Is the Hunter Model a Recipe for Supervision?

A study of the South Carolina PET program suggests the benefits and potential pitfalls of implementing Hunter's recommendations.

In last December's *Educational Leadership*, we reported that the Program for Effective Teaching (PET), a Hunter-based staff development effort in South Carolina, has yet to produce perceivable changes in overall student achievement (Mandeville and Rivers 1988). We also noted Hunter's assertion that approximately two years of adequate coaching are necessary for teachers to achieve the artistic teaching level. Our recent study of PET yielded other intriguing findings about coaching and its relationship to achievement.

In our study, 199 PET-trained teachers—83 percent of those surveyed—returned a questionnaire that dealt primarily with various aspects of the initial PET training and subsequent coaching. We gathered information on both the quantity and the quality of coaching; then we examined whether either variable was related to student achievement. The study was limited to teachers of self-contained classes in grades 1-4. This sample included 53, 79, and 67 teachers who were trained in PET during the first, second, and third years of the program respectively (PET cohorts) as well as a comparable sample of 62 teachers who had not been trained in PET (NOPET). We were able to match *to each teacher* his or her students' test scores from the spring 1987 testing, those scores having been adjusted for earlier test performance.

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Responses to Training and Application

Over 95 percent of the PET teachers responded in the "agree" or "strongly agree" categories to three items designed to evaluate the clarity and organization of the presentations, the extent to which principles of learning were modeled, and the relevance and applicability of the material to classroom teaching. The teachers were also very positive about the coaching they received during training, with 62 percent responding that it was "excellent" and another 32 percent, that it was "good."

The teachers also reported using PET on a regular basis. About two of every three respondents reported daily use of PET concepts in forming their lesson plans, and about the same number indicated weekly use of PET concepts and terminology in discussions with colleagues.

Furthermore, at least 85 percent responded that PET had fostered self-confidence in their own teaching ability, better understanding of classroom procedures, improved classroom performance, and incorporation of new techniques into their teaching. These positive responses were given by all

three PET cohorts; therefore, they could not be attributed merely to the initial enthusiasm about new programs that quickly wears off.

How Much Coaching Occurred?

Coaching is Hunter's term for the formative observations and conferences that are an essential component of her program. In the PET program, coaching includes classroom observation and note taking (called *script taping*), analysis, and conferencing by a trained observer. The PET program also includes pre-observation conferences, although Hunter believes they are unnecessary. In our study, the most recent group of trainees reported they received an average of 2.8 coaching observations per year—more than the average of 1.7 observations per year reported by earlier trainees. This increase suggests that PET trainees receive more coaching during the first post-training year than in subsequent years or that there has been a recent emphasis on coaching.

Averages like these offered one measure of the amount of coaching, but for teacher-level analysis it was necessary to specify some cutoff point—a minimum amount of coaching—and then identify the number of teachers who satisfied the requirement. The minimum we chose was *at least one coaching observation per year*.

Moreover, we applied other restrictions to ensure that the coach had completed second-cycle PET training. The use of these restrictions does not mean that we consider this amount of coaching adequate; undoubtedly, both the quantity and quality of the coaching teachers receive influence their effectiveness; we restricted analyses of coaching quality to this subsample of PET trainees to be more confident of the validity of the results. By this definition, 57 percent of the 199 responding PET teachers were coached.

That only 57 percent of the PET teachers were coached at least once yearly by a coach who had received two cycles of training suggests that the quantity of coaching was insufficient. Showers, Joyce, and Bennett (1987) have estimated that about 25 practice episodes are needed to effect complete transfer of new strategies in complex models of teaching. Of course, trainers typically encourage teachers to practice on their own, but the teachers most in need of practice are those most likely to avoid risking the discomfort of such attempts (Joyce and Showers 1983). An optimal number of observations is difficult to estimate, but only 7 percent of the PET teachers in our sample reported five or more coaching sessions per year, a number far from the recommended standards.

