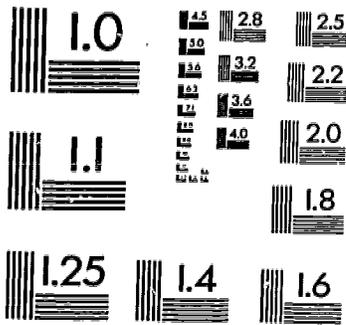


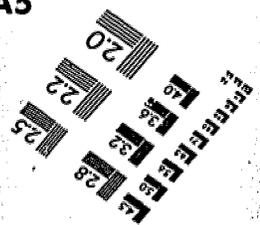
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ABSTRACT

This sourcebook, prepared to assist New Jersey urban school principals and administrators, presents research findings and describes exemplary programs related to the Urban Initiative, a school improvement project of the New Jersey Department of Education. The source book consists of three major sections. Section 1 reviews effective schools research and discusses the skills needed by the principal in the areas of instructional leadership, administrative management, and school improvement. It provides suggestions for strengthening principal leadership through the removal of barriers to effective leadership, the selection of new principals, and increased professional development of those currently employed. Section 2 presents a directory of exemplary practices and programs for 11 content areas: basic skills improvement, secondary compensatory and bilingual education, computer instruction, disruptive students, drug and alcohol abuse, principal leadership, school attendance, secondary special education, student dropouts, writing instruction (K-12), and youth employment through vocational education. The material in each content area includes a listing of characteristics of successful practices, a discussion of the relevant literature, and descriptions of several exemplary practices and programs. Section 3 provides guidance to district staff in the management of school improvement. It focuses on the following topics: understanding the change literature, planning implementation, providing leadership for school improvement, selecting implementation strategies, and designing and conducting staff development efforts. A 12-page bibliography and 3 appendixes--Index of Exemplary Practices and Programs Nationwide, Index of Exemplary Practices and Programs in New Jersey and a List of Materials for Directory of Exemplary Practices and Programs--are included. (KH)

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THE URBAN INITIATIVE SOURCEBOOK
A DISCUSSION OF THE LITERATURE AND
A DIRECTORY OF EXEMPLARY PRACTICES AND PROGRAMS

Saul Cooperman
Commissioner of Education

Arnold Webb
Assistant Commissioner, Educational Programs

Prepared for the Urban Schools of New Jersey
by the New Jersey State Department of Education
and Research for Better Schools, Inc.

August 1985

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FORWARD

THE URBAN INITIATIVE SOURCEBOOK
EVALUATION FORM

The New Jersey Department of Education and Research for Better Schools staff are asking for your help to improve and update the Urban Initiative Sourcebook. Please answer the following questions. In the space provided for "Comments" please make specific suggestions for the next revision of the Sourcebook.

1. To what extent did your understanding and knowledge of research and development (R&D) based information increase as a result of reading the Sourcebook?

0 1 2 3 4 5

None

A Great Deal

Comments:

2. Is the overall information practical, and useful for problem solving and long-range planning?

0 1 2 3 4 5

Not Useful

Very Useful

Comments:

3. Did you take any action as a result of reviewing the Sourcebook?

0 1 2 3 4 5

Not At All

A Great Deal

Comments:

4. The level of organization was:

0 1 2 3 4 5

Poor

Excellent

Comments:

5. To what extent are the promising programs and practices in the Directory section of the Sourcebook current, accurate, appropriate and useful?

0 1 2 3 4 5

Not At All

Very Useful

Comments:

6. To what extent did the information in the Sourcebook acquaint you with key ideas and concepts from the effective schools research?

0 1 2 3 4 5

Not At All

A Great Deal

Comments:

7. Did you share this information with anyone else?

0 1 2 3 4 5

No One

Many

Comments:

8. What specific suggestions can you make for improving the Sourcebook?

9. Will you use any of this information to design, implement and evaluate a staff development plan?

0 1 2 3 4 5

Not At All Totally

Comments:

10. In using this information as a set of guidelines for action what follow up activities are necessary?

11. Does the Sourcebook provide specific information about conditions for effective implementation such as costs, staff time and impact?

0 1 2 3 4 5

Not At All Totally

Comments:

12. Are there any additional topics about which you would like information?

No _____ Yes _____

Which Topics?

Please check the appropriate box and fill in the blank:

_____ State Department Position: _____
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Position: _____

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Please return to: Mercedes Fitzmaurice
Research for Better Schools
444 North 3rd Street
Philadelphia, Pa. 19123

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COMMISSIONER'S FOREWORD

The New Jersey Department of Education has launched an ambitious program to assist urban schools in their efforts to improve student performance. The Urban Initiative encompasses a number of objectives including those related to principal leadership, student attendance and behavior, student achievement in basic skills, young dropouts, youth employment, educational technology, and graduation rates of compensatory and bilingual education students. These areas present major challenges for our schools.

This Urban Initiative Sourcebook is one of a number of products and services the department is offering in order to help urban districts in their efforts to improve. It presents research findings and exemplary programs related to the Urban Initiative objectives. All of the programs listed are willing to share information and experience with New Jersey schools. Through the use of the Sourcebook, districts will be able to address their concerns by adopting proven practices to their own contexts.

FOREWORD

The purpose of this sourcebook is to provide research and development based information to guide the school districts and schools participating in the Urban Initiative, a major effort for school improvement conducted by the New Jersey State Department of Education. The document is addressed specifically to the administrators and teachers in those urban school districts, and has been distributed to all urban districts in the state.

The first section reviews the research on effective schools and discusses the skills needed by the principal in the areas of instructional leadership, administrative management, and school improvement. The section also contains suggestions for strengthening principal leadership through the removal of barriers to effective leadership, the selection of new principals, and increased professional development of those currently employed.

The second section presents a directory of exemplary practices and programs. Programs and practices are listed and described for 11 content areas: Basic Skills Improvement, Secondary Compensatory and Bilingual Education, Computer Instruction, Disruptive Students, Drug and Alcohol Abuse, Principal Leadership, School Attendance, Secondary Special Education, Student Dropouts, Writing Instruction (K-12), and Youth Employment through Vocational Education. These areas were selected for the sourcebook since they combine the objectives of the concentrated component of the Urban Initiative, called Operation School Renewal, and the nine critical issues that are identified for the initiative's broad-based component. The material in each content area includes: a listing of characteristics of successful practice, a discussion of the relevant literature, and descriptions of several exemplary practices

and programs. Administrators and teachers should find this information useful as they prepare to decide which programs to include in their school improvement efforts.

The third section provides guidance to district staff in the management of school improvement. It synthesizes research-based topics which need to be considered in any effort to bring about systematic change and improvement in schools, including: understanding the change literature, planning implementation, providing leadership for school improvement, selecting implementation strategies, and designing and conducting staff development efforts. This section provides practical examples, models, criteria, and strategies that will be useful initially to urban districts as they revise and implement their improvement plans.

This version of the sourcebook was developed by staff from Research for Better Schools (Mercedes Fitzmaurice, Ellen Newcombe, John Connolly) with guidance from department staff (Arnold Webb, Naida Bagenstos, and Harriet Doss-Willis). It incorporates some new materials specifically developed for use in the Urban Initiative and draws together existing materials from New Jersey, neighboring states, and other states. The original source of all materials is cited in the appropriate sections of the document and listed in the attached bibliography. All program information listed in the sourcebook has been verified by personal or phone interviews.

This sourcebook covers only a small fraction of the currently available research knowledge and describes only a sample of the existing programs that might be appropriate for use in a particular context. Since comprehensive coverage was not the goal, emphasis was placed on including materials which seemed most useful for schools participating in the Urban Initiative.

However, a loose-leaf format was adopted for the document to permit later additions of research syntheses and exemplary programs. The department would appreciate feedback on recommended changes and additions. Please send your comments to Dr. Arnold Webb, Assistant Commissioner of Educational Programs, New Jersey Department of Education, 225 West State Street, CN500, Trenton, New Jersey 08625.

PRINCIPAL LEADERSHIP

I. PRINCIPAL LEADERSHIP

An increasing amount of attention has been focused on the role of the principal and the relationship between principal leadership and school success. Practitioners, researchers, and policy makers agree that an important key to the effective school is the influence of the building principal. While the phrase "effective principal, effective school" certainly oversimplifies the complex set of events that must fall into place for exemplary education to occur, it does capture a sense of the centrality and importance of the principal's role in successful schools. The current interest in principal leadership has emerged from both the effective schools research and studies specifically investigating the behavior of principals. Much of this research has been conducted in urban settings and presents a optimistic message. It concludes that even in schools with significant problems, principal leadership can facilitate significant school improvement and the critical leadership skills can be identified, taught, and learned.

This section of the sourcebook looks at the contribution of recent research to the understanding of principal leadership. It discusses the skills that principals need in the areas of instructional leadership and administrative management, and it also examines strategies for strengthening the leadership role by removing barriers to effective leadership, selecting and placing new principals, and offering professional development.

Research on Effective Schools and the Principal

The recent research on effective schools and principals has made two major contributions: it highlights the importance of principal leadership and identifies the behaviors that separate more and less effective principals.

While some critics question whether the findings of this research can be directly applied to practice, many educators agree that they offer an important message to those who are seeking ways to improve schools. This chapter will look at some of these research findings and their implications for principal leadership.

The effective schools research of the last decade (conducted mainly in urban elementary schools) sought to identify those characteristics which identify successful schools. While each research study has focused on slightly different success factors, many have included the following elements first identified by Edmonds (1979):

- a safe climate conducive to learning; a safe and orderly environment
- high expectations of all students
- a school-wide academic emphasis on basic skills instruction
- systematic monitoring and assessment of student performance
- strong instructional leadership by the principal.

The principal is clearly identified as a key factor in successful schools. He/She needs to provide strong leadership if a school is to accomplish each of these success objectives, and all of these characteristics are directly or indirectly related to principal effectiveness. It is essential that principals be knowledgeable about the findings of the effective schools research so they can provide strong leadership in the application of it. Basically, this means they must have the skills to ensure implementation of research-based curriculum and instruction (i.e., an aligned curriculum, sufficient

opportunity to learn, and direct instruction); adequate support for curriculum and instruction (i.e., a clearly stated mission to improve student achievement, instructional leadership, and structured staff development), and; a positive school academic and social climate (Murphy, Weil, Hallinger, & Mitman, 1985). Although educators must approach the research findings on effective schools with the caution of common sense (e.g., generalizations that come from limited evidence may not always hold up), they can start identifying the patterns of principals' behavior in effective schools and start applying such information to practice.

Guidance on how to improve principal leadership comes not only from the effective schools research but also from a growing body of research which provides information as to how the behavior of more effective principals differs from less effective principals. Some findings are summarized below with their implications for strengthening principal leadership.

- The principal's role has changed drastically over the years. Principals are now expected to act as instructional and administrative leaders (Chase & Kane, 1983; McCurdy, 1983). Since many principals have not been trained in instructional leadership, it is not surprising that many of them feel ill-equipped to carry out both roles; they also have difficulty in finding enough time to fulfill all of their obligations. Principal leadership will be strengthened as principals learn more about instructional leadership and efficient administrative performance.
- Principals' work can be characterized by: a low number of self-initiated tasks; many activities of short duration; discontinuity caused by interruptions; the superseding of prior plans by the needs of others in the organization; face-to-face verbal contacts with one other person; variability of tasks; an extensive network of individuals and groups; a hectic and unpredictable flow of work; numerous unimportant decisions and trivial agendas; few attempts at written communication; interactions predominantly with subordinates, and; a preference for problems and information that are specific (rather than general), concrete, solvable, and currently pressing (Pitner, 1982). Many of these work characteristics are not compatible with strong instructional leadership and efficient administrative management; they must be modified if principal leadership is to be strengthened.

