however, whether the presence of such conditions and interventions is related to the supervisory effectiveness of cooperating teachers. Experimental research on the efficacy of mentor training is rare. In one such study, Evertson and Smithey (2000) compared the influence of trained mentors with that of untrained mentors on the classroom practices of beginning teachers and found advantages for the trained group in conferencing skills and the conveyance organizational and management routines. Even so, in a 2008 critical review of the literature, Wang, Odell and Schwille report that they found no studies that clearly identified the type of mentor training associated with positive effects on beginning teachers' learning. Although many authors have described training and have made recommendations, there is little systematic research on exactly what the most effective supervisors do (Darling-Hammond & Hammerness, 2005), let alone how they develop those skills.

The present study investigated the effectiveness of cooperating teachers at four sites where several of the factors associated with effective supervision were present. The purpose of this study was threefold: first, to develop a tool to measure supervisory effectiveness based on effective supervisory practices identified in the research and literature; second, to discriminate between the highly effective and less effective cooperating teachers; and, third, to identify background and intervention variables associated with the effectiveness of the cooperating teachers.

Research Design

The study used a pragmatic sequential mixed-methods design. Mertens (2005) describes the conditions when this type of study is desirable:

One type of data provides a basis for the collection of another type of data. It answers one type of question by collecting and analyzing two types of data. Inferences are based on the analysis of both types of data. A sequential mixed-models design is one in which the conclusions that are made on the basis of the first strand lead to formulation of questions, data collection, and data analysis for the next strand. The final inferences are based on the results of both strands of the study. (p. 298)

In the first stage of the research, information was gathered through interviews and artifact collection about cooperating teachers' supervisory preparation, practices, and perceptions. Data from each teacher were then qualitatively analyzed for evidence regarding the indicators of effectiveness identified in the literature. Teachers whose practices evidenced a high usage of the recommended practices were classified as highly effective; those whose practices evidenced sparse use of recommended practices were classified as less effective. Three characteristics differentiated the highly effective group in the qualitative data, as described and illustrated later. In the second stage of the research, researchers used ex post facto methods to investigate whether one or more preexisting conditions could have caused subsequent differences in the group of participants (McMillan & Schumacher, 2006). Specifically, researchers looked at whether variables, as identified in the literature as promoting effective supervisory practices, were in fact more prevalent in the backgrounds and preparation of the highly effective teachers.

Sample

Table 1 displays characteristics of the sites sampled. Three factors were common to all four sites. All were located near a large midwestern university and had more than 3 decades of teacher education partnerships with the university. All sites had a long-term center coordinator for field experiences—that is, a university faculty member who coordinated all placements and supervision. All cooperating teachers were tenured, and most had
worked with multiple field-experience students. At three of the four sites, a mentoring workshop for cooperating teachers had been offered for the past four summers.

For three semesters, all cooperating teachers who were assigned full-semester elementary education student teachers at three schools near the university were asked to participate in the study. Their student teachers were also asked to participate. Ten of the 11 eligible pairs agreed. The researchers also solicited the participation of all elementary cooperating teachers at an additional site. This site was added for comparison because it had a different university supervisor and was located in a school district more rural than the other three. Three of four eligible pairs at the fourth site chose to participate. The total sample included 87% of the elementary education placements at four schools—that is, 13 cooperating-teacher–student-teacher pairs.

**Data Collection and Analysis**

The primary data source for the study comprised interviews with the 13 pairs of cooperating teachers and student teachers. At midterm and the end of semester, the researcher went to the schools and used a structured interview protocol to inquire about the following: the feedback and conferencing practices that these teachers used in their day-to-day supervision of student teachers, as well as their rationales for these practices; the teachers' and student teachers' perceptions about the efficacy of the selected supervisory practices; the experiences and preparation that cooperating teachers characterized as being influential in their mentoring practices; and the preparation and support that cooperating teachers believed were important for their roles as mentors. The interview protocol for cooperating teachers is included as Appendix A; the protocol for student teachers asked similar questions about feedback and conferencing but did not include the background and preparation questions found in the cooperating teachers' version.

