Reflections on a Hunter-Based Staff Development Project

After three years of steady gains, student achievement scores tumbled. Why?
Throughout the United States, thousands of school districts are implementing professional development programs based on the work of Madeline Hunter. These programs are taking a variety of forms. Although Hunter's theories are grounded in research, few studies have documented the effectiveness of her model. From 1981-1985 the Napa, California, County Office of Education conducted a study designed to measure the effect of the model on teacher behavior, students' engaged rates, and student achievement in reading and mathematics. The two target schools, located in Napa and Vacaville, contained the highest number of Chapter 1 students in the district. The project and findings reported here have implications for the conduct of similar programs.

The Project Model
In designing the Napa/Vacaville Project, we had carefully examined the research on time-on-task, staff development, and effective schools. The Beginning Teacher Evaluation Study (Fisher et al. 1980) indicated a strong correlation between the time students spend on relevant academic tasks (at a high success level) and their achievement in those areas. Fisher also suggested that the teacher behaviors of diagnosis, prescription, lesson presentation, monitoring, and feedback are strongly related to student time-on-task and achievement. However, in observing classrooms and in talking with teachers, we noted that many teachers lacked specific training in these behaviors. Therefore, our model included a comprehensive staff development component to give teachers that training (see fig. 1).

The staff development training consisted of classroom management and effective teaching components. The research of Evertson and colleagues (1980) supplied the basis for the classroom management component. Madeline Hunter's Instructional Theory into Practice provided the foundation for training in effective teaching. Curriculum alignment became a third component during the project's second year. In designing the staff development component, we followed Fred Wood's (1981) five-stage model of Readiness, Planning, Training, Implementation, and Maintenance.

Readiness and Planning
We devoted the first year to building readiness for the project activities and collaborative planning for training and implementation. We made site visits and consultations, interviewed teachers, explained project goals and activities, and conducted a retreat. In interviews held at the conclusion of the project, teachers said that a critical component of the readiness stage had been the two-day retreat. It gave them an opportunity to learn about the project's research base, express their needs and concerns, and meet with some of the researchers on whose work the project was based.

![Shared planning, an activity that emerged during the project, continues.]

**Fig. 1. Project Model**
“During the fourth year, we made specific plans for institutionalizing project practices. Although training and implementation were still concerns, maintenance became a major emphasis.”

Training
Years two and three focused on training and classroom application. The training used the research of Bruce Joyce and Beverly Showers (1980), which suggests that four components—presentation of theory, demonstration or modeling, practice opportunities followed by feedback, and on-site coaching—are necessary for new skills to be internalized and transferred to classroom practice.

We held all training during school hours at locations away from the schools. Substitutes took over teachers’ classes while they attended the sessions. Although the project was funded only for teachers in grades K-4, all teachers, support staff, and the principals from both schools attended training sessions. These sessions consisted of three components.

1. Presentation of theory. “Back-to-school” sessions, which were held before school began each year, emphasized classroom management strategies, reinforcement theory, and provided teachers with time to determine how they were going to use this information during the school year. We held training sessions every two months. During the first training year (year two of the project), the sessions dealt with the decision-making foundation of Hunter’s model and stressed appropriate use of the strategies. Sessions later that year addressed teaching to an objective, diagnosis and prescription, task analysis, and lesson design.

2. Demonstration and modeling. During each session the staff development trainers modeled the principles they taught either in lessons with students in their own training. They occasionally used videotape lessons to demonstrate how certain strategies looked in classroom settings.

3. Practice and feedback. Time was set aside during training sessions for the teachers to practice the new skills in simulated settings. They drew room arrangements, wrote rules and procedures, practiced teaching procedures and giving directions, analyzed objectives in groups, brainstormed motivation and practice strategies to try out.
in their classrooms, and designed and taught lessons to each other. Subsequently the teachers discussed the results of these activities and received feedback from one another and the trainers.

**Implementation**

After each inservice the teachers took the new skills and strategies back to their classrooms. Joyce and Showers (1983) point out that because “conditions of the classroom are sufficiently different from training situations, one cannot simply walk from the training session into the classroom with the skill completely ready for use” (p. 11). To address this issue, the project design included an extensive coaching component.

As teachers began to apply their new skills, they were observed at least twice during each two-month segment between training sessions by the trainers who had conducted the previous session. A substitute teacher took the teacher’s class so that the trainer and teacher could immediately discuss the observation. The principals of the two schools also provided coaching. In addition to attending all the training with the teachers, the principals received additional training in clinical supervision, problem solving, leadership styles, cognitive coaching, and effective meeting management. We encouraged teachers to coach one another, but this venture was only partially successful. Other implementation strategies used in addition to coaching were review and refine sessions, research seminars, and videotape/analysis sessions.

### Table 1

**Teachers’ Instructional Skills**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>44.5</td>
<td>57.5</td>
<td>75.0</td>
<td>63.5</td>
</tr>
</tbody>
</table>

*Means were computed using raw scores
Total points possible = 88.

### Table 2

**Student Engaged Rate**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>84%</td>
<td>94%</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>

*Expressed as mean percentage of engaged rate in reading and mathematics.

### Table 3

**Student Achievement Scores**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>44.5</td>
<td>46.1</td>
<td>48.1</td>
<td>46.4</td>
</tr>
<tr>
<td>Math</td>
<td>49.6</td>
<td>51.4</td>
<td>52.1</td>
<td>51.9</td>
</tr>
</tbody>
</table>

*Expressed as normal curve equivalents.