- More and less effective principals tend to exhibit similar work activity patterns; however, effective principals have learned to be proactive within a reactive work environment and to use their many interactions to acquire useful information in the course of solving daily problems. They analyze and process that information to help them accomplish their goals (Manasse, 1985). Strategies need to be taught to principals to become proactive in a work environment where most of an individual's energy is usually expended in reacting to daily crises.
- Several studies have identified competencies which distinguish high performing from average performing principals (using student achievement as the criterion for effectiveness). One study found that six competencies were common to all principals in the study (i.e., commitment to school mission; concern for the image of the school, staff, and students; participatory management style; tactical adaptability; coaching skills; and firmness in enforcing quality standards). Eight others identified the more effective principals (i.e., monitoring, ability to recognize patterns, perceptual objectivity, analytic ability, sense of control, persuasiveness, commitment to quality, and focused involvement exchange). The latter competencies suggest that high performing principals are distinguished from average performers by a strong sense of themselves as leaders, their focused involvement in change, and their highly developed analytic skills (Huff, Lake, & Schaalman, 1982).
- Most of a principal's time is consumed by "organizational maintenance functions" (i.e., administrative tasks) and attending scheduled and unscheduled meetings. Since principals are preoccupied by the most immediate or pressing problems, they spend relatively little time in the classroom. In fact, the principal's time is increasingly consumed by administrative tasks just as public expectations and personal preference would have the principal increasingly concentrate on instructional leadership (Greenfield, 1982; Martin & Willower, 1981; Morris, et al., 1981). Principals must be taught time management strategies and learn to delegate administrative duties if they wish to be more actively involved in instructional leadership.
- Several studies have confirmed the ambiguity of the principal's role. Principals consider such ambiguity and conflicting role demands to be a major source of frustration in their jobs.

They often are uncertain about the kind of leadership behavior that is expected of them. However, effective principals are able to sort through ambiguous demands. They have a conception of how they want their schools to be and have specific goals and strategies designed to achieve them. They know how their own leadership can contribute to these goals (Chase & Kane, 1983; Manasse, 1985). Clarification of expected roles will strengthen leadership.

- Effective principals are able to manage goal-setting processes for their schools successfully and to provide leadership in implementing the goals (Manasse, 1985; Morris, et al., 1981). Goal-setting processes as well as implementation of goals should be a part of principal training.
- Effective principals tie together a loosely structured organization (i.e., the school) through symbolic leadership. They focus the system on key values by paying close attention to the issues on which people agree and use rituals, symbols, and slogans to hold the system together. Such principals spend a lot of time reminding individuals of the central vision, monitoring its application, and teaching others to interpret what they are doing in a common language (Weick, 1982). Symbolic leadership needs to be encouraged and specific strategies taught.
- Effective principals tend to have high energy levels; work long hours; be good listeners, observers, and processors of information about skills; have well-developed expressive and interpersonal skills; and high stress tolerance (Greenfield, 1982). Personal characteristics will always be an important factor in leadership and principal selection processes should evaluate such characteristics carefully.
- There are no conclusive data as to which leadership style is most effective. Success is that dependent on situational factors. What is important is that the principal be aware of his/her dominant leadership style, and have an understanding of the conditions that indicate the use of a secondary style (DeBevoise, 1984; Manasse, 1985).
- Although there is little research evidence that principal effectiveness is influenced by organizational, institutional, or environmental factors, effective principals pay attention to such factors (Manasse, 1985).
- A principal who is effective in one setting may not be effective in another (Manasse, 1985) so it is important that contextual factors be considered when placing an individual in a specific school.

A common theme in both the effective schools research and studies of principal behavior is the importance of strong instructional leadership and efficient administrative management. The next section further discusses these key principal roles.

Table 1

Research Results Related to Principal Leadership

Goals and Production Emphasis. A number of studies have found that principals in high achieving schools tend to emphasize achievement. This involves setting instructional goals, developing performance standards for students, and expressing optimism about the ability of students to meet instructional goals.

Power and Decision Making. The literature on effective schools also has shown that effective principals are more powerful than their colleagues in ineffective schools, especially in the areas of curriculum and instruction, where effective principals are found to be more active and powerful in decisions.

Organization/Coordination. Some studies have suggested that successful schools are better organized than unsuccessful schools, although the data on this issue are vague and sometimes contradictory, particularly when classroom-level data are aggregated. There are some robust findings about school-level organization, however, especially as it relates to principals' behavior. Principals in effective schools, as well as other administrators, apparently devote more time to the coordination and control of instruction and are more skillful at the tasks involved. They do more observations of teachers' work, discuss more work problems with teachers, are more supportive of teachers' efforts to improve (especially by distributing materials or promoting in-service activities), and are more active in setting up teacher and program evaluation procedures than principals in less effective schools.

Other studies suggest that the principal's impact on instructional outcomes may be less related to his or her own behavior than to the instructional program and the degree to which it is structured and coordinated at the school level (an idea discussed in greater depth in the following sections).

Human Relations. Highly effective schools also appear to differ from less effective schools in terms of the quality of human relations, and principals appear important to this difference. Effective principals apparently recognize the unique styles and needs of teachers and help teachers achieve their own performance goals, a process that may fulfill teachers' higher order needs. They also encourage and acknowledge good work.

(Bossert, Dwyer, Rowan, & Lee, 1982)

facilitator of educational change and the energy behind educational improvement at the school level. Frequently, in executing their responsibilities as instructional leaders, principals find it necessary to encourage significant changes. They will be most successful when they are fully knowledgeable about educational change (see Section II) and when they have mastered the skills or behaviors which enable them to initiate and sustain improvement efforts.

Increasingly, researchers are studying the principal's role in facilitating change. School improvement research (i.e., educational change) has documented the ability of principals to influence change. Such influence is communicated through the principal's high expectations or "press" for improvement. Principals successful in significant change are more likely to function in a facilitative, coordinative role rather than a directive role (Clark, Lotto, Astuo, 1984). Research is also beginning to provide suggestions on how these principal behaviors related to educational change might be taught (Leithwood, Stanley, & Montgomery, 1984).

The real key to instructional leadership is for a principal to be knowledgeable about the principles of effective teaching and learning and to have the necessary "people" and management skills to see that they are implemented. This means that the principal must be generally knowledgeable about the elements of good instruction and curriculum, able to supervise and motivate teachers, facilitate educational change, and make certain that administrative concerns of the school fully support the instructional program. Instructional leadership does not occur in isolation from the other aspects of a principal's job. Nor do principals exercise instructional leadership in a vacuum. They need the support of teachers, students, administrators, and the community (DeBevoise, 1984).

The Principal as an Administrative Manager

Research seems to indicate, not surprisingly, that those principals who are effective instructional leaders also are good administrative managers (Cotton & Savard, 1980). Studies show that effective principals consistently use their administrative skills to support the instructional goals of the schools (rather than perform administrative tasks in isolation of such goals). Apparently, effective principals have learned to carry out administrative tasks with the kind of efficiency which also allows them enough time for instructional leadership.

In attempting to understand the administrative functions of the principal's role, it is useful to analyze both the administrative or management responsibilities that are part of the principal's job and the managerial behaviors that are displayed by effective principals. It is difficult to detail all the administrative tasks that might be undertaken by a principal since they obviously vary from situation to situation. Redfern (1980) has provided a fairly comprehensive list grouped into the following categories: organization and administration, communications management, personnel management, management of students, management of services, management of facilities, and financial/business management. The complete list is included in Table 2. It is clear that a broad range of skills is needed to carry out all of these tasks and that it would be difficult for any one person to be proficient in all of them.

The optimal managerial behaviors of effective principals have been less studied (in recent years) than those of instructional leadership, and thus, detailed guidance for improvement in this area is limited, with some notable exceptions. Many general managerial behaviors have been identified by different researchers as desirable, e.g., the creation of order and

Organization and Administration

Observance of district responsibilities
Handling of confidential information
Use of research findings
Engaging in short and long-term planning
Delegation of responsibility and authority to subordinates
Record-keeping practices
Accuracy and timeliness of reports
Decision-making techniques
Holding one's self accountable for performance
Facilitating change
Skill in organization
Knowledgeability in leadership theory
Leadership practices
Skill in development of subordinates

Communications Management

Interpretation of district policies and programs
Awareness of concerns and views of the community
Responsiveness to inquiries and questions from constituents
Keeping colleagues aware of developments in areas of responsibility
Maintaining open, two-way communication
Promoting climate for staff interaction
Communication skills
Regard for others
Participation in district public relations program

Management of Services

Food services program
Custodial services
Health care services
Maintenance services
Care of school property
Student transportation
Safety practices

Financial/Business Management

Collection of moneys, maintenance of financial records
Participation in formulation of district budget
Making realistic estimates of financial needs
Adherence to established guidelines governing expenditures of funds for goods and services
Observance of cost-effectiveness in budget management

Personnel Management

Participation in employment of personnel
Contributions to employee inservice programs
Evaluation of personnel for whom responsible
Recommendations for additions, promotions, demotions, retentions, transfers, and terminations of personnel
Participation in employee relations activities
Motivating subordinates
Stimulating high morale
Orientation of new employees
Availability to staff members
Sensitivity to needs of staff members
Participation in team management

Management of Students

Promotion of health, safety, and welfare of students
Administration of attendance
Handling of student behavior problems
Management of student records
Observance of rights and responsibilities of students
Utilization of services of pupil personnel specialists
Drawing upon resources of community social services
Administration of district discipline policies and procedures
Handling of suspensions and expulsions
Supervision of extracurricular activities

Management of Facilities

Keeping up-to-date inventories
Recommending repairs and replacements of equipment
Identification of new item needs
Adherence to district policies regarding use of school facilities
Contributions to upkeep of buildings and grounds
Care of physical facilities and school property

Professional Competencies and Improvement

Sensitivity to need to grow professionally
Up-to-dateness in area(s) of specialization
Participation in additional graduate training
Participation in development activities
Contributions to district-wide inservice training activities
Allocation of time to professional development

(Redfern, 1980)

discipline; marshalling of resources; management of time; and evaluation of results (Persell, 1982) or, desirable behaviors can be developing goals, policies, and directions; organizing the school and designing programs to accomplish goals; monitoring progress, solving problems, and maintaining order; procuring, managing, and allocating resources; creating a climate for personal and professional growth and development; and representing the school to the district office and the outside community (Yukl, 1982). However, more specific behaviors emphasize heavily (but not exclusively) specific aspects or factors of managerial skill. For example, Yukl (1982) deems important the appropriate use of human resources, and the Florida State Department of Education (McCurdy, 1983) highlights cognitive abilities. The choice of effective behaviors seems dependent (and thus limited by) the theoretical model of principal leadership selected by the researcher (Yukl, 1982).