There are several possible explanations for such limited coaching. First, the qualified observers, because of other responsibilities, may have had insufficient time to do more. Second, some supervisors (or the district staff who directed them) may have assigned a low priority to coaching. Third, districts were encouraged to select exemplary teachers for the first cohort of PET trainees, and principals may have been satisfied with the performance of most of these teachers without additional coaching. A fourth possible reason is that many principals felt unprepared to coach the PET model and, therefore, opted to coach as little as possible. Hunter (1986a), supporting this position, contends that not only does it take two years for teachers to achieve a conditional knowledge of teaching, it also takes two years for supervisors to become adequate coaches.

Pavan (1986) contends that the inadequate preservice training of school administrators creates difficulties in implementing the model, and Hunter (1985) has acknowledged that the resulting lack of skill is a common problem. Since South Carolina principals are required to take only one course in supervision, many of them may feel insecure about their coaching abilities. In addition, Smith and Andrews (1987) suggest that coaches need regular supervision to develop and improve their conferencing skills. If so, they would naturally be reluctant to coach until they developed competence and felt more confident.

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How Good Was the Coaching?

By the term *quality of coaching*, we mean the degree to which coaches' behaviors have been consistent with the Hunter approach, as measured by the questionnaire. Since our data are based on teacher recollections rather than direct observations of conferencing sessions, however, they are actually measures of *perceived* quality. Our assessment of this construct was based on 18 5-point Likert-type items included in the PET questionnaire. Overall, the responses to these items were quite positive, that is, consistent with Hunter's recommendations; on 12 of the 18 items, over 85 percent of the responses were in agreement with the PET model.

Our main purpose in including these items, however, was not to consider them individually but to conduct a factor analysis to investigate the construct adequately. The factor analysis produced the following four factors:

- Focus—items related to the purpose, objectives, and skills addressed in the conference;
- Analysis—items related to the ability of the coach to engage the teacher in a discussion of the effectiveness and efficiency of the lesson;
- Moderation—items determining the absence of inappropriate or overwhelming suggestions in the conference;
- Equivocation—items dealing with the coach's tendency to point out mis-

takes immediately and to offer unsolicited opinions about how the lesson should have been taught.

The factor analytic results provided three main points for discussion. First, the data indicated that coaches were adhering reasonably closely to the model on the first three factors: Focus, Analysis, and Moderation. Second, the coaches of about half the teachers were deviating from the model on the Equivocation factor, not surprisingly, since PET *permits* the coach to offer unsolicited opinions when he or she believes the teacher is unable to analyze the lesson. However, in light of Hunter's (1986b) opinion that coaches should *not* be quick to point out mistakes or offer unsolicited opinions about the lesson, this finding suggests shortcomings—deviations from the Hunter model—in a considerable amount of coaching. Hunter prescribes instead that the coach should consider the teacher's strengths and draw upon them to collaboratively develop a plan for addressing problems (Hunter 1988a).

Third, two conceptually important items—*asking teachers to describe decisions* and *helping them consider alternatives*—did not achieve the statistical criteria to be included in any of the factors, partly because teachers' responses were less positive on them. According to Hunter, asking teachers to describe instructional decisions should be the focus of the conference; and encouraging them to consider alternatives is crucial for the development of conditional knowledge about teaching. Even when teachers' analysis skills are limited, the coach should emphasize consideration of alternatives.

Thus, in South Carolina coaching has been consonant with Hunter's recommendations in some respects but not in others. Our study of the items in the first three factors—for which the responses were generally in accord with the model—suggests that many of the coaching behaviors involved may be more easily routinized or learned than others. For example, *providing advance information about the purpose of the observation* and *using PET terminology* are coaching behaviors that can become essentially automatic.

Hunter contends that not only does it take two years for teachers to achieve a conditional knowledge of teaching, it also takes two years for supervisors to become adequate coaches.

The subtleties of good coaching are seen in the results for an item from the Moderation factor—*Coach didn't allow me to explain the decisions*—and a nearly parallel item that did not factor—*Coach asked me to describe the decisions I made in planning the lesson*. Ninety-six percent responded positively ("disagree" or "strongly disagree") to the first item, indicating a conference rapport level that *permitted* an explanation of decisions. However, 20 percent of these positive respondents did *not* make a positive response to the second item, indicating that they were not *asked* by the coach to describe decisions. The difference in the two items is in the degree of emphasis. On the first item the coach's interest in teacher explanations was relatively passive; on the second the coach actively prompted the teacher to talk about instructional decisions.