**Maintenance**

During the fourth year, we made specific plans for institutionalizing project practices. Although training and implementation were still concerns, maintenance became a major emphasis. School staff attended an additional training session on Bloom’s Taxonomy of the Cognitive Domain. Principal training continued. We conducted regular project meetings. Principal Advisory Committees, composed of two or three teachers and the principal, became a vital problem-solving group for each school. Teachers on the committees also served as facilitators and recorders at staff meetings.

In February 1985, a second retreat was held to commemorate the project’s fourth year. Participants from the original retreat, including the researchers, came together to reflect and write about their experiences so that others considering similar staff development programs for school improvement could learn from their efforts. They discussed ways to sustain the project, and both schools developed a plan to address that issue during the next school year.

**Evaluation Design**

Jane Stallings and Georgia Mohlman Sparks (1981) developed an evaluation design to measure the impact of Hunter’s Instructional Theory into Practice training on teacher behavior, student engaged rates, and student achievement in reading and mathematics. Because of early problems with instrumentation, we did not measure teachers’ use of classroom management skills. We assessed teacher behavior through the use of the Instructional Skills Observation Instrument (Wolfe 1982), which measured the quality and appropriate use of the elements of lesson design.

A Time-Off-Task instrument, developed by Stallings for this project, focused on individual students within each classroom and assessed their engaged rates. Sweeps were conducted every five minutes during a 50-minute period. Observations using the Instructional Skills Observation and Time-Off-Task instruments occurred twice during reading period and twice during math each fall and spring.

Standardized achievement tests assessed students’ reading and mathe-
matics achievement. Since the project schools were located in different districts and each district used a different achievement test (the SAT and CAP), we converted scores to normal curve equivalents.

Quantitative Data
Our project design was based on the assumption that effective staff development would assist teachers in improving their instructional practices, which would result in increased student engagement in academic tasks. Increased student engagement was expected to result in higher achievement scores in reading and math. Overall, we met these goals. However, an analysis of the data on instructional effectiveness, student engaged rates, and student achievement by year gives a clearer picture of how the results were achieved and poses some interesting questions regarding staff development practices.

- **Teacher behavior.** Using the Instructional Skills Observation Instrument, we collected data at the end of the planning year and again each spring for the remaining three years of the project. There were significant positive changes in the teachers' appropriate use of instructional skills from the baseline to the end of year three, but scores dropped during the final year (see Table 1).

- **Student engaged rate.** We collected data on student engaged rate simultaneously with data on teachers' use of the instructional skills. Table 2 shows that again there was a significant ($p<.001$) improvement in student engaged rate between the baseline and year three and a reverse pattern in the fourth year.

- **Student achievement.** Perhaps the most critical issue we addressed is how the project affected students' achievement in reading and math. The data followed the same pattern as for teacher behaviors and engaged rate. Students gained in reading and math during the first three years, but achievement scores dropped in year four. The scores of the 102 students who stayed in the project all four years are shown in Table 3.

An analysis of the data shows teachers' scores on the Instructional Skills Observation Instrument and students' engaged rates and achievement test scores were at their peak and the relationships among these variables were strongest at the end of the project's third year but that they had decreased by the end of the fourth year. However, none of the scores dropped below their baseline levels. A detailed analysis by Stallings and Krassavage (1986) compares treatment and control groups.

Qualitative Data
Teachers' and principals' perceptions of project success, as revealed during conversations and in their writing during the final retreat, stand in stark contrast to the fourth-year decline in scores. Their accounts speak glowingly of an increase in collegiality, collaborative work, and shared responsibility for decisions in their schools.

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“The most plausible explanation for the fourth-year decline has to do with the coaching of teachers, an area that received a great deal of attention, but perhaps not enough.”

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ers into their classrooms for the scheduled observations, even to request additional visits. Teachers moved from seeing coaching as a theoretical idea to a real help. During the fourth year, although project staff visited the schools frequently, trainers no longer made regularly scheduled classroom observations. Teachers were encouraged to coach one another. However, they did not feel they had the expertise to do this successfully, and only a few adopted "colleague coaching." It is also important to note that both schools had placed several other district projects on hold during the first three years of the project. In the fourth year both schools found it necessary to rejoin the mainstream. One school adopted a new spelling program and began work on a writing project. The other school joined in an extensive district reading program and instituted a computer lab. The elimination of scheduled coaching observations and the added responsibilities of the new programs resulted in teachers receiving very little feedback on their teaching during the maintenance year of the project.

Apparently teachers had not reached the point of routine use that Joyce and Showers (1983) term "executive control." "Executive control" describes the point at which a person has an in-depth rather than a superficial understanding of the purpose and rationale of the skill. Executive control of a skill consists of knowing when and how to use it appropriately, given varying circumstances, students, and curriculum areas. At a time when teachers needed continued support and feedback, they were left to practice independently.

We paid careful attention to research and successful practice in designing and implementing the Napa/Vacaville Project. The results of years one through three confirm this. However, fourth year data suggest that the practices were not sufficiently routinized to preserve the growth that had been attained. Perhaps future projects will have greater success in preserving positive changes if developers follow Napa County's effective practices of the first three years and profit from their fourth-year experience by building in the time and support critical to sustaining growth.

References


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