A comprehensive analysis of the essential skills for administrative management seems to be in the future. In the meantime, practical steps to analysis of administrative management might be taken by careful selection of existing models such as Yukl's (1982) Multiple Linkage Model of principal leadership, which defines successful leadership as the extent to which a leader is able to organize the activities of subordinates to best use available personnel, equipment, facilities, and resources. It seeks a balance of short-term actions which restore school equilibrium and long-term innovations. Another possibility is to borrow management skills proven in the business world and adapt them to the school situation, since many experts note the commonalities of business and school management. Others describe important differences in the two types of organizations that require different management skills. For example, Weick (1976) describes schools as loosely-coupled organizations that are inherently more difficult to administer than businesses.

Strengthening Leadership Performance

The leadership performance of principals can be strengthened in several ways. Principals need to recognize the barriers (and help in removing them) that keep them from being more effective. School administrators need to be aware of processes that will help them select the best candidates for principals and place them where they can be successful. They need to use feedback gained from the evaluation of principals to encourage leadership potential, and they need to offer staff development activities that develop and reinforce leadership.

Barriers to Effective Leadership

As noted previously, most principals would like to make instructional leadership a priority but few are really able to do so (Greenfield, 1982; Morris, et al., 1981). While many principals face similar obstacles to successful leadership, effective principals do not see such difficulties as formidable -- they believe they can influence their situations and some principals perceive more barriers than are actually present (Sarason, 1982). The system may, in fact, tolerate more discretionary decision-making than some principals believe it will. Effective principals test limits and bend rules. They interpret rules to enhance, rather than to reduce their effectiveness. At times this means that going through channels is insufficient. They act creatively to accomplish such things as negotiating a textbook exchange with a fellow principal, or searching out extra curriculum guides in a district office (Morris, et al., 1981).

Two suggestions in the research for removing barriers to effective leadership are:

- establishing clear expectations for the principal's leadership role through a statement of goals and accurate job descriptions (Chase & Kane, 1983)

- helping principals to clarify priorities and manage their time better. Delegation of both administrative and instructional leadership tasks will help the principal find time for priorities (Chase & Kane, 1983).

The Selection and Placement of Principals

The careful selection of candidates with the best available leadership potential is an important technique for strengthening principal leadership. Studies show that this type of selection is the exception rather than the rule (Baltzell & Dentler, 1983). Most principals are selected through forms of "intramural patronage," where selection criteria are vague and the "image" or "fit" of the principal (often because he or she is a known quantity) are the determining criteria. Districts need well-developed selection criteria and search processes for selection of new principals.

The research literature suggests the following points about the selection process.

- Although in practice the commonly used selection process departs from the ideal, it is still important because it has significant symbolic value by contributing to a principal's sense of mission and what the district stands for (Manasse, 1985).
- School districts often neglect the opportunity available during the selection process to make a public statement of what they stand for. If a school district defines principal effectiveness in terms of instructional leadership, then they need to articulate the criteria that reflect their expectations and back them up with behavioral measures (Manasse, 1985).
- Successful selection systems have the following common elements
 - an open system in which anyone who meets clearly stated criteria may apply and in which all qualified candidates have an equal chance at appointment
 - the basis of selection is preparation in terms of experience and competencies
 - selection procedures are rigorous
 - the tests of the processes are important outcomes in terms of superior candidates.

Many school districts are working to make the follow improvements in their selection processes (Baltzell & Dentler, 1983):

- broader control of the selection process among top-level administrators
- clearer selection criteria
- a better applicant pool
- wider use of screening committees
- less dependence on personal judgments in selection decisions
- increased attention to sex and ethnic equity.

Two methods being increasingly used in the selection of principals are principal internships and assessment centers. In an internship, a potential principal, who is already certified, receives a year of on-the-job training without a permanent assignment and administrators have the opportunity to observe how they perform. Interns, after training, can apply for regular openings. At an assessment center, principal candidates participate in a series of simulations and exercises which assess the range of behaviors needed on the job. The assessment can take from one to five days. Final performance ratings that specify strengths and needs for improvement are given to each candidate.

Due to the influence of situational and environmental characteristics on leadership behavior, districts would be wise to increase the attention given to placing principals in schools that best match the strengths and styles of the individuals involved. Routine rotation of principals is in many cases not a positive strategy (Manasse, 1985).

The Evaluation of Principals

The evaluation of principals will strengthen principal performance by specifying desired behaviors and providing feedback to principals on these behaviors. Principal evaluation systems should be based on clearly

articulated criteria and processes agreed to by both principals and supervisors (Manasse, 1985; Redfern, 1980) and should reinforce the job description of the principal as instructional leader (Chase & Lake, 1983).

The professional literature on principal evaluation presents the following conclusions.

- In practice, administrator evaluation processes that meet standards recommended by administrator organizations and authorities are used in only 25 percent of the nation's schools. The majority use "checklist ratings" which are not linked to job descriptions or preplanning (McCurdy, 1983).
- Principal evaluation should include assessment of both general leadership functions and specific work assigned to the principal. It should address general and specific actions related to achieving an effective school program as well as specific improvements the principal needs to make (Redfern, 1980).
- A major purpose in evaluating a principal should be to provide assistance in establishing long and short-term goals and in establishing priorities for critical tasks. Such focus on goals will lead to day-by-day operational efficiency (Redfern, 1980).
- Since principals achieve educational goals through working with others, a main benefit of evaluation is that it helps to clarify such relationships. Evaluation also helps principals to understand how others see them (Redfern, 1980).
- One typical performance objectives approach to evaluation consists of the following steps (Redfern, 1980):
 - General job responsibilities or definitions are listed in numbered categories, with job descriptors or duties under each category.
 - Those evaluated analyze their current strengths and weaknesses in relation to the job responsibilities and descriptors, and with evaluators cooperatively determine how to improve their overall performance.
 - This inventory of strengths and weaknesses becomes the basis for devising performance objectives for the principals to be evaluated. Desired outcomes should be set forth in terms of results that are measurable, rather than subject to opinions or guesswork. [Note: Some of the objectives will need to be tied to districtwide objectives; some will be school oriented; some might be personal/professional.]

- Plans of action for carrying out the performance objectives are then drawn up. They focus on the specific actions to be taken. Principals and administrators must agree on the ways they will work together in implementing the plans.
- Results of the action plans are assessed based on the information collected, observations, and any other monitoring data gathered during the process. Assessment should include self-evaluations, those of the evaluators, and possibly those of outside or secondary evaluators. Assessment of results should occur at least twice a year: once about midpoint in the period set for evaluation, and again at the end of the period.
- Follow-up conferences should occur at midpoint and at the conclusion of the evaluation period after written assessments are made. The conferences after the final evaluation present an occasion to review implications of the assessments and begin preliminary planning for the next evaluation cycle, which will start with step one.
- Evaluation should be regarded as a diagnostic process which helps target objectives. However, it cannot accomplish every purpose the school system seeks to achieve. While a variety of goals by evaluation can be accomplished over time, initial objectives should be limited in number and scope (McCurdy, 1983).
- There is a substantial need for training (often underestimated) when implementing an administrator evaluation system (McCurdy, 1983).

Evaluation can markedly improve principal leadership when used correctly. However, several obstacles need to be overcome. Evaluation is resisted when criteria are subjective and when evaluators are untrained or inept. If it does not have top-level commitment, it is likely to fail. The challenge is to develop a fair system that has as its goal the improvement of performance and is supported by principals as a means of getting their job done better.

The Professional Development of Principals

The professional development of principals as effective leaders is probably the most neglected aspect of school improvement efforts (Wynant, 1981). This is true despite the increasing need for such training due to the current emphasis on the instructional leadership role of the principal and the

increasingly complex tasks involved in administration of schools. Frequently a principal's preservice training bears little correspondence to his current job assignment. Although educators in many districts have worked to improve inservice training for teachers, similar efforts for the improvement of administrators are still limited. Quick fix, short-term sessions dealing with "hot" topics are still the rule in administrator training and they are not likely to provide the kind of comprehensive staff development activities that will lead to changes in the behavior of principals.

The research on administrator training makes the following suggestions about good staff development.

- Administrator training needs to consist of several key elements including: support from the superintendent and board of education, a content designed by intended participants, continuous and comprehensive training, opportunity for participants to practice new skills or behaviors and undergo evaluation and feedback without risk, and rewards offered for using what was learned (Olivero, 1982).
- Training should tap the knowledge of adult learning theory (McCurdy, 1983).
- A range of training formats might be used for principal training including: traditional higher education courses; short-term institutes, seminars, or workshops; competency-based training; academies; and the linking of individuals through a networking process to other individuals, institutions, or agencies to share concerns and effective practices (McCurdy, 1983).
- Suggested content for principal training might consist of the following (Cawelti, 1982):
 1. Training in leader behavior, such as style flexibility, alternative models of leader behavior, and what these mean for practitioners.
 2. Training focused on management skills, including:
 - planning, forecasting, establishing goals, management by objectives, budgeting, and policy making
 - organizing by the grouping of activities or functions necessary to accomplish goals
 - directing through coordinating, troubleshooting, and motivating employees

- controlling by establishing standards, measuring performances against these standards, and allocating resources to this end.
3. Training in instructional leadership, including:
- curriculum development through assessing needs, selecting goals and objectives, selecting and organizing content and learning activities, and evaluating curriculum
 - clinical supervision through pre-observation conferences, observation, and data collection on teacher performance; data analysis and conference preparation; follow-up conferences; and post-conference analyses
 - staff development in helping principals realize the potential in teacher in-service training, sources for such training, principles of training activities, and ways to provide opportunities to teachers
 - teacher evaluation focused on effective teaching factors.
4. Traditional administrative training topics such as collective bargaining, public relations, and educational technology.

Although administrator training needs significant improvement, some promising efforts are underway, several of which are described in the directory portion of this sourcebook.

DIRECTORY OF EXEMPLARY PRACTICES
AND PROGRAMS

II. DIRECTORY OF EXEMPLARY PRACTICES AND PROGRAMS

This section contains information about exemplary practices or programs in 11 areas: Basic Skills Improvement, Compensatory and Bilingual Education - Secondary (High School Graduation Requirements), Computer Instruction, Disruptive Students, Drug/Alcohol Abuse, Principal Leadership, School Attendance, Special Education - Secondary, Student Dropouts, Writing Instruction - K-12, and Youth Employment - Vocational Education. In each area there is a list of characteristics of successful educational practices, a brief summary of relevant professional and research literature, and several descriptions of promising practices and programs. The descriptions were selected to be representative, rather than a comprehensive coverage of all available practices/programs. While in many cases the practices/programs have been thoroughly evaluated for effectiveness, in others evaluation is less rigorous. Some practices/programs are included not because of their verification of effectiveness, but because they exhibit the characteristics of successful practice. Further information about them may be obtained by contacting the person or school district using the practice/program or by consulting the reference from which the description was taken.

BASIC SKILLS IMPROVEMENT

Basic Skills Improvement-Reading and Mathematics

There are three levels or groups of characteristics of effective programs in basic skills. The first is general and relates primarily to program policy; the second is also general and is derived from recent research on effective instruction; and the third is somewhat more specific and is derived from research and practice in the two content areas.