The behaviors represented by the two items on the Equivocation factor and the two excluded items are probably among the most difficult skills to foster in coaches. They encompass rapport, competence in diagnosis, skill in conferencing, and the ability to propose alternatives. Furthermore, they are among the most crucial to teacher improvement. The presumed importance of these four items—and the fact that they correlated significantly—led us to combine them into a composite scale called HI-SKILL. On this scale, the responses of only 19 percent of the PET teachers were positive; 35 percent were highly negative.

One final result that may relate to the quality of coaching involved the responses of PET and NOPET teachers to a question asking for the number of formative observations they desired per year. On average, NOPET teachers requested 2.6 formative observations per year while the three PET group teachers indicated they would like 1.1 to 1.5 annual coaching sessions. Possibly a number of PET teachers felt they had already achieved conditional knowledge of teaching and did not need additional coaching. Perhaps some felt that their coaches were not providing the assistance they needed. Both possibilities suggest problems. A premature assumption by the teacher that he or she had achieved conditional knowledge might foreclose the growth process. Inadequate coaching, on the other hand, would result in wasted opportunities for skill development.

We believe that effective coaching is based on conditional knowledge of pedagogy with a large measure of skill in conferencing. Coaches must have internalized the model and reached the artistic coaching level themselves. Facilitating a teacher's analysis of the lesson, encouraging development of alternative approaches, and conducting the conference in a nonjudgmental way are important components of effective coaching. Unfortunately, our survey suggests that many of these critical attributes are lacking or of dubious quality for one-third to one-half of the teachers in our sample.

Was Coaching Related to Student Achievement?

To determine whether any of the coaching variables were related to student achievement, we used analysis of covariance for classroom socioeconomic status. We found no relation-

ships between student achievement and the quantity of coaching or the perceived quality of coaching as measured by the Focus, Analysis, or Moderation factors. However, there were three results of interest.

First, when compared to coaching by the principal only, coaching by both the principal and a PET trainer had a positive effect on mathematics achievement. Because trainers are required to complete one more training cycle than principals, they may have better internalized the model and therefore functioned more effectively as coaches. Too few teachers received coaching exclusively from PET trainers to allow such a comparison.

The second interesting result was that student achievement in mathematics was greater for teachers with exceptionally positive scores on the Equivocation factor. When we conducted the analysis using the HI-SKILL scale, we obtained even more dramatic results. After adjustment for variation in the socioeconomic make-up of the classes, the difference for the students of teachers with exceptional HI-SKILL scores was over half a student standard deviation higher. However, the high-scoring groups in these comparisons represented only about 13 percent of the teachers in the sample.

That these results applied to mathematics but not to reading achievement was not completely unexpected. Mathematics achievement is more sensitive to school factors—and by implication instructional variations—than is reading achievement (see Mandeville and Anderson 1987, p. 209). One possible reason is that reading ability is more strongly related to extra-school factors than mathematics; another is that mathematics is inherently more structured.

What Were the Standards?

If we assume that the quality of coaching is related to student achievement, then consideration of the qualifications of a coach is in order. To "pass" the first PET training cycle, participants had to attend six days of instruction, develop a set of notes on the content, practice and demonstrate the instructional skills, and participate in four coaching observations. Most participants were also required to obtain a score of at least 80 percent on a written test prepared by the trainer. For those who aspired to be coaches, there were two additional days of training in supervision.

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To qualify for cycle two, individuals had to be recommended by two trainers; but the details of how this screening mechanism has functioned in the past, such as the disqualification rates, are unavailable. During the second cycle, potential coaches observed a minimum of 15 conferences and planned and conducted at least three conferences under the supervision of the trainer. Additional training and supervision could be required at the trainer's discretion (South Carolina Department of Education 1988).

Without a requirement of interjudge reliability, trainers have had considerable latitude in determining whether the above requirements have been met. One can also envision various political pressures that might lead to unwarranted certification. Thus, considerable variability probably exists in the quality of coaches who are certified. This lack of consistency regarding what it means to be a certified coach is a potentially serious weakness. The same concern could also be raised regarding teacher and trainer certification.