Length of the interviews ranged from 25 to 65 minutes (M = 40 minutes, cooperating teacher; M = 25 minutes, student teacher). Research interviews were transcribed and then mailed to participants for verification and the opportunity to add comments. Student teachers' weekly journals and time logs were used as a method of corroborating the information obtained during interviews. Journals included responses to open-ended questions about the following: activities that student teachers participated in, directed, or assisted with; their interactions with K–8 students and with cooperating teachers; and the extent to which cooperating teachers observed them, as well as the type of feedback provided to them. Time logs were grids, with a list of the cooperating teachers' major teaching responsibilities on the left and with spaces under each week to indicate whether the student teacher had observed, assisted with, team-taught, or independently taught that subject. Appendix B is a sample time log. Data were also triangulated through informal conversations with the center coordinators.

Interviews, weekly journals, time logs, and conversational notes for each student-teacher–cooperating-teacher pair were placed into an individual folder. After the final interview, the

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**Table 1. Characteristics of Sites Sampled**

<table>
<thead>
<tr>
<th>Site</th>
<th>Pairs (n)</th>
<th>Miles to University</th>
<th>Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>&lt;2</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>&lt;6</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>&lt;7</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>&lt;15</td>
<td>No</td>
</tr>
</tbody>
</table>

*Note.* Sites 1–3 had the same coordinator, who had held the position for 12 years at the time of the study. Site 4 had a different coordinator, who had had the position for 8 years.
primary researcher read all the contents of each folder (i.e., holistically), looking for indicators of supervisory effectiveness that were corroborated by more than one data source. For example, if a cooperating teacher reported at midterm that she was regularly providing written and oral feedback, that information was checked against the student teacher’s midterm interview, as well as the student teacher’s weekly journal responses to the question about observation and feedback.

Measuring Cooperating Teachers’ Level of Supervisory Effectiveness

To rate each cooperating teacher’s supervisory effectiveness, researchers developed the Supervisory Effectiveness Continuum (Appendix C) based on a review of the literature on cooperating teachers’ traits associated with a quality field experience. That review revealed several common themes, most of them related to feedback. The researchers then developed a continuum of characteristics derived from those themes that could be assessed by a qualitative examination of the evidence. The final format of the continuum comprised six feedback characteristics and one growth and independence characteristic.

Content Validity

The importance of effective feedback is evident in the frequency of its advocacy in teacher education literature. Development of positive supportive communication skills is the most commonly recommended component of cooperating teacher preparation programs (Ganzer, 2002; Garland & Shippy, 1991; Ramanathan & Wilkins-Canter, 2000; Woolley, 1997). Research studies have indicated that cooperating teachers trained in supervisory skills provide significantly more feedback and promote more positive and collaborative internships than do cooperating teachers who have not received training (Berg, 1986; Giebelhaus & Bowman, 2000; Jin & Cox, 2000; Killian & McIntyre, 1987).

The components of quality feedback are well established. Feedback, both written and oral, needs to be frequent, and it needs to be delivered when practice and opportunity for improvement become available (Enz & Cook, 1992; Lowenhaupt & Stephanik, 1999; Wilkins-Canter, 1996, 1997). Such conditions promote clarity and specificity in communication (Barnes & Edwards, 1984). Abundance of feedback increases the student teacher’s instructional effectiveness (Birrell & Bullough, 2005). Advocates for feedback point out that to be most effective, feedback should be relevant to the student teacher’s needs, and it should be based on objective data (Acheson & Gall, 2003; Dever, Hager, & Klein, 2003; Neide, 1996).

Research has also shown the value of cooperating teachers’ feedback in promoting reflection and goal setting when conferencing with student teachers about data collected during observation (Kiraz, 2004). In contrast with this reflective model is what all too frequently occurs during student teaching—namely, an abundance of feedback focused on lesson delivery (specifically, the strengths and weaknesses therein), at the sacrifice of attention to student learning and the development of the intern’s self-reflection (Badger, 2008). The typical result is the movement of student teachers toward their unconsidered adoption and duplication of the cooperating teacher’s practices (Price, 1961; Seperson & Joyce, 1973; Woolley, Woolley, & Hosey, 1999; Zevin, 1974).