Characteristics of Successful Programs

- The district has clear program policies so that the goals, content, and status of the program is commonly understood, and nearly all of the teachers and administrators asked to participate do so regularly and to the best of their ability.
- The district coordinates school programs with local and state priorities to ensure that (for each content area) there is a set of program goals, a scope and sequence (K-12) of objectives aligned to appropriate curriculum materials, instructional activities, and assessment measures and methods. The written board-approved K-12 curriculum includes all state-mandated programs and services.
- Each school implements the district core curriculum, ensuring that all students have an equal opportunity to learn and that appropriate assistance is provided when needs are identified.
- Administrators (at the district and school levels) provide support by:
 - demonstrating commitment and belief in the value of the program and by demonstrating interest in and recognizing teachers' success;
 - "pressing" for a given level of use of the program and monitoring implementation;
 - coordinating communication and activities among administrators, teachers, aides, and parents for program review and improvement;
 - providing resources, conducting/sponsoring training, and responding to requests for assistance; and
 - implementing data-based decision making.
- Program management (leadership, advocacy, decision making) is shared (not reliant on a single administrator but allowing for teacher participation).
- Program effectiveness (including student and program achievement) is assessed and data used in decision making.

- For independent practice in academic work teachers aim for at least 90 percent success rate (i.e., a student does not "practice mistakes" for homework, but may have a few careless errors).
- In all activities, each student experiences high success on more than half his/her assignments (which may mean that grouping policies, curriculum coverage, class scheduling, etc. may be adapted).

In order to take into account students' individual differences, the following occurs:

- Educators understand that students are more likely to learn more if teachers are aware of "prior learning" (what has been taught and how much students have mastered), and vary instructional methods to allow for different learning styles and areas of need.
- Prior learning is addressed by having an articulated curriculum for key subjects so that teachers know what should be covered at each grade.
- Prior learning is addressed by having an staff sharing "progress reports" of curriculum covered and student achievement.
- Staff know their own dominant thinking and learning styles and the implications these have for teaching.
- Teachers purposefully use varied methods of instruction and student practice (e.g., with differing degrees of structure, involvement of others, use of aural or visual senses).
- The instructional program shows recognition of individual talents, interests, needs, and exceptional abilities of students.

In order to maintain or improve the general quality of instruction, the following occurs:

- Educators understand that attention to the key variables of time, success, curriculum alignment, and student characteristics provides the basis for classroom effectiveness, to which may be added techniques or activities to improve the overall quality of instruction.
- Educators understand that quality of instruction includes such things as:
 - classroom expectations, rules, and procedures
 - praise and criticism as controlled feedback
 - diagnostic-prescriptive instruction
 - homework, etc.
 - all reflecting a school wide philosophy supported by principal leadership.

Characteristics of Effective Instruction

In order to maintain or improve time-on-task, the following occurs:

- Educators understand the impact of use of time on student achievement, e.g., differences in allocated time suggest that some students may have more than twice the time to learn a specific content than do other students; the usual engagement rate (time focused on the instructional activity) is 60 percent to 70 percent of the allocated time; and engaged time--in which a student is actively engaged in the learning task (specified by the curriculum)--varies from 50 percent to 90 percent.
- Sufficient time is allocated to cover curriculum content, with emphasis on academic instruction.
- Teachers are aware of their own use of class time, and of strategies to reduce time lost through management/transition, student socializing or inattention, and discipline.

In order to maintain or improve curriculum alignment, the following occurs:

- Educators understand that curriculum alignment means a direct match among three things: curriculum objectives, instructional activities, and assessment (tests used to measure student achievement).
- For important competencies or objectives to be mastered, there is a (commonly understood) scope and sequence of objectives matched to appropriate tests and to instruction or curriculum materials, (for instance, by implementation of Mastery Learning).
- Administrators support curriculum alignment efforts, e.g., by providing analyses of student data keyed to objectives, or by encouraging teachers to focus on instructional activities that directly address important learning objectives.
- Teachers address important learning objectives by using appropriate instructional activities, and adjusting instruction according to needs identified by the analysis of test data.

In order to facilitate a high success rate, the following occurs:

- Educators understand that, success rate refers to the number of correct responses given by a student and that in general, a high success rate correlates with academic achievement.
- For oral questioning, teachers aim for 75 percent success rate (i.e., a given student would respond correctly three times out of four, which may mean that the teacher varies difficulty and how she calls on students to allow for individual differences).

- Each principal facilitates quality instruction by:
 - Setting standards
 - involving staff in instructional decision making
 - obtaining staff commitment to a school-wide philosophy or program
 - supervising teachers with attention to activities known to improve student achievement.
- Together school staff establish expectations and common practices, such as:
 - student responsibility
 - expectations and recognition of student success
 - assignment of homework, etc.
- Each teacher:
 - gets the school year off to a good start by establishing clear workable rules, procedures, and expectations
 - practice diagnostic-prescriptive instruction for academic lessons
 - uses praise and criticism in moderation (as controlled feedback)
 - assigns homework (after reasonable success rate)
 - provides instruction in effective work and study skills.

In compliance with state mandates and part of a self-monitoring process, the following occurs:

- Seventy-five percent of the pupils tested in grade nine in each school have passed the state's 9th grade Minimum Basic Skills Test (score of 65 in math, 75 in reading).
- Seventy-five percent of the pupils in grades three and six in each school equal or exceed state-prescribed percentile scores in both reading and math on standardized commercial tests, or state-prescribed scores on department-approved local criterion reference tests.
- A basic skills improvement plan has been developed for each school in the district that did not have seventy-five percent of the ninth grade pupils meeting the state standards of 65 in math and 75 in reading on the basic skills tests.
- A basic skills improvement plan has been developed for each school in the district that did not have seventy-five percent of the pupils in

grade three and seventy-five percent of the pupils in grade six exceed state-prescribed percentile scores in both reading and math on standardized commercial tests, or state-prescribed scores on department-approved local criterion reference tests.

Characteristics of Effective Reading and Mathematics Programs

Reading.

- Reading programs would include student goals, such as:
 - use a variety of reading materials
 - use a work recognition system (including relevant clues such as picture, context, structure, phonics)
 - comprehend various reading materials
 - meet the reading demands for functioning in society (e.g., following directions, locating references, gaining information, understanding forms)
 - select reading as a personal activity.
- Reading is interrelated with other basic skills areas.
- A literature or reading for enjoyment component is a part of the program.
- Varied approaches are used, with emphasis on diagnostic-prescriptive instruction.
- Students spend at least 30 to 45 minutes a day on reading.
- All students participate in a library skills program.

Mathematics.

- Mathematics programs should include student goals such as:
 - recognize and recall mathematical facts, definitions, and symbols
 - perform mathematical manipulations
 - understand mathematical concepts and processes
 - use mathematics problem solving skills
 - use mathematical reasoning and processing to meet personal and societal need
 - maintain well-organized and carefully structured lessons

- use a process of review, guided practice, and independent practice, assuring mastery of prerequisite skills before introducing new concepts
- allow students to learn through concrete experience before introducing abstract concepts.

Review of the Literature

Almost all of the information circulating about effective teaching is based on results of studies conducted in basic skills classes. This research examined the process of teaching/learning in relationship to the product of student achievement. Factors found to correlate most strongly with improved student achievement and positive attitudes fall into the following categories: use of instructional time (e.g., Berliner, 1978), curriculum alignment (e.g., Brady et al., 1977), success rate (e.g., Fisher et al., 1978; Crawford, 1978), student characteristics (e.g., Cooley & Leinhardt, 1980; Letteri, 1980), and the quality of instruction (e.g., Emmer et al., 1980; Brophy & Evertson, 1976). Research findings in these categories are presented in the lists of "characteristics" (above). That research has been linked with studies of curriculum and school improvement, and used to develop instructional models which have proven very effective in improving student achievement. Some of these models are outlined in the following pages.

Descriptions of Exemplary Practices and Programs

Two types of descriptions follow: (1) those which explain general models of basic skills instruction and (2) those which summarize basic skills programs in reading and mathematics instruction.

General Models of Basic Skills Instruction

Title: Achievement Directed Leadership (ADL)

Description: Achievement Directed Leadership (ADL) was developed by David Helms and staff at Research for Better Schools (RBS). Two variables found to be strongly related to effectiveness of instruction and student achievement were identified: "content" and "time." The "content" variable encompasses the following two factors:

1. Assessment of prior learning.
2. Alignment of curriculum objectives and classroom instruction to the testing instrument.

The "time" variable improvement cycle involves the following factors.

1. Measuring student engaged time (SET) via classroom observation.
2. Comparing SET and opportunity for improvement.
3. Reviewing and selecting research-based improvement strategies.
4. Implementing the selected strategies.
5. Using additional classroom observations to evaluate the effectiveness of the strategies in improving SET.

Administrators and teachers learn specific processes and strategies to make improvements in classroom management and instructional planning.

Contact: David Helms
Research for Better Schools, Inc.
444 North Third Street
Philadelphia, Pennsylvania 19123
215-574-9300

Reference: Helms & Graeber, 1985

Title: Active Teaching (AT)

Description: Active Teaching (AT) is a system of instruction developed by Thomas Good and Douglas Grouws at the University of Missouri. Originally designed for the teaching of mathematics, AT consists of the following components:

1. Pre-lesson Development -- concepts and skills from the previous night's homework are reviewed, homework is checked and collected, and students engage in mental exercises.
2. Lesson Development -- prerequisite skills and concepts are briefly reviewed, and new concepts are introduced via teacher explanation and demonstration.
3. Controlled Practice.
4. Independent, Uninterrupted, Individual, Successful Practice -- is provided in order to increase proficiency in the skills and concepts taught.
5. Homework -- the homework that is assigned is related to the concepts developed that day.
6. Review/maintenance -- weekly and end-of-unit reviews help to maintain the skills and concepts that have been taught.

In-service training is available.

Contact: Thomas Good
Center for Research in Social Behavior
111 Stewart Road
University of Missouri
Columbia, Missouri 65201
314-882-7888

Reference: Good & Grouws, 1983

Title: Direct Instruction

Description: This model, developed by Barak Rosenshine, is derived from a synthesis of the literature on effective teaching. The developer recommends its use for structured academic activities.

1. Checking Previous Day's Work and Reteaching (if necessary)
 - a. check homework
 - b. reteach areas where there were student errors
2. Presenting New Content/Skills
 - a. provide overview
 - b. proceed in small steps, (if necessary), but at a rapid pace, give detailed or redundant instructions and explanations
 - c. phase new skills in while old skills are being mastered
3. Initial Student Practice
 - a. use a high frequency of questions and overt student practice (from teacher and materials)
 - b. provide prompts during initial learning (when appropriate)
 - c. give all students a chance to respond and receive feedback
 - d. check for understanding by evaluating student responses
 - e. continue practice until students are firm
 - f. work for a success rate of 80 percent or higher during initial learning
4. Feedback and Correctives (and recycling of instruction, if necessary)
 - a. provide feedback to students, particularly when they are correct but hesitant
 - b. use student errors as feedback to the teacher for needed corrections and/or reteaching
 - c. provide corrections by simplifying question, giving clues, explaining, or reviewing steps, or reteaching last steps
 - d. reteach when necessary, using smaller steps
5. Independent Practice So That Students Are Firm and Automatic
 - a. use seatwork
 - b. use unitization and automaticity (practice to overlearning)
 - c. need for procedure to insure student engagement during seatwork (i.e., teacher or aide monitoring)
 - d. 95 percent correct or higher
6. Weekly and Monthly Reviews
 - a. reteach, if necessary

Note: With older, more mature learners, then, (a) the size of step in the presentation is larger, (b) student practice is more covert, and (c) the practice involves covert rehearsal, restating, and reviewing.