From Novice to Expert

In interpreting these results, we see similarities between the PET staff development program and cooking skills. Teaching skills are often communicated from person to person just as favorite recipes are, without exact measurements and rigid instructions. The flexibility of PET and the fact that trainers develop examples from personal experiences suggest a similarity: each cook may practice, experiment, and add individual touches to personalize a recipe; so it is with teaching. The analogy also implies a distinction between following a single recipe and learning to cook. Appropriate and flexible application of teaching and coaching skills requires a level of artistry more comparable to that of an expert chef than that of a novice with a cookbook.

If the central element in PET is ample high-quality coaching, there is need for more refined procedures for the assessment of coaching skills. For a participant who comes to the training with extensive experience and exceptional ability, certification based on the minimum requirements may be appropriate. A participant with a less impressive background, however, is like the novice cook, who can prepare a simple meal but lacks the wide repertoire of skills required of a chef. A crash course in cooking does not ensure artistic performance.

If coaching is collegial, growth-promoting, expert, respectful of the teacher, then teachers are more likely to develop an appreciation for it. Conversely, a teacher who has been subjected to inferior coaching may well develop a distaste for PET. Written comments on our survey indicated that a few teachers in our sample disliked PET. Stallings (1988) reported a similar finding in the Napa-Vacaville study. Thus, attempting to solve the problem of limited coaching by simply requiring each supervisor to conduct more observations would be short-sighted. If more coaching were mandated without well-defined minimum standards of quality, more teachers might develop a dislike for PET.

Food for Thought

Most of the elementary teachers who have been trained in South Carolina are positive about the PET experience, claim to be using PET, and appear enthusiastic about the potential it holds. Furthermore, our finding that

mathematics achievement increased when coaching behaviors were essentially congruent with Hunter's prescriptions—at least as far as our quality indicators were concerned—is very encouraging. This finding suggests that the PET model may be more appropriate to some subjects than to others.

On the negative side, we found that about 60 percent of the PET teachers in our sample received a limited amount of coaching; and for one-third to one-half of those teachers, the coaching departed from Hunter's recommendations in important ways. We have suggested that some principals came to the PET program needing much more supervised practice than the limited amount they received.

How can educators build on these findings? Hunter (1988b) has been consulting with South Carolina trainers to correct what she perceives as "assembly line" aspects of the PET implementation, and coaching was the focus of the 1988 South Carolina PET Conference.

In keeping with Hunter's recommendations and the popular view of principals as instructional leaders, new initiatives to correct deficiencies in coaching should focus on improving the conferencing skills of principals. In some situations, however, approaches in which the role of the principal is *de*-emphasized should be considered; for example, the alternative coaching options used in West Orange, New Jersey: building-level support groups and resource teachers, peer coaching, and active participation by district-level trainers (Donovan et al. 1987).

In closing, we remind the reader that interpretations of our results must be qualified because the data were limited to schools in which early elementary classrooms were self-contained. Given this caveat, however, we believe that our findings related to mathematics achievement are quite important: one crucial ingredient for success is coaching consonant with Hunter's recommendations for conferencing. The most direct evidence for this conclusion was from the data on teacher perceptions of quality; the finding that suggested that trainer-coaches were more effective than principal-coaches was also supportive.

Appropriate and flexible application of teaching and coaching skills requires a level of artistry more comparable to that of an expert chef than that of a novice with a cookbook.

Some will argue that outstanding principals model many of the behaviors recommended by Hunter regardless of whether they have been trained in PET. Many educators will conclude that it would have been preferable to begin from a base of thoroughly trained coaches who had internalized the model and mastered the more difficult conferencing skills. Others will be concerned about the potential for turning the staff development program into a simplistic evaluation tool.

While these arguments have validity, there are at least three reasons to be encouraged about the potential of Hunter-based programs. The first is simply that Hunter's prescriptions are based on accepted instructional theory. The second is that our trainer-coach vs. principal-coach finding suggests that more training produces better coaches (although selection factors probably also operate). Finally, factors such as common terminology, collegial interaction, statewide emphasis, long-term commitment, and cooperation may help to reshape behaviors where changes are desirable.□

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