There is one final important characteristic of effective feedback: Such feedback is balanced. To optimize the student teacher’s professional development, the cooperating teacher must be able to communicate feedback both positive and negative. Although the university supervisor is the one who typically provides feedback to student teachers on a regular basis, it is the cooperating teacher whom they view as the most significant other in their development (Karmos & Jacko, 1977)—and it is the cooperating teacher who is most available on a daily basis to see prob-
lems as they emerge and to provide feedback that is formal and informal, as well as forma-
tive and summative (Melser, 2000; Morris,
Nunnery, Taylor, Knight, & Brooks, 2000).
However, despite how central they are during
student teaching, cooperating teachers are
typically unwilling to share negative criticism
with their student teachers (Gal, 2006;
Richardson-Koehler, 1988; Zimpher, deVoss,
& Nott, 1980).

Reliability

To assess the extent to which coders could rate
cooperating teachers' effectiveness with con-
sistency, three coders independently read the
contents of each pair's folder and rated the co-
operating teacher. All coders had taken exten-
sive course work in instructional supervision
and teacher education in their doctoral degree
programs; two have taught graduate-level su-
ervision courses for cooperating teachers.
Two also have multiple publications in teacher
education journals and texts on the supervi-
sion of field experiences; all three have pre-
sented numerous papers on the topic at na-
tional teacher education conferences.

Contents of the folders included interview
transcripts of student teachers and cooperating
teachers, as well as the student teachers' jour-
nals and time logs. Raters were asked to care-
fully read the interviews and to corroborate
their content by looking at the journals and
time logs. They were then asked to give each
teacher a rating on the scale of 1 (ineffective)
to 5 (highly effective) using the continuum
(Appendix C). If a teacher fell between cate-
gories, the ground rule for scoring was to round
up if the teacher met 50% of more of the cri-
teria in a numerical category. The mean effec-
tiveness rating for the 13 teachers was 3.7,
with a standard deviation of 1.1.

To calculate interrater reliability, re-
searchers used an online calculator (available
at http://www.med-ed-online.org/rating/
reliability.html). As quoted from the website,
this program estimates the reliability of a set of
ratings or other scores based on a formula pre-
sented by Robert Ebel (1951): “The formula
approximates an intraclass correlation and is
very flexible in that it requires no assumptions
about the number of judges rating each person
or object rated nor which judges rate each per-
son or object.” Using this program, researchers
established that the interrater reliability coef-
ficient across the four coders was .92.

Findings

Practices of Highly Effective
Cooperating Teachers

For the purpose of comparing and contrasting
the most effective cooperating teachers with
those who were less effective, cut points were
established. The five teachers whose ratings
were above 4.7 were categorized as highly effec-
tive. The eight teachers who averaged ratings
of 3.7 or below were categorized as less effec-
tive. No ratings fell between 3.7 and 4.7 and
no ratings fell below 2.0.

A separate follow-up review of transcripts,
journal entries, and weekly time logs made
tree characteristics stand out that were com-
mon to all the highly effective teachers in this
study. Two of the three characteristics were
identical to the literature-derived feedback
characteristics on the Supervisory Effective-
ness Continuum: emphasis on student teacher
growth and independence and direct commu-
nication with the student teacher when prob-
lems arose. The third reflected their amount
of teaching time.

The first characteristic was apparent in
the interview transcripts of cooperating teach-
ers and student teachers, as well as in student
teachers' journal entries. Although all the co-
operating teachers in this study used strategies
to keep their student teachers focused on stu-
dent achievement, highly effective cooperat-
ing teachers were less concerned than others
with having their student teachers duplicate
their practices. They rarely provided solutions
for their mentees, opting instead to nudge
them toward independent problem solving.
Interviews and journal entries from student
teachers provided evidence that they were not
always comfortable with, what they perceived early on, as a lack of direction, although such concerns diminished as the student teachers grew to appreciate their autonomy.

A second distinguishing characteristic emerged from the feedback portion of the interviews. Highly effective cooperating teachers were adept at providing corrective objective feedback before problems escalated, a situation that proved the most challenging and unresolvable for the less successful pairs in this study. The highly effective teachers resolved difficult issues at early stages, whereas the less effective preferred to avoid them, which meant that for the former there were few surprises at midterm and final, even when student teachers' ratings were low. The highly effective teachers did not find giving negative comments easy, but they had learned to do so and so used those skills when they needed to.

A third common characteristic among the highly effective teachers was suggested in the student teachers' time logs and illuminated by interview data. Weekly teaching logs revealed that student teachers with highly effective cooperating teachers had higher percentages of teaching time. Much of this seems attributable to the fact that the effective pairs worked as teams rather than as turn takers. A side benefit of this teaming was that on those occasions where the student teacher made a serious content error or struggled with a management issue, the cooperating teacher could inconspicuously intervene. Reflecting later on such interventions, the student teachers expressed relief, rather than a sense of having been undermined.