Contact: Barak Rosenshine
220 Education Building
1310 South 6th Street
Champaign, Illinois 61820
201-328-1414

Reference: National Foundation for Educational Research, 1971

Title: Effective Instruction

Description: This is usually called the Madeline Hunter model since it was developed at the demonstration school at the University of California where Dr. Hunter was a principal.

1. Develop an Anticipatory Set
 - a. focus the students' attention
 - b. provide a brief practice on previously achieved and related learnings and/or
 - c. develop a readiness for the instruction that will follow
2. Statement of the Objectives
 - a. perform a task analysis
 - (1) independent sequence
 - (2) dependent sequence
3. Instructional Input - Behaviors/Strategies
 - a. lecture
 - b. discovery
 - c. demonstration
 - d. film, etc.
4. Modeling Accepted Product/Process
 - a. visual and verbal modeling
 - (1) give an example of the acceptable outcome
5. Check for Understanding
 - a. sampling
 - b. signaled response
 - c. individual response
6. Guided Practice
 - a. assign several examples and observe each student
 - b. provide corrective feedback
7. Independent Practice
 - a. assign enough problems to check for understanding
 - b. circulate the room in order to correct errors
8. Distributive Practice Over Time
 - a. maintenance of skills

Contact: Dr. Madeline Hunter
Moore Hall
UCLA
Los Angeles, California 90024
213-825-0781

Reference: Hunter, 1971

Title: Effective Lesson Planning

Description: This model was developed by Jane Stallings and is based on her research in reading and language arts classes.

1. Organizing/Management Activities (15 percent or less)
 - a. take roll (E)
 - b. make announcements (E)
 - c. pass materials (E)
 - d. make expectations clear for the period:
quality and quantity of work (E)
 - e. clarify and enforce behavior expectations (E)
2. Interactive On-Task Activities (50 percent or more)
 - a. review/discuss previous work (E)
 - b. inform/instruct new concept (E)
demonstrate/give examples
link to prior knowledge
 - c. question/check for understanding (E)
 - d. reteach small group (if necessary) (S)
 - e. oral drill and practice (S)
 - f. summarize (E)
3. Teacher Monitoring/Guided Seatwork (35 percent or less)
 - a. written work (I)
 - b. silent reading (I)
 - c. teacher monitoring/guided seatwork (I)

Key

E = Total Class
S = Small Group
L = Large Group
I = Individual

Contact: Dr. Jane Stallings
George Peabody College
Vanderbilt University
Nashville, Tennessee 37203
615-322-7311 (Vanderbilt University)
615-322-8448 (Dr. Stallings)

Reference: Stallings, 1980

Title: Mastery Learning (ML)

Description: Mastery Learning (ML), developed by Benjamin Bloom (University of Chicago) and James Block (University of California), combines curriculum alignment and diagnostic/prescriptive instruction with a philosophy that all students can succeed. The essential components of ML follow.

1. Developing a scope and sequence of objectives broken down into prerequisite and component skills.
2. Providing appropriate instruction aligned with the objectives to be mastered.
3. Testing the students' progress in mastering the objectives through the use of a formative evaluation measure ("no fault" test).
4. Providing students who have not achieved mastery with additional corrective work in the deficient areas specified by the formative tests, and providing students who have achieved mastery with enrichment activities to reinforce and supplement learning.
5. Testing final mastery of the objectives with a summative evaluation measure.
6. Recording student progress in terms of individual mastery of specific objectives. "Mastery" is usually defined as 80 percent of the students demonstrating success on at least 80 percent of the objectives in a given unit of instruction.

Contact: James Block
University of California
Santa Barbara, California 93106
805-961-3301
805-966-3050

Reference: Block, 1971

Title: Student Team Learning (STL)

Description: Student Team Learning (STL) techniques use cooperative learning among heterogenous groups of small teams to facilitate student learning. Student Team-Achievement Divisions (STAD) and Teams-Games-Tournaments (TGT) were developed by Robert Slavin, David DeVries, and Keith Edwards at Johns Hopkins University. Jigsaw was stated by Eliot Aaronson who is at the University of California at Santa Cruz. The key factors of STL are peer interaction, cooperation, and competition. STAD is basically team learning. TGT is team learning plus competition by ability level; Jigsaw has students become experts by learning specific elements of a program and then regroup for peer teaching across those elements; TAI is team assisted individualization in mathematics, with attention to combine cooperative learning and individualized instruction.

Contact: Robert Slavin
Center for Social Organization of Schools
Johns Hopkins University
Baltimore, Maryland 21218
301-338-8249

Reference: Slavin, 1978

Programs for Mathematics Instruction

Title: Calculator Assisted Mathematics for Everyday Living (CAMEL)

Description: CAMEL is an individualized two-year program for those 9th and 10th grade students who have had little or no success in mathematics. CAMEL is based on the premise that these students can and will learn these concepts if the amount of computation is reduced. Students in a CAMEL classroom use calculators to perform the computation necessary to learn and apply these concepts. The program includes eight computation modules that the student must work using paper and pencil if they cannot demonstrate mastery of the skill on a pretest. Paper and pencil computation should take less than 20 percent of the students' time. While CAMEL was developed for use in a regular classroom and is primarily used there, the individualized nature of CAMEL makes it appropriate for any group that is highly transient and not well-motivated. In the developing district CAMEL is also used in the Juvenile Detention Center, the Alternative School for Disruptive Students, The Center for Emotionally Handicapped or Learning Disabled Student, and The Half-Way House for Young Adults.

The CAMEL program can be implemented by any math teacher. A one-day training session is desirable but not necessary. No special facilities are needed. Each student in the program should have access to a calculator. A management system to help the teacher is also part of the program. CAMEL Resource Staff Project consultants provide technical assistance and training in program implementation. Visitors are welcome to a visit a demonstration school.

Contact: Whiteford G. Colee
Project CAMEL
P.O. Box 1910
Daytona Beach, Florida 32015-1910
904-255-6475

Reference: Educational Programs That Work, 1984

Title: Comprehensive School Mathematics Program (CSMP)

Description: CSMP, a complete elementary-level mathematics curriculum from basics to problem solving for students of all ability levels, has the underlying assumption that children can learn and can enjoy learning math much more than they do now. Unlike most modern programs, the content is presented not as an artificial structure external to the experience of children, but rather as an extension of experiences children have encountered in their development, both at the real-life and fantasy levels. Using a "pedagogy of situations," children are led through sequences of problem-solving experiences presented in game-like and story settings. It is CSMP's strong conviction that mathematics is a unified whole and should be learned as such. Consequently, the content is completely sequenced in spiral form so that each student is brought in contact with each area of content continuously throughout the program while building interlocking experiences of increasing sophistication as the situations become more challenging.

A feature unique to CSMP is the use of three non-verbal languages that give children immediate access to mathematical ideas and methods necessary not only for solving problems, but also for continually expanding their understanding of the mathematical concepts themselves. Through these languages the curriculum acts as a vehicle that engages children immediately and naturally with the content of mathematics and its applications without cumbersome linguistic prerequisites. These languages include: the Language of Strings (brightly colored strings and dots that deal with the fundamentally useful and important mathematical notion of sets); the Language of Arrows (colored arrows between pairs of dots that stimulate thinking about relationships between objects); and the Language of Papy Minicomputer. The Minicomputer, a simple abacus that models the positional structure of the numeration system, is used both as a computing device and as a motivation for mental arithmetic. Its language can be used to represent all decimal numbers, positive or negative, and encourages creative thinking about the nature and properties of numbers. CSMP is flexible enough to facilitate whole-group, small-group, and personalized instruction, and is appropriate for all children from the "gifted" to the "slow learners." It recognizes the importance of affective as well as cognitive concerns and has been developed and extensively tested in classrooms nationally.

A school system signs a cooperative agreement with CSMP and appoints a local coordinator who undergoes three to ten days of training (depending on highest grade level adopted) during spring or summer prior to first year of implementation. The coordinator trains all teachers new to CSMP before start of school. The smallest adoption unit is one teacher in one classroom. Teachers and coordinators are required to buy training kits: K-3, \$10; 4-6, \$10. Awareness materials are available at no cost. Visitors are welcome any time by appointment at project site and additional demonstration sites in home state and out-of-state. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated). Training is conducted at project site (adopter pays only its own costs) in June and July (several workshops for particular audiences). Implementation and follow-up services are available to adopters (costs to be negotiated).

Contact: Jim Winter, Director
CSMP Developer/Demonstrator Project
470 N. Kirkwood Road
St. Louis, Missouri 63122-1799
314-821-1700, ext. 23

Reference: Educational Programs That Work, 1984

Title: Conceptually Oriented Mathematics Program (COMP)

Description: The Conceptually Oriented Mathematics Program is a management system that provides a list of sequential skills to be mastered in mathematics. It is designed to meet individual needs of students (grades 1-12) through small-group instruction. Students are tested to determine their individual strengths and weaknesses and are grouped accordingly. The program provides continuous progress through the use of materials organized into 25 instructional levels. Eight broad areas are developed for mastery in these 25 levels. Each level has been broken into two or more steps. (Step 2 in each level provides additional materials for the highly motivated student).

The program utilizes cooperative planning and teaching. The ideal instructional situation is one in which each teacher has no more than two instructional groups. It is the intent of the program to encourage teachers to be creative in their teaching and to adapt the program to the learning styles of their students.

One day of training prior to implementation is required. All teachers and administrators involved in adoption should attend. One day of training following implementation is also required. Visitors are welcome at demonstration sites anytime by appointment. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated). Workshops available on a cost-negotiated basis.

Contact: L. Leon Webb, Director
Irene Gilbert, Assistant Director
161 E. First Street
Suite 5
Mesa, Arizona 85201
602-969-4880

Reference: Educational Programs That Work, 1984

Title: Cross-Aged Structured Tutoring Program for Math

Description: This program uses a highly structured, diagnostic, and prescriptive program for use either by paraprofessional tutors or 4th, 5th, or 6th grade student tutors who volunteer their free or study time to assist younger students. After an intensive pre-service training program, positive reinforcement strategies, proper testing techniques, and use of program materials, tutor managers train and supervise groups of student tutors on the prescribed lessons. After a diagnostic-prescriptive criterion-referenced test is administered to each child to be tutored, the tutor determines which math objectives the student has sufficiently mastered. Tutoring begins at the lowest unmastered objective. The program materials allow the student to progress through a specified set of basic math objectives in a systematic manner. Mastery of each prerequisite objective insures success at each progressive level. Daily progress records of objectives mastered are kept on each child, both to encourage the student and to furnish teachers and parents with a measure of progress.

The program may be implemented in a class, school, or district. There must be enough space to accommodate 20 children working in pairs at desks or tables. Start-up time requires two weeks to allow for training of paraprofessional, identification of students, training of student tutors, scheduling tutoring sessions, and obtaining parent and teacher permission for participation. Selected commercial and project materials must be acquired. Awareness materials are available at request at no cost from the school district below. Sample tutoring materials can be ordered from Metra Publishing, 366 South 500 East, Suite 103, Salt Lake City, Utah 83102. Project staff are available to attend out-of-state awareness meetings if travel and per diem is paid. Training and demonstration can be provided at project site or adopter site (cost to be negotiated). Follow-up services available (costs to be negotiated).

