

# Secondary Education Renewal in Pittsburgh

To improve the achievement of secondary students, Pittsburgh first designed a program to upgrade the skills and subject matter knowledge of its teachers.

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Things often seem to run at crossed purposes in education. When the public scrutinizes an educational system, it starts at the top and works down. The question is, "Why are some of the graduates of the public educational system in such a sorry state?" The recent focus on education in America with its concentration on the secondary schools exemplifies this. And yet, when educators begin to address the problems, they more often than not begin at the bottom and work up.

There are at least two reasons for this interesting juxtaposition. The first is a time-tested argument: "Well, when

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Pittsburgh is a member of the community

these students come in from the XYZ school (read junior high, middle, elementary, nursery, as appropriate), they aren't prepared for what they have to do here." School improvement efforts have moved down the grade levels in part because of the logic of this argument. They have done so also because elementary schools are fairly malleable. Frankly, they're an easier nut to crack than are the high schools.

Two and a half years ago the Pittsburgh Public Schools, following a period of self-reflection, concluded that while many problems do not originate in the high schools themselves, many others do. For this reason, a well-conceived school improvement effort must address all levels, including the high schools. The hard nut could no longer be avoided.

However, the literature on school improvement offered little help. Few writers provided any counsel concerning high school improvement; fewer still had actually tackled the problem. Merely defining the issues became a major first task. The literature speaks of career ladders for teachers, of diversifying their participation in the educational process. Yet in Pittsburgh, the average high school teacher has taught for 15 years, 11 of them in the same building. The formal training of these "average" teachers is concentrated on subject matter content, often to the exclusion of pedagogical skills. They have completed a master's degree, but again, on the average, over five years ago. There are no requirements for continuing education for Pennsylvania certification. Thus, program developers saw the need for a program that would focus on relevant teaching skills, as well as provide professional renewal through a presentation of recent developments in each teacher's field. The program would include experiential activities in local business

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and industry related to the content of the program.

#### **Early Development**

In the fall of 1981, Pittsburgh's superintendent presented an outline for such a program and convened a task force to begin its development. The plan called for the creation of a unique teachers center to be housed in Schenley High School, a fully operating comprehensive high school in the heart of the city. Secondary teachers in the district would be required to participate in an eight-week "mini-sabbatical" during which they would be involved in the Center's seminars, classes, and clinical training program; conduct independent research; or engage in one of a variety of externships.

Three relevant groups of teachers were quickly identified. The first group, *Resident Staff*, would be comprised of teachers who were part of the Schenley High School Teacher Center faculty. Each would have a reduced teaching load. Each would also plan and lead seminars, serve as a clinical instructor, observe and be observed by visiting teachers in the classroom, or coordinate and provide some of the other planned activities of the center (such as independent research and externship placements). The second group, *Visiting Faculty*, were teachers who would be removed from their base schools for eight weeks to participate in the Teacher Center's programs. The third group, *Replacement Staff*, would substitute in classrooms for teachers currently participating in the Teacher Center. All of these teachers are certified in their subject areas; all teach full time; and all have considerable tenure in the district. They are decidedly *not* substitutes in the usual sense.

The first year of development (1981-82) was spent in defining roles, selecting staff, planning program content, scheduling, involving the union, and evaluating. A number of subcommittees comprised of teachers, administrators, and community representatives were formed, each charged with addressing one of these areas of concern. In 1982-83, development began in earnest.

The district recognized that the appropriateness, relevance, and ultimate success of the Teacher Center would depend on its responsiveness to the needs of teachers. For this reason, a survey of the more than 800 secondary

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**Figure 1. Secondary Teachers' Perceptions of Needs Relevant to Professional Development**

Area	Topic*
Instructional Skills	Recent developments in research on teaching and learning Teaching study skills Instructing students with special needs (in mainstream classes) Technological update (educational hardware and software, etc.) Motivational theory and technique
Content Area	Knowledge of subject area Recent curricular developments in subject area Innovations in field of study Application of subject area to world of work Review of appropriate supplemental and enrichment materials
Classroom/Student Management	Classroom discipline and control Options for enforcement of rules and regulations for students Approaches to dealing with difficult students Dealing with absenteeism Preventing students from dropping out
Human Relations	Teacher burnout and stress management Recent findings on adolescent psychological development Cooperative problem solving between teachers and administrators Sharing the responsibility for the educational enterprise
Technical/Routine Management	Facilitating recordkeeping for students Judicial decisions and legislation affecting educational practices School district management (administrative viewpoint) Efficient handling of routine management duties

\*Topics are based on a survey of 805 secondary teachers. Included here are those common to all subject areas; separate analyses were carried out by content area as well.

teachers in the district was conducted to determine their needs for professional development. This assessment included specific content related to five areas: (1) instructional skills, (2) subject area content, (3) classroom and student management, (4) human relations, and (5) technical routine management.

The committee that conducted the needs assessment analyzed the data for the district as a whole and by subject area of respondents. It was then possible to categorize needs (presented in Figure 1) identified generally across all subjects, as well as those unique to certain content areas. This needs assessment became the foundation for all subsequent development efforts.