The following examples illustrate the difference between a highly effective cooperating teacher and a minimally effective one, comparing their ways of dealing with feedback.

When asked near the end of the semester about content and frequency of feedback, fourth-grade teacher Ginny first gave some background about her student teacher: In addition to student teaching, she had three jobs and a class. She was also going through a divorce and frequently came to school sleep deprived, which affected her performance. On one occasion, she did not show up for science fair and had given no notice. Then, Ginny talked about feedback:

When she started to slip a little, I had to increase the frequency. Normally, it would get shorter. Ours became more awkward. When she was in her takeover, it seemed to be too much. She was not as independent as she should have been and would ask me at the last minute what to do. . . . Problems with a student teacher's performance create a dilemma about the grade. You know you're affecting someone's life, but you need to be honest.

Ginny's score on the Supervisory Effectiveness Continuum was a 4.7.

By contrast, Martha, a kindergarten teacher, struggled with the need to provide feedback:

Other than the midterm, nothing was written down. Around the midterm, we used the form recommended by the university supervisory, but we did it orally. Later I thought I should have filled in the form. [The researcher asks why.] She has become so familiar with me. Our relationship is so collegial. Sometimes when you get into that kind of relationship, doing a formal evaluation doesn't feel comfortable. [Researcher asks her if she meant a judgmental kind of evaluation.] Yes. Maybe I shouldn't get so close that I can't give that kind of feedback.

Later, when asked what kind of questions her student teacher raises, Martha said, "She really doesn't ask questions a lot. She set her goals early on and she has achieved them." The researcher's impression, from interviews with the student teacher and from a review of her weekly logs, was that she had learned the cooperating teacher's routines early on and performed them competently but without reflection. Martha's score on the Supervisory Effectiveness Continuum was a 2.0.

Background and Preparation of Highly Effective Cooperating Teachers

Being able to distinguish between highly effective cooperating teachers and their less effec-
tive peers paved the way to answer the final question of the present study: What experiences, preparation, and influences were prevalent in the backgrounds of the highly effective cooperating teachers? Table 2 includes factors that earlier researchers have connected with the efficacy of cooperating teachers' practices: years of teaching experience, experience with field experience students, working closely with a university supervisor, and formal preparation for mentoring roles. For the purposes of this study, the last factor was broken down into three types of preparation: a workshop, a graduate course, or a graduate degree program.

Years of teaching experience. According to the averages, the number of years of teaching was not related to effectiveness. On average, the highly effective teachers had taught 17.0 years; the less effective teachers, 19.5. But all three teachers who had more than 30 years' experience were in the less effective group, as was the one teacher who had taught fewer than 5 years.

Experience with field experience students. Teachers were asked to estimate the number of field experience students whom they had supervised, including early field experience students, student teachers, and teaching fellows. Those with 20-plus field experience students seem equally split across the highly effective and less effective groups. Inexperience, however, does seem to be associated with the less effective group. All three cooperating teachers who had had fewer than 5 early field experience students were in the less effective group, as was the one teacher who had taught fewer than 5 years.

University supervisor influence. Much of the literature on positive field experiences stresses the need for close coordination of course work and field experiences, as well as shared responsibility between campus- and school-based teacher educators for the preparation of student teachers. More than 30 years ago, the university in this study had adopted a school-based supervision model and had entered into formal partnerships with 12 public schools to form centers for field experience placements. As such, each center is assigned a center coordinator—that is, a university faculty member who places and supervises field experience students at all levels at that site. This model has helped to provide supervisory continuity and ensure that districts have ready access to an individual whom they associate with the university and who is available when problems arise. At many sites, center coordinators have offered short site-based mentoring-skills training for teachers. They also informally model effective supervisory practices as they observe and confer with field experience students.

When asked who had a major influence on their supervisory practices, all but one teacher cited the district's center coordinator. Note that the three least effective cooperating teachers were those who had had the least experience with field experience students, which suggests that they had also had the least exposure to the center coordinator, a factor perhaps related to their less effective supervisory practices.

Mentoring workshop. For the past 8 years, at its four closest centers to campus, the university has offered a summer mentoring workshop for teachers who are involved in the supervision of field experience students. The workshop is based on a model developed and implemented at Ohio University (Murray & Hillkirk, 1998), and it includes training in the use of three major tools: a consultancy protocol, which provides a timed framework for a critical discussion of a lesson plan, unit, or classroom dilemma; reflective observational coaching, which develops skills of conferencing objective data collection; and collaborative action research, which provides a simple structure for teachers to follow as they plan a project together.

Four of the five highly effective teachers had participated in the summer mentoring workshop; the fifth was not in a district where the workshops were offered. Five of the eight less effective teachers had participated in the mentoring workshop. Thus, there does not seem to be a strong relationship between this form of mentoring training and the effectiveness of cooperating teachers.

There were, however, some factors that may have minimized the effects of the training. When the data collector asked trained teachers about their use of the individual tools
Table 2. Factors Related to Cooperating Teachers' Supervisory Practices

<table>
<thead>
<tr>
<th>Teacher ID</th>
<th>Effectiveness Rating (M)</th>
<th>Years of Experience</th>
<th>Field Experience Students (n)</th>
<th>University Supervisor Influence</th>
<th>Mentor Workshop</th>
<th>Systematic Observation Course</th>
<th>Master's Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4</td>
<td>5.0</td>
<td>10-14</td>
<td>5-10</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Teacher leadership</td>
</tr>
<tr>
<td>A1</td>
<td>5.0</td>
<td>15-19</td>
<td>20+</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Teacher leadership</td>
</tr>
<tr>
<td>X3</td>
<td>5.0</td>
<td>25-29</td>
<td>20+</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Reading/language</td>
</tr>
<tr>
<td>B3</td>
<td>4.7</td>
<td>10-14</td>
<td>5-10</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Teacher leadership</td>
</tr>
<tr>
<td>A3</td>
<td>4.7</td>
<td>15-19</td>
<td>20+</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Teacher leadership</td>
</tr>
<tr>
<td>X2</td>
<td>3.7</td>
<td>15-19</td>
<td>5-10</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Counselor education</td>
</tr>
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<td>C1</td>
<td>3.3</td>
<td>30-34</td>
<td>20+</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
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<td>3.3</td>
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<td>X</td>
<td>X</td>
<td>Instructional technology</td>
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<tr>
<td>B1</td>
<td>3.0</td>
<td>5-9</td>
<td>&lt;5</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Online master of science</td>
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<tr>
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<td>&lt;5</td>
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<td>X</td>
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<td>Gifted and talented</td>
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<tr>
<td>A2</td>
<td>2.7</td>
<td>30-34</td>
<td>20+</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
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<td>2.0</td>
<td>30-34</td>
<td>20+</td>
<td>X</td>
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they had learned in those workshops, they reported that they were not using them—at least not as they had been taught. As such, training without sustained follow-up was associated with low levels of implementation. The question remains whether trained teachers would be highly effective mentors even with sustained postworkshop support.

Advanced degrees. Every teacher in the highly effective group had completed a master's degree, whereas five of the eight less effective teachers had done so. All degrees had come from the nearby public university, except that of the one less effective teacher who had completed an online degree from a different institution. One strong theme that emerged was that the teachers in the highly effective group were disproportionately likely to have specialized in teacher leadership in their master's degree program.

The teacher leadership specialty attracts many local teachers who want to be prepared for leadership roles in mentoring, curriculum development, and school improvement. In addition to taking the core courses of curriculum, instruction, and research (required for the master's degree in curriculum and instruction), they take courses that prepare them for leadership roles. When asked about influences on their development as cooperating teachers, all five highly effective teachers mentioned one course in the teacher leadership sequence: Systematic Observation and Analysis of Instruction. Some of the resources used in that course are Acheson and Gall's Clinical Supervision and Teacher Development (2003) and the Association for Supervision and Curriculum Development's videos and facilitator resources for Another Set of Eyes (1987) and Improving Instruction Through Observation and Feedback (2002). Teachers learn ways to collect and display data from classroom observations, including qualitative and quantitative techniques. They practice these techniques via scripts, on videotapes, and in classrooms. Participants also practice conducting pre- and postconferences and providing nonjudgmental, developmentally appropriate feedback using activities from Boyan and Copeland's Instructional Supervision Training Program (1978) and the workshop materials from two programs of the Association for Supervision and Curriculum Development (2002): “Different Models of Providing Classroom-Based Assistance” and “Approaches to Working Closely With Teachers.” They also spend several hours improving their skills by videotaping their classroom teaching and analyzing the video recordings, using guidelines from the National Staff Development Council (Richardson, 2007).

Additional factors. Teachers cited additional factors related to their supervisory practices. All cooperating teachers but one noted that one or more peers had been important in shaping their practices. Another influence was that of participation in the National Board for Professional Teaching Standards. The only two teachers in the study who had participated in the process were rated as being highly effective, and they cited the process as being influential in changing the way that they supervised and provided feedback.

Implications for Teacher Educators

Supervision of clinical experiences has too often been haphazard, loosely structured, and marginally connected to university course work (Darling-Hammond, 2006). Whether the course work they took was causal or relational to their strong skills, these highly effective cooperating teachers are clearly capable of providing the kind of successful clinical training experiences called for in teacher education reform (Darling-Hammond & Baratz-Snowden, 2005). Strong examples of successful practice came from interviews with student teachers. When asked how they felt when their cooperating teachers intervened to rescue them from a serious problem, student teachers who were placed with the highly effective teachers felt relieved rather than undermined. Because they were so used to team-teaching with their cooperating teachers, they were accustomed to sharing leadership in front of children and casually being corrected or reminded. Their responses suggest that cooperating teachers can shape novice teachers' dispositions about receiving...
constructive criticism aimed at improving teaching effectiveness. Such an ability is of great interest to teacher educators because of increased emphasis on operationalizing and assessing preservice teacher dispositions, especially during field experiences.

Once highly effective cooperating teachers were differentiated from their less effective peers, it was possible to look at background and intervention factors that may have been associated with the effectiveness levels. Three factors consistent in the highly effective group were (1) having taught for 10 to 29 years, (2) having supervised more than five field experience students, and (3) having had sustained influence from the university supervisor. All these variables fall into the category of experience—a finding that suggests that when making decisions about student teaching placements, teacher educators should either select cooperating teachers with ample teaching and supervisory experience or provide them with extra support for their development as mentors.

The most powerful association evident in this study was with graduate-level preparation in supervision. Four of the five most effective teachers in this study had master's degrees in teacher leadership, and all five had taken a graduate course focusing on systematic observation and feedback, as well as conferencing skills. Current data do not necessarily support causality: It may be that the teachers who were most interested in and capable of good supervision just naturally gravitated toward teacher leadership. But it is equally plausible that the graduate course work gave these teachers the deep preparation that they needed to articulate the beliefs behind their practices and, likewise, use practices congruent with those beliefs. Teacher educators may promote this supervisory proficiency by making course work convenient and affordable for teachers, with strategies such as tuition waivers and off-campus program delivery. These trained teachers can then be part of a mentoring system for cooperating teachers who need extra support—especially, those new to their roles.

Teachers value short-format mentoring workshops delivered at school sites, although such workshops do not appear to have long-lasting effects without sustained follow-up. One implication is that if we want to see continuing effects of mentoring initiatives on the practices of cooperating teachers, we need to maintain the priority of those initiatives with the time and resources. Beyond that, there were hints that the level of implementation may have been underestimated in this study. There was little evidence that teachers were using the tools that they had learned in a mentoring workshop (i.e., in their original form); in fact, the teachers' comments suggested that they had simplified or modified those tools and were using them in other ways. For example, one tool was a consultancy protocol, a group lesson critique. With no assigned time to meet as groups, teachers did not continue with the group protocols, but many described using the questions from the protocol as they individually worked with their student teachers on lesson and unit planning. An implication for teacher educators is that, at sites where mentoring training has been delivered, facilitators should learn, through follow-up, what is and is not being implemented and whether some techniques may have been modified so that they better fit teachers' schedules and classrooms.

Another implication from this study derives from the strong theme in the interview data that the university supervisory plays a powerful role in shaping effective supervision. Although the full-time center coordinator model described in this study is expensive, these findings suggest that the continuity, accessibility, and professional modeling of a site-based university supervisor make it well worth the price in terms of the quality of the field experiences. It also suggests that the supervisory load of these professionals needs to be kept at a level where they can attend to the development of teacher mentors.

Suggestions for Future Research

More research is needed to determine whether the findings in the present study are valid or
whether they are compromised by attitudinal and personal characteristic threats. One strong finding was that the cooperating teachers with graduate preparation in teacher leadership were disproportionately represented in the highly effective group. As such, an experimental design should be used to test whether it is the influence of that graduate preparation that caused them to excel, rather than their own predispositions to be good mentors. Whereas random assignment of participants to treatment and control would prove difficult in public school settings, a pre- and posttest model or a matched-pairs assignment would be feasible, and the Supervisory Effectiveness Continuum could be used as a dependent variable.

Additional research is also needed to explore a contradictory finding—namely, that although cooperating teachers who had participated in a mentoring workshop were not implementing the skills learned in that workshop at a high level, they valued what they had learned and almost unanimously thought that the workshop should be required of future cooperating teachers. Deeper questioning about what current cooperating teachers found most beneficial about the workshop could provide insight into the skills that they are most motivated to sustain and how levels of implementation might be increased. The Supervisory Effectiveness Continuum could also be revised to match the skills that they decided to focus on, and it could be used to assess implementation near the end of the student teaching semester.

One final research direction was suggested by the findings for the National Board Certified Teachers in the study. Although only two of the cooperating teachers had completed the National Board for Professional Teaching Standards process, they were both highly effective and cited the positive influence of that process on their development as supervisors. Future research in districts with higher numbers of National Board Certified Teachers might well examine the relationship between participation in the certification process and effective supervisory practices.

Appendix A: Interview Protocol for the Cooperating Teachers

Midpoint Conference

1. When you think of providing "feedback," what comes to mind?
2. (a) When are the most desirable times to talk with your student teacher about his/her teaching performance? (b) Why?
3. (a) How frequently do you meet and how long does a typical feedback session last between you and your student teacher? (b) What kinds of things affect the length of the session?
4. What are the advantages and disadvantages of oral feedback?
5. What are the advantages and disadvantages of written feedback?
6. What are two specific things that you recently told your student teacher that he/she did well?
7. What are two specific things that you recently told your student teacher that he/she needed to improve?
8. (a) What are the questions your student teacher asks repeatedly about his/her teaching performance? (b) How do you usually respond?
9. Did you have your student teacher collect any data based on observation of your teaching or students in the classroom? If so, please describe the circumstances and outcome.
10. Did you have your student teacher observe other teachers in the building? If so, please describe the circumstances and outcome. Did you (or others) use any of the following practices with your student teacher? If so, please describe the circumstances and outcome.
   • Consultancy Protocol, or some other form of shared lesson plan critique
   • Collaborative Action Research, or some other systematic collection of data for classroom improvement
• Reflective Observational Coaching or another form of clinical supervision (explain)
• written reflections or a journal to be shared in some form
• audio or videotaping

11. Do you and your student teacher regularly discuss student achievement? If so, please describe the circumstances and frequency.

12. What else do you think is important about feedback that I have not asked?

Final Conference

1. Approximately how many other field experience students/student teachers/fellows have you worked with in the past? Would you describe your experience with this student teacher as typical? If not, what was different?

2. Was this student teacher a 316 field experience student with you? Is there a difference when you have a student as a 316 prior to student teaching?

3. In what form do you usually provide feedback—oral, written, or a combination of both? Do you ever write yourself notes that help you to remember what you want to tell an ST even if you don’t share those notes directly with her/him? Provide examples.

4. (a) How long does a typical feedback session last? Include “on the fly” feedback, like that which occurs on the way to recess or in the hallway. (b) Did the length of the feedback sessions change during the last eight weeks of the semester? If so, in what way did the sessions change and why?

5. (a) What are the questions your student teacher asks repeatedly about his/her teaching performance? (b) How do you usually respond? (c) In what way did these questions change over the semester and why?

6. (a) What are the topics you and your student teacher frequently talked about during a feedback session? (b) In what way did these topics change over the semester and why? (c) Did the midterm conference with the center coordinator or any of her observations have any effect on your later feedback? (c) What topics would you like to discuss that you never have time for?

7. If a lesson that your student teacher is teaching is going from bad to worse and it is highly desirable that he/she can change direction, what would you do—intervene or allow the lesson to proceed? Explain how you would handle the situation and why.

8. What was the most significant thing you learned about feedback practices this semester? What would you keep? What would you change?

9. Did you have your student teacher collect any data based on observation of your teaching or students in the classroom? If so, please describe the circumstances and outcome.

10. Did you have your student teacher observe other teachers in the building? If so, please describe the circumstances and outcome.

11. [For teachers who were in the mentoring workshop] Did you (or others) use any of the mentoring tools with your student teacher? If so, please describe the circumstances and outcome.

If not, why are you not using these tools? Do you use them in any other situations? What conditions would promote their use? Should we be teaching something else in the mentoring workshop?

12. Should cooperating teachers have preparation for their mentoring roles? If so, what should the content be? Should it be required or optional?

13. What else do you think is important about feedback that I have not asked?
Appendix B: Sample Time Log

Student Teaching Grid

Semester: 

<table>
<thead>
<tr>
<th>Week of Jan</th>
<th>Week of Jan-Feb</th>
<th>Week of Feb</th>
<th>Week of Feb-Mar</th>
<th>Week of Mar</th>
<th>Week of Mar-Apr</th>
<th>Week of Apr</th>
<th>Week of Apr-May</th>
<th>Week of May</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-21</td>
<td>24-28</td>
<td>31-04</td>
<td>7-11</td>
<td>14-18</td>
<td>21-25</td>
<td>7-11</td>
<td>21-26</td>
<td>28-1</td>
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<td>#1</td>
<td>#2</td>
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<td>#13</td>
<td>#14</td>
<td>#15</td>
<td>#16</td>
<td></td>
<td></td>
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</tbody>
</table>

Responsibilities

- Helper
- Lunch Count Attend
- Morning Work
- Word Wall Words
- Reading Skills
- Guided Reading
- Book Browse
- Math
- Themes

Key:
O = Observe
A = Assist
T = Teach
TT = Team Teach
### Appendix C: Supervisory Effectiveness Continuum

<table>
<thead>
<tr>
<th>Level</th>
<th>1: Ineffective Supervision</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Highly Effective Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusively</td>
<td>Exclusively brief &quot;on the fly&quot; feedback</td>
<td>Mixed/Inconsistent</td>
<td>Some evidence of both brief and in-depth feedback</td>
<td>Strong, consistent evidence of both brief and in-depth feedback</td>
<td></td>
</tr>
<tr>
<td>absent oral and written feedback as semester progresses</td>
<td>Oral feedback dominant; no or limited evidence of written feedback</td>
<td>Mixed/Inconsistent</td>
<td>Some evidence of both oral and written feedback</td>
<td>Strong, consistent evidence of both oral and written feedback</td>
<td></td>
</tr>
<tr>
<td>Sporadic/absent feedback as semester progresses</td>
<td>Feedback lacking as term progresses except at midterm; little evidence of sustained feedback</td>
<td>Mixed/Inconsistent</td>
<td>Some evidence of sustained feedback over semester</td>
<td>Strong, consistent evidence of sustained feedback over course of semester</td>
<td></td>
</tr>
<tr>
<td>Feedback not supported by specific examples</td>
<td>Feedback rarely supported by specific examples</td>
<td>Mixed/Inconsistent</td>
<td>Feedback often supported by specific examples</td>
<td>Feedback consistently supported by multiple, specific examples</td>
<td></td>
</tr>
<tr>
<td>Avoidance of negative feedback when problems arise</td>
<td>Problems occasionally hinted at with ST but not directly addressed</td>
<td>Mixed/Inconsistent</td>
<td>Some evidence of direct communication with ST when problems arise</td>
<td>Direct communication with ST when problems arise</td>
<td></td>
</tr>
<tr>
<td>Emphasis on compliance or CT replication</td>
<td>Most emphasis on compliance; minimal evidence of ST autonomy in unit planning</td>
<td>Mixed/Inconsistent</td>
<td>Some focus on ST growth and autonomy</td>
<td>Consistent emphasis on ST growth and independence</td>
<td></td>
</tr>
<tr>
<td>Superficial feedback/questions</td>
<td>Most interaction focused on personal issues; occasional question about instructional delivery</td>
<td>Mixed/Inconsistent</td>
<td>Some evidence of feedback/questions that encourage reflection</td>
<td>Feedback/questions that consistently encourage reflection</td>
<td></td>
</tr>
</tbody>
</table>
References


Characteristics of Highly Effective Cooperating Teachers

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