Contact: Dr. Geri Plumb
Coordinator of Federal Programs
Joanne Howard or Dee Burrow
Chapter 1 Program Specialists
The Independent School District
of Boise City
1207 Fort Street
Boise, Idaho 83702
208-336-1370

Reference: Educational Programs That Work, 1984

Title: Diagnostic Prescriptive Arithmetic (DPA)

Description: DPA is a basic arithmetic program with emphasis on developing, modeling, and mastering basic concepts and skills. It is a process oriented program emphasizing the development and refinement of teacher questioning skills. It is the arithmetic component of a total mathematics program and includes counting, place value, addition, subtraction, multiplication, and division of whole numbers. Problem-solving skills are developed and reinforced through ongoing experiences with estimation and approximation, data collection, organization and interpretation, and real-life applications of arithmetic skills. Diagnostic tests for the major arithmetic topics (three levels) are used throughout the year to determine students' strengths and weaknesses both in concepts and skills. Prescriptions are then planned using the DPA teacher's manual, manual supplement, and other DPA resource materials. Each of the more than 75 concept-developing and reinforcement activities in the teacher's manual has specific objectives related to the arithmetic instructional sequence and the diagnostic test items. The manual also includes descriptions of ongoing mathematics experiences, recordkeeping procedures, classroom management techniques, and instructions for developing a variety of teacher-made materials.

DPA can be used in self-contained elementary grade classes as the arithmetic component of the mathematics program or as a co-curricula remediation program. Both approaches are essentially the same. A topic section of the DPA diagnostic test is administered, and the results are analyzed for group and/or individual needs. These data are recorded on the analysis chart, which aids the teacher in forming instructional groups and planning a program. Each student begins at his/her level of understanding. He/she may work with or without the teacher in a large group, small group, or independently. The student may use concrete materials for modeling a basic concept and may work with a DPA activity for reinforcing a new skill. The student may complete a written activity for practice or may help in the school by applying arithmetic to a real-life situation. This is a concept-based program that uses manipulatives and physical materials and is adaptable to special education students. DPA provides staff development towards its goal of improved mathematics competency and attitudes for elementary teachers and their students.

Awareness materials are available at no cost. Visitors are welcome anytime by appointment at project site and additional demonstration sites in home states and out-of-state. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated).

Contact: Matthew Scaffa, Director
Janet Castellano, Project Coordinator
Community School District 31
211 Daniel Low Terrace
Staten Island, New York 10301
212-447-3300, ext 36,37,38

Reference: Educational Programs That Work, 1984

Title: "GO-METRIC"

Description: This is a supplemental low-cost metric curriculum (for grades 5-8). It has been used in other settings with grades K-4 and 9-12. The unique design of "Go Metric" provides interested metropolitan and rural school systems, with a model for incorporating metric education into existing instructional programs at minimal additional cost and with no additional personnel. This innovative program includes an elementary and secondary curriculum for all pupils and identifies a range of teaching techniques involving the pupils in a variety of hands-on activities using metric equipment. Audio visuals and games are also utilized to accommodate the special needs of all students. To provide additional in-depth understanding of metrics, the in-service requires teachers to participate in the same metric exercises that are used in the classroom. The curriculum is arranged so that it does not intrude on an already crowded schedule but enhances metric instruction as teachers integrate it into appropriate instructional areas.

The "Go Metric" program is designed to be adapted to any educational setting. Metric kits containing curriculum guides, tests, demonstration equipment, metric items for student hands-on experience, games, and puzzles are packaged in classroom sets for 30 students and require no additional facilities. For full use of the metric curriculum units, staff training by the project developer is recommended. The two-day training workshop, for one to participants, may be provided either at the developer or adopter site. The content of this inservice includes background in metric measurement, orientation to the curriculum guides, use of metric equipment, and a plan for implementing the program within the regular curriculum.

Contact: John E. Roller, Director
"Go Metric" Project
or Roger E. Kruse,
Director of Federal Programs
Tulsa Public Schools
3027 S. New Haven
P.O. Box 45208
Tulsa, Oklahoma 74145
918-743-3381

Reference: Educational Programs That Work, 1984

Title: HOSTS Math: Help One Student to Succeed

Description: This program is a diagnostic-prescriptive, tutorial approach. HOSTS Math is a mastery learning model; however, HOSTS Math's flexibility allows it to be used in a regular classroom as well as in a resource room. Students are carefully placed in a precise sequence of math skills and progress from one skill to the next as mastery is demonstrated. Teachers are provided lesson plans which emphasize the manipulative, representational, symbolic approach to learning. Small group and/or one-to-one tutoring is used to remediate the deficiencies identified by the teacher. Assessment, record-keeping, and review of materials are integral parts of the program available in paper and/or computerized format. HOSTS Math has been designated as a Lighthouse Project by the USDE for its use of computer technology in improving student performance.

Teachers participate in three days of in-service training. Aides and tutors are subsequently trained by teachers. No special facilities or staff are needed. The required implementation materials include Teacher Guide, Record Forms, Lesson Plans, the Math Objectives Continuum, Criterion Tests, and Answer Sheets for each classroom or resource room. The district must be willing to serve as a demonstration site. Awareness materials are available at no cost. Visitors are welcome by appointment at the project site. Project staff are available to attend out-of-state awareness meetings. Implementation and follow-up services are available to adopters (all costs to be negotiated). A computerized version of HOSTS Math is available, and there is also a HOSTS reading program.

Contact: William E. Gibbons, Executive Director
HOSTS Non-Profit Corporation
5802 MacArthur Boulevard
Vancouver, Washington 98661
206-695-1705 or 693-1775

Reference: Educational Programs That Work, 1984

Title: Individualized Prescriptive Arithmetic Skills System (IPASS)

Description: IPASS was designed to increase the achievement of 5th and 6th grade students in mathematics through the use of advanced technology in the form of microcomputers. IPASS employs microcomputers and specially designed software as an integral part of instruction and the management of student progress in a compensatory education setting. IPASS includes locally developed criterion-referenced tests, instructional and management software, cross-referenced tests, cross-referenced instructional resource file, and guides for teachers and students. IPASS objectives can be used to supplement most mathematics curricula without modification. IPASS is designed as a "pull-out" program in which the student receives two 30-minute sessions per week. IPASS can be adapted to a classroom or laboratory setting. A teacher or aide using two microcomputers can serve up to 40 students per week. The program is available on the TRS-80 Model I/III 16K cassette system or the TRS-80 Model I/III disk system (32K minimum). Locally developed instructional materials can be integrated into the remediation process. A training program is required for school personnel implementing the program. No prior experience with computers is necessary.

Visitors are welcome at the project site at any time by appointment. Workshops are available on a cost-negotiated basis.

Contact: Robert R. Reynolds, Director
Project IPASS
Pawtucket School Department
Park Place
Pawtucket, Rhode Island 02860
401-728-2120

Reference: Educational Programs That Work, 1984

Title: Mathematics Achievement Program (MAP)

Description: To help students overcome difficulties in computation and mathematical concepts and to learn basic measurements and geometry skills, eligible students are scheduled into learning centers and provided instruction through a diagnostic/prescriptive system. Scheduling students is a cooperative effort of the Title I teacher and the regular classroom teacher that ensures daily instructional sessions without interrupting classroom math or supportive instructional electives, and no more than one interruption weekly in all other major subjects. Classroom teachers provide Title I teachers with classwork that will be missed by each student attending the learning center sessions. The Title I teacher incorporates pupil needs revealed in the classroom with needs diagnosed in the center to promote maximum learning transfer.

Using a composite analysis of several criterion-referenced achievement tests, an individual Math Profile is developed for each student. Behavior objectives are used to formulate a prescription to meet the interests and needs of each pupil. The Cross Reference Guide supplies information on materials available in very center to be used in remediation of a stated skill. Each MAP learning center is staffed with a certified elementary teacher and a teacher aide who serve about 62 pupils. Thirty-minute instructional sessions are conducted in small groups in which the teacher-pupil ratio does not exceed 6/1 per class period. Instructional methodology varies with pupil need and interest. The number of sessions ranges from three to five per week.

Staff development provides for the planning, implementation, and evaluation program. The Program Guide, developed by Title I staff, directs the instructional and supportive procedures. Staff development is conducted during the school year for teachers and aides. Workshops available on a cost negotiated basis.

Contact: John W. Williams
Mathematics Achievement Program
Chester Upland School District
18th and Melrose Avenue
Chester, Pennsylvania 19013
215-447-3865

Reference: Educational Programs That Work, 1984

Title: Mathematics/Technology (MATH/TECH)

Description: This mathematics program integrates the microcomputer into the classroom with a proven instructional curriculum for grades 7 and 8. It includes three critical need areas: (1) the need to teach students how to solve problems, (2) the need to become computer literate, and (3) the need to be aware of the use of mathematics in jobs. The curriculum parallels the traditional mathematics classroom program. Students use worksheets with and without microcomputers for 35 to 40 lessons of one-fifth of the math time. The project teaches them: to use microcomputers with confidence; to write BASIC problems; to improve their problem solving skills of rounding and estimating, processing information from graphs, tables, and charts, and solving word problems; to improve their ability to work with decimals, fractions, and percentages. Computer literacy in project MICRO/MATH is defined as the students' ability to: (1) understand how a computer works, (2) develop programs in BASIC language, (3) use computer skills in problems associated with specific jobs, and (4) read and interpret computer output.

The MICRO/MATH project can be readily adapted to a broad spectrum of established classroom organization structures and draws upon many modes of instruction. The project does not require restructuring of the school curriculum nor additional personnel. It can be adopted by a single classroom or by several classrooms who share computers.

Staff training of ten hours introduction to BASIC and four hours project usage and management is required. Purchase of materials and availability of microcomputers is necessary. MICRO/MATH can be implemented in typical math classes using regular classroom teachers.

Awareness materials are available. Visitors are welcome at demonstration sites by appointment. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated). Training is conducted at project site or adopter site (costs to be negotiated). Implementation and follow-up activities are available for adopter.

Contact: Carolyn Aho
Director/Disseminator (1983-84)
250 San Pedro Road
Colma, California 94014
415-589-5000

Reference: Educational Programs That Work, 1984

Title: McCormick County Follow Through: Mathemagenic Activities Program (MAP)

Description: This comprehensive education and intellectual development program emphasizes math for economically deprived children in grades 1-3. The McCormick County Follow Through is based on the University of Georgia Mathemagenic Activities Program, which emphasizes learning in classroom environments that stimulate cognitive growth through concrete activities and intellectual challenge for the children. The desired classroom environment evolves from the following principles and processes: (1) after determining each child's developmental level, the teacher creates learning activities based on what children already know which at the same time stretch and challenge them; (2) intellectual growth occurs as children become actively involved in constructing concepts and ideas for themselves as they manipulate and explore with physical materials; and (3) independence (self-regulation) is fostered as children have an opportunity to choose materials and subject matter that will meet their individual learning rates and styles. A combination of structured and non-structured individual and small group activities facilitates physical, mental, and social development.

MAP is implemented in existing regular classrooms with presently used textbooks and supplemented with numerous commercial and teacher-made materials and manuals developed by the sponsor. A trained instructional aide is recommended for each classroom and a person identified to serve as a resource teacher to work with classroom teachers is essential. A parent coordinator is highly recommended. Full implementation would require a health nurse and social worker. Staff development is required.

A wide variety of commercially available materials found in most classrooms is used. Cuisenair Rods, Logic Blocks and Multi-Base Blocks are required (costs vary according to supplier). Sponsor-developed manuals needed are: Logic Blocks (\$.75), Multi-Base Blocks (\$.25), and Strategy Manual for Mathematics (\$2).

Awareness brochures are available at no cost. Visitors are welcome at the project site any time by appointment. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated). Training services are available at the project site or adopter's site (costs to be negotiated). A full staff is available at the University of Georgia to offer assistance in program development, training, and evaluation of project effectiveness.

Contact: Mildred Knight
Project Director
McCormick County Follow Through Project
McCormick County Public Schools
P.O. Box 687
McCormick, South Carolina 29835
803-465-2898

Reference: Educational Programs That Work, 1984

Title: Pre-Algebra Development Centers

Description: This is a complete one-year program to develop basic conceptual/computational mathematics skills and prepare students for algebra. It is intended for regular mathematics classes at the seventh and eighth-grade levels, eight-week summer mathematics programs for students entering high school, and remedial mathematics programs at the high school level. The curriculum design develops students' basic computational and conceptual skills through five units of concentration: ratios and proportions, fractions, decimals, percent, and metric measures. The program's curriculum materials are based on mathematics principles, called Tools of the Trade, which provide a foundation for teaching all concepts and for further learning in mathematics. Tools of the Trade include: ratios and proportions, one -- its name and properties, place value, and the additive and subtractive properties of numbers. The program's original instructional approach involves mathematics laboratory instruction, regular classroom instruction, and individualized diagnosis and remediation (LCD technique) coupled with reading in mathematics.

The program operates in regular classrooms. The regular class schedule can be adjusted to accommodate all phases of the program. Requirements include: three-days of intensive training, the program text materials, and materials for the lab, including manipulatives and diagnosis/remediation kit. The teacher training component of the program covers math lab techniques, individualizing for math instruction, techniques for building a conceptual foundation for mastering basic mathematics skills, and use of the program materials.

Awareness materials are available at no cost. Visitors are welcome by appointment at project site and additional demonstration sites out-of-state. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated).

Contact: Dorothy Strong
Pre-Algebra Development Centers
1819 West Pershing Road 6 C (SE)
Chicago, Illinois 60609
312-890-7945

Reference: Educational Programs That Work, 1984

Title: Project DPI

Description: DPI is a diagnostic-prescriptive, individualized mathematic program. The heart of the DPI curriculum consists of 23 "advancement tracks" or levels which encompass key learnings in arithmetic, pre-algebra, algebra, and geometry that range in difficulty from grades 4-10. For each track or continuum, a sequential set of about 15 study packets (daily lessons) is available. Results of a criterion-referenced pretest are the basis on which teachers diagnose each student's strengths and weaknesses to determine placement of that student in the appropriate study packet of an appropriate track. Each packet, which concentrates on a single objective, contains practice exercises which are written in a multiple-choice format together with explicit instructions. After students complete four study packets, a checkpoint test is given. Successful students advance to the next packet or track, while unsuccessful students are retaught the skills just tested and then given an alternate checkpoint test. At the beginning of each day, quickie quizzes are given to all students in a class. At this point, one-fifth of those students go to the mathematics laboratory. This procedure ensures that the entire class attends the "lab" once a week. Review exercises are given each day to those students not going to the lab, and those students continue with their track lessons. Students move at their own learning pace and use materials which help strengthen specific weaknesses as well as known skills. Students who find they need help beyond the packet instructions benefit from individual assistance given by the teacher or an instructional aide. At the beginning of each track, students are given a posttest to ensure mastery of the skills presented in that track. In the laboratory, students are given lessons whose concepts correlate with current classroom learnings. A laboratory is outfitted with calculators, computer terminals, cash registers, and other math equipment not found in the classroom. The laboratory teacher is informed of the current track assigned to each student as well as the packet within that track on which the student is working. Lab activities require students to manipulate appropriate equipment and materials and to make general statements regarding discoveries made during the lab lessons.

The basic track curricula including tests, refresher drills quickie quizzes, selected lab lessons, and a pre-algebra set are available at no charge on a loan basis for duplicating purposes. A variety of adoptive patterns is possible, ranging from one teacher with no lab to a complete schoolwide program. The project's descriptive booklet is available upon request at no charge. Visitors are welcome at any time.

Contact: Roger W. Shickler, Project Director
Project DPI
Long Beach Unified School District
Franklin Junior High School
540 Cerritos Avenue
Long Beach, California 90802
213-437-8212

Reference: Educational Programs That Work, 1984

Title: Systematic Teaching and Measuring Mathematics (STAMM)

Description: The major objective of the program is to provide continuous progress in mathematics for the entire school experience of all students, kindergarten through senior high school. The STAMM program represents a complete system that can be adopted or adapted by other districts. A framework of objectives and assessment by criterion-referenced tests are basic to STAMM. Careful monitoring of student progress, measurement of mathematics competencies, and alternative courses at the high school level are featured. The program may be used successfully in many different classroom situations, including small-group instruction, large-group instruction, individualized instruction, team teaching, and math lab. Resource material is provided for each objective; textbooks, manipulative materials, and teacher-made resources may be incorporated as well.

Since STAMM is based on continuous progress, it is important for a school using STAMM to keep complete records on each student and to test each student's progress frequently. This enables a teacher, in the fall, to continue a student from where he/she left off in the spring. A teacher with one grade level of students may need to be familiar with more than one level of program to accommodate continuous progress. The basic skills continuum for grades K-8 is covered in levels A, B, C, D, E, F, GE, G, and H. High school courses are defined for Mathematics Competencies, Algebra I, Geometry, Algebra II, Trigonometry, Applied Math, Vocational Math, and Rapid Calculation, Math Analysis, Calculus. Special materials are packaged for Chapter I (formerly Title I) and special education emphasis for use in regular classrooms and labs. Also gifted and talented programs for K-6, 7-8 are now available.

Approximately three fourths of all Jefferson County students now score above the national norm on the Comprehensive Test of Basic Skills at grades 4, 6, and 8. This achievement has been consistent from 1973 through spring 1980. Prior to implementation, roughly half the students scored above the national norm.

STAMM guides, tests, and workbooks may be used by a single teacher or an entire school system. The more levels involved in implementation, the greater the gains from the continuous-progress aspect of STAMM. A two-day training session prior to implementation is recommended. Weekly or monthly meetings are recommended for the local staff. STAMM does not dictate teaching style, and may be used in any classroom setting. Textbooks may be used as an integral part of the program, but experience advises that they be supplemented with teacher-made or STAMM resource materials. Trainers are available through the project.

Contact: Glyn H. Sharpe
STAMM Project Director
Jefferson County Schools
1005 Wadsworth Boulevard
Lakewood, Colorado 80215
303-231-2381

Reference: Far West Laboratory, 1983

Title: Title I Mathematics Computer Assisted Instruction (CAI)

Description: CAI is a diagnostic/prescriptive pull-out mathematics program with students receiving minutes of daily concentrated drill on CAI. (a mathematics program for Title I students in grades 3-6). Lafayette Parish had an effective diagnostic-prescriptive mathematics ESEA Title I pull-out program and in order to increase growth in mathematics, computer-assisted instruction was added to it. The program is operated with close coordination of math-lab instruction and daily CAI drill. The CAI program adjusts instruction to the level of the students and provides immediate feedback to the student. The CAI program provides daily, weekly, and monthly descriptions of progress and areas of difficulty which the classroom teacher can use to correct specific conceptual misunderstandings. Classroom instruction is imperative in providing conceptual understanding and remediation. Daily CAI drill provides the practice which Title I students especially need. This particular program was operated with 40 minutes a day of mathematics laboratory time and ten minutes of CAI. The particular program was devised by Computer Curriculum Corporation of Palo Alto, California. The addition of CAI instruction produces significantly superior achievement when compared to standard mathematics laboratory instruction.

Math Lab - CAI can be adopted to supplement any regular program if 200 students are enrolled. Two to three days of in-service training are necessary. The project used Computer Curriculum Corporation Programs from Palo Alto, California. Correlation between your project and CAI must be established.

Awareness materials are available. Visitors are welcome at project site anytime by appointment. Project staff are available to attend out-ofstate awareness meetings (costs to be negotiated). Implementation and follow-up services are available to adopters (costs to be negotiated).

Contact: Mr. Marion J. Cortez, Supervisor
Federally Supported Programs
Lafayette Parish School Board
P.O. Drawer 2158
Lafayette, Louisiana 70502
318-232-2620, ext 307

Reference: Educational Programs That Work, 1984

Programs for Reading Instruction

Title: BASIC: California Program in Reading

Description: BASIC is a program to improve reading skills by emphasizing the learning of processes which apply to any content area or learning situation for grades 7-8. This program was certified by the Joint Dissemination Review Panel (JDRP).

BASIC's program cycle serves the entire regular education student body of the school across the range of reading abilities for a period of two consecutive years. Appropriately designed instruction is provided to both students who read below grade level and those who read on or above grade level. Based on reading performance, a reading specialist places each student in one of four reading levels. All levels are represented in each classroom and curriculum materials are assigned accordingly.

BASIC's emphasis is on the learning of processes which apply to any content area or learning situation. A master set of learning and thinking processes are taught throughout the program for the acquisition of new vocabulary, the improvement of writing skills, improvement of reading comprehension, and extension of skills requiring higher cognitive levels of functioning. Students are taught to overview and preview materials before beginning more intensive study; they are taught how to organize materials and information to increase learning efficiency and improve understanding. Instruction is delivered in the English, social studies, and math classes through three strands; small group reading and language skills instruction, class size group activities, and computer-assisted instruction. Small group activities are scheduled so that each participant receives intensive reading and writing skills instruction daily in one of the content classes with a group of 6-12 other students. Two reading specialists and classroom paraprofessionals assist the regular teachers during small group sessions, and meet weekly to maintain instructional coordination. For schools adopting the computer-assisted instructional component, the reading specialist coordinates the specific skills reinforcement each student needs with the available computer programs in math and the language arts. No special equipment, curriculum materials, or physical facility is required. With a minimum of two inservice training sessions, regular classroom teachers can use BASIC in a regular classroom setting. Schools have adopted salient features of the program without hiring a new reading specialist. Awareness and in-depth materials are available at no cost. Visitors are welcome by appointment. Training sessions outside California are available with adopter bearing all costs.

Contact: Ms. Donna Kay LeCzel
Benjamin Franklin Middle School
1430 Scott Street
San Francisco, California 94115
415-567-0929
415-565-9654

Reference: Educational Programs That Work, 1984

Title: Coordinated Learning Integration — Middlesex Basics (CLIMB)

Description: CLIMB is a diagnostic-prescriptive continuous-progress approach to the acquisition of reading and study skills across content areas that provides a management design for coordinating and integrating classroom and support personnel using existing instructional materials used for grades K-12. This program is certified by the Joint Dissemination Review Panel (JDRP).

The project includes a teacher-developed and teacher-based curriculum component which:

- identifies reading and mathematics basic skills for grades K-12 in the form of skills arrays
- provides an evaluation system in the form of criterion-referenced tests for each basic skill identified
- provides a record keeping system that monitors student progress through Grades K-12.

It also has a teacher training component consisting of methods for:

- utilization of the curriculum components
- identification and correlation of adopting district's curriculum materials to CLIMB skills arrays
- administrative tactics for coordinating classroom instruction with support personnel
- classroom implementation
- incorporating basic skills into content areas.

Teachers and administrators participate in a two-day training for effective utilization of CLIMB curriculum and management design. A follow-up training session is recommended. Teachers must be supplied with the CLIMB curriculum materials. The program can be adopted in either reading and/or mathematics at any or all grade levels. Awareness materials are available at no cost. Visitors are welcome at project site any time by appointment. Project staff are available to attend out-of-state awareness meetings. Training is conducted at project site or adopter site. Implementation and follow-up services are available to adopters. All costs are negotiable.

Contact: Mrs. Barbara Brenner
Middlesex Public Schools
Administration Offices
Kennedy Drive
Middlesex, New Jersey 08846
201-968-4494

Reference: Educational Programs That Work, 1984

Title: Improve Minimal Proficiencies by Activating Critical Thinking
(I.M.P.A.C.T.)

Description: IMPACT is a staff development program to infuse critical thinking skills and the application of a critical thinking curriculum to the teaching of reading. This program is applicable for students in grades 7-9 and is certified by the Joint Dissemination Review Panel (JDRP). The major emphasis of project IMPACT are a critical thinking skills and the application of a critical thinking curriculum to the teaching and/or remediation of reading and mathematics. The materials include 60 lessons focusing on aspects of critical thinking skills drawn from the critical thinking universe. Lessons consist of: classifying and categorizing information; ordering, sequencing and ranking ideas; recognizing patterns and relationships, differentiating fact and opinion; identifying relevant and irrelevant information; identifying reliable sources of information; effective questioning; understanding the meaning of statements; seeing cause and effect relationships; making generalizations, forming predictions and making assumptions; identifying points of view; and logical reasoning. The lessons are written in an "easy to implement" format including identification of the level of the critical thinking universe addressed, the skill being taught, the student behavioral objective; any pre-requisite skills, the level of Blooms Taxonomy being tapped, and the materials and equipment required. Special emphasis is placed on higher level questioning pooled with informational strategies for assisting students to organize and verbalize their thoughts.

The project requires an intensive three-day inservice in which teachers (20-25) are oriented to the purposes and the strategies of IMPACT. Following training, participants assess their knowledge of critical thinking readiness. In addition, one person who has completed training is required to attend a two-day seminar to equip him/her to train other teachers. IMPACT instructional programs must be obtained the sufficient quantity for teachers to completely familiarize themselves with the content and have them ready for use.

Contact: Dr. S. Lee Winocur
Orange County Board of Education
200 Kalmus Drive
Costa Mesa, California 92629
714-966-4364 or -4375

Reference: Educational Programs That Work, 1984

Title: Individualized Computer-Assisted Remedial Reading Program (I CARE)

Description: This project is an effort to supplement the existing reading program for the high school vocational education student. Through the use of a microcomputer, individualized and small group instruction allows the students to set his/her own learning pace. Each student must spend a 50-minute class period each day involved in this program in lieu of the regular English class. On a rotating basis, a student spends one week in each of the following five areas: Vocabulary: More than 100 vocabulary programs exist, each of which contain at least 20 words. Words are spelled out letter by letter, and four choices are offered. Students are informed by the computer of correct and incorrect responses, percent score, and a list of those incorrectly defined. Students must complete a minimum of 30 computerized vocabulary programs. A mastery score of 80 is necessary to move on to another program. Reading: Students must also complete a minimum of 30 computerized reading programs. There are a total of 190 programs that allow the students or teacher to select number of words per minute. The computer then displays the reading material, followed by 5-10 questions related to the reading. Students are presented with number of correct responses and a percent grade. An 80 percent mastery rate is requisite for the next program. Reading & Writing Skills: Students must complete a minimum of 25 audiovisual reading programs in areas including basic math, English grammar, word usage, and reading and writing skills. Audio tapes: Subject matter is displayed graphically and accompanied by sound. The vocationally-oriented learning material has companion worksheet(s) that enable students to assimilate the material and respond in writing. Four sets of headphones effect a multiple listening station. Units are available in vocabulary development, reading, comprehension, and basic skills math. A minimum of 10 audio tapes is required. Paperback books: A minimum of 2 paperbound books of the student's choice. More than 100 are available. Rotation among these five areas reduces boredom and discipline problems. The ability of the microcomputer to repeatedly review materials without making value judgments, tiring, or losing enthusiasm enables the curriculum to be highly effective. The main benefits of the program are that teachers determine the content of the computer programs and work with individual students, and the student is able to interact with the computer and set his/her own learning pace.

Students in regular English classes decreased in vocabulary during the same semester in which I CARE students increased substantially in both subtests of American School Achievement Test, Reading Comprehension and Vocabulary.

I CARE can be adopted by a single teacher, a teacher aide, a classroom unit, or by several units. Extensive staff development and training in computer literacy is not a requirement.

Contact: Edward Cope
Project I CARE
Blue Mountain School District
Blue Mountain High School
R.D.1
Schuylkill Haven, Pennsylvania 17972
717-366-1065

Referen : Far West Laboratory, 1983

Title: Project READ-WRITE

Description: Project READ-WRITE is a program in reading and related language arts that uses writing techniques and prescriptions to improve reading comprehension and vocabulary for grades 4-12. This program was certified by the Joint Dissemination Review Panel (JDRP).

Project READ-WRITE is designed to be consistently applied by the classroom teacher to augment the basic reading program in order to develop vocabulary and promote total comprehension. The program involves the application of prescriptions -- specially developed strategies designed to teach one major skill and several ancillary skills simultaneously. Each prescription involves the use of one or more language-manipulation techniques. The prescriptions are structured writing and/or oral activities that can be used with materials already available in the classroom. The prescriptions encourage students to react holistically to a reading selection and to incorporate within the activities their own ideas, experiences, perceptions, and feelings. The prescriptions cover a wide range of reading objectives, from phonics and structural analysis to inferential, critical and creative, as well as literal comprehension. The prescriptions are arranged within the Project READ-WRITE Resource and Instructional Manual according to major objective and level of difficulty. The program also offers a checklist that can be used in conjunction with formal and informal diagnosis to list and establish a priority ranking of pupil needs on a class, group, and individual basis. This checklist becomes an ongoing record of pupil achievement and accompanies the student as he or she proceeds through the grades.

Contact: Fred McCarthy
Newark Public Schools
2 Cedar Street
Newark, New Jersey 07102
201-733-7116

Reference: Far West Laboratory, 1981

Title: Sierra Reading Lab Program

Description: The Sierra Reading Lab is a program of developmental reading instruction and materials in a laboratory setting, for students ages 7-9. It was certified by the Joint Dissemination Review Panel (JDRP).

The goal of the Sierra Reading Lab is to provide the necessary instruction and materials to develop the reading skills of students who have skill deficiencies, and to provide enrichment where needed. This program is conducted in a lab setting with an informal atmosphere, yet is highly structured. Students are divided into heterogeneous groups, and rotate into the lab from a subject class on alternate weeks. The lab is comprised of 10 learning centers that offer a wide selection of activities using various learning modalities. The work is leveled according to students' reading abilities, which range from non-reader to past high school level. The centers focus on reading comprehension, writing, structural analysis, vocabulary, self-esteem, listening, research, library skills, recreational reading and computers. A diagnostic-prescriptive approach to teaching assures each student of individualized instruction. The skills and focus are determined for each student at the beginning of the 7th grade using the McGraw Hill's Prescriptive Reading Inventory PRI, as a measurement tool of reading abilities. Students with like deficiencies are skill-grouped, with students moving to other skill areas as specific skills are mastered. This pattern is followed during the year as all crucial deficit skills are addressed. The computer center provides reinforcement, extension and enrichment experiences. In the regularly scheduled reading and English classes, these same crucial skills are emphasized with whole class activities for 20 minutes each day for a three-week period. The lab activities reinforce and supplement this skills instruction. The Sierra program includes a week-long staff development component. Topics include: instructional materials, individualized instructional techniques, behavior modification and motivation strategies, use of computers in the classroom and promoting the development of students' positive self-concept.

Staff must be committed to a child-centered, diagnostic-prescriptive approach to teaching, and be willing to utilize learning centers and small group instructional techniques. Sierra's total program is suited for adoption by a whole school or district. A close liaison between the lab staff and the classroom teachers is recommended. Individual components of the program can be adapted for use in any class or lab. Depending on available resources, the lab can be staffed by a teacher with an aide, or as has been done in several cases, with an aide alone. A five-day staff in-service is recommended for adopting schools. Awareness materials are available at no cost. Visitors are welcome at project site by appointment. Project staff is available to attend out-of-state awareness meetings and training sessions, with costs to be negotiated. Training is also available at the project site.

Contact: Ms. Barbara Clark
Demonstration Reading Program
Sierra Junior High School
3017 Center Street
Bakersfield, California 93306
805-328-4838

Reference: Educational Programs That Work, 1984

Programs for Mathematics and Reading Instruction

Title: Computer-Assisted-Diagnostic-Precriptive Program in Reading and Mathematics (CADPP)

Description: CADPP is a diagnostic-prescriptive pull-out program using resource labs and computer assistance to prepare remedial reading and remedial mathematics educational plans and weekly prescriptions. It is approved by JDRP as a reading program for grades 3-9 and as a math program for grades 3-7.

CADPP was developed in response to the SRA test scores of Buckingham County Public Schools' educationally disadvantaged students which showed an annually increasing gap between normal expected growth and actual growth. The resulting resource laboratory program combined with a computerized information retrieval system allows for accurate diagnosis of a child's needs in reading comprehension and computation and provides the teacher with prescriptions (materials and methods) that help in teaching to those needs.

A locally developed battery of standardized criterion-referenced tests is used for diagnosis and evaluation. The computer system prescribes learning activities based on individual achievement levels, learning modalities, and interests; channels students to the learning centers; tracks progress to ensure that prescriptions are not repeated; and maintains continuous progress reports for the students, teachers, and parents.

Three-year, fall-to-fall testing (1976-78) with the Science Research Associates Achievement Series documented positive trends through standard score gains. CADPP can be adopted by a single classroom unit or by several units. Extensive staff development and training in criterion-referenced design and development, instructional management systems, performance/process evaluation, monitoring, and individualized instruction via the learning station approach to management are required.

Contact: Debra J. Glowinski
Director of Federal Programs
Title I Office
P.O. Box 292
Dillwyn, Virginia 23936
804-983-2714 or -2863

Reference: Far West Laboratory, 1983

Title: Reading -- Individualized Remedial Laboratories
Math -- Individualized Remediation

Description: The reading laboratories have been developed for high concentration on the improvement of basic reading skills. A reading laboratory staffed by one special reading teacher and a paraprofessional accommodates 80-120 students daily for the entire school year. Each student's daily prescription includes two or more activities designed to meet his/her needs. Students' prescriptions include programmed and self-instructional materials purchased from a variety of vendors or developed by both consultants and project teachers. Emphasis is placed on in-service education, focusing on cognitive reading skills and on the management and use of individualized instruction in the classroom. In-service education is provided through workshops, consultant classroom visits, and local supervisory services and support.

The mathematics program provides systematic remedial instruction in areas of individual student weaknesses. A teacher and a paraprofessional work with 80-120 students daily in a specially equipped classroom. The mathematics laboratories are characterized by a focus on carefully selected essential concepts, skills, and applications with number ideas and computation; an individualized approach to the instruction; a meaningful approach to the learning of content; careful monitoring of student achievement; and teacher guidance