Then came a full year of program development, which involved more than 180 teachers who voluntarily served on some 15 committees. The

result of this considerable labor was the comprehensive program, which began with the first cycle of Visiting Teachers (approximately 50) when the Schenley High School Teacher Center opened in the fall of 1983.

#### The Program for Visiting Teachers

Prior to arriving at the Teacher Center, visiting teachers meet individually with the replacement teacher who will be assigned to their classes, and with a resident teacher from the Center. The purpose of the meeting with the replacement teacher is to coordinate instruction to be delivered to students and minimize disruption in the absence of the regular teacher. Continuity of instruction is assured by continual contact between the visiting teacher and the replacement teacher during the cycle.

The second meeting, that with the

resident teacher, is to orient the visiting teacher to the Teacher Center program and to develop an Individual Study Plan and schedule. The Visiting Teacher program focuses on three broad areas: (1) instructional skill development, (2) teachers' understanding of adolescent development, and (3) review of and update in the teacher's content area. Each of these three areas is subdivided into required CORE offerings and CHOICE options.

The CORE content, which undergirds the entire program, is an examination of instructional practice based on the Pittsburgh Research-based Instructional Supervisory Model (PRISM). The PRISM model is a statement of the elements of effective instruction as culled by local staff development specialists from the research on instructional practice. Visiting teachers study the model's components and theoretical bases, and apply it in guided and independent practice.

The second CORE component consists of five research-based seminars developed and conducted by resident teachers. Each is concerned with some aspect of the psychological, emotional, or physical development of adolescents, and the impact of those factors on student learning. A required case study of a student provides an organizing theme for all of the activities in the adolescent development area.

The third and final CORE element focuses on teachers' content areas. Teachers receive an overview of the district's entire curriculum, and explore the articulation of their own subjects across grade levels and with other subjects in the curriculum. They then work within their content areas on a number of instructionally relevant issues such as questioning skills, grouping for instruction (a strategy that is rarely used in secondary classrooms), and test construction.

The CHOICE offerings at the Center help teachers to tailor the program to their own interests. Each teacher selects a specified number of sessions from a variety of options. There are opportunities to expand knowledge within content areas, or to carry out an independent research project. A number of computer options are also available, ranging from the highly technical to courses of more general interest. Finally, in externship placements, visiting teachers can work

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for an extended period of time at one of several cooperating businesses, industries, or universities in the Pittsburgh area. This enables teachers to spend time with other professionals who use the same content area knowledge or skills that the teacher uses in the classroom.

The last and most critical phase of the visiting teachers' program begins when they return to their home schools. There they engage in follow-through activities that support and further the growth that was begun at the Teacher Center. This follow-through process actually begins during the last weeks of the visit to the Center. The principal of each high school in the district meets with the visiting teachers from that school to review the program in which they have participated, and to assist in



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laying out a plan for the continued development of newly acquired or refined skills. Thus, the principal and teacher are jointly responsible for maintaining and supporting the Teacher Center's objectives.

#### **Resident Teachers: Differentiated Staffing**

A central element in the success of the Center's program is the role played by the resident staff of Schenley High School, whose responsibilities are well beyond the traditional functions of

classroom teachers. Members of the resident staff develop and teach seminars on a wide range of educational topics for their visiting colleagues; their classrooms serve as models of good instruction, and they direct the clinical program for visiting teachers. The 30 clinical resident teachers have reduced teaching loads to enable them to plan with, observe, and confer with visiting teachers—skills for which they have received special training.

Clearly, the resident staff of the Center has an extensive contact with their

colleagues, which is considerably different than any they have ever had before. Cast in the role of "teachers of teachers," they are assigned the responsibility of critically reviewing the instructional performance of their colleagues. It is a new set of roles, arising from the unique staffing requirements of the Teacher Center.

#### Data-Based Program Development

The Center's program represents an extremely complex educational innovation with many features that are unique to secondary education. To ensure that the full potential of the Center is realized, the district's leadership has integrated an evaluation research component into the planning and development processes.

For the past five years, the Pittsburgh school district has worked with the Evaluation Unit of the Learning Research and Development Center to develop strategies for improving the substance and use of evaluation research. These efforts are based on two convictions. First, decision makers often fail to learn all they might from past experiences with educational innovations because the record of what happened is either uncollected or fragmented. Second, considerable time and effort can be saved by monitoring the quality of an implementation process and making mid-course corrections as a program is being developed.

One of the results of this work has been the development of an integrative, data-based approach to program design



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and implementation. The key features of the Pittsburgh District's general integrative use of evaluation research include:

- Rich documentation of planning and implementation processes
- Availability of a research capability to provide data on the quality of implementation.

A documentation team observes the implementation process and provides a detailed chronicle of events and issues. Formative evaluative activities constitute a complementary research strategy that provides the program's leadership with accurate data on the quality of the implementation. Finally, a coordinated program of impact studies seeks to assess the complex effects of the Center. Through this three-pronged research strategy incorporating documentation, formative evaluation, and impact studies, the district is attempting to ensure that the potential of the Center is fully realized, and that others, both within the district and across the country, can benefit from its experience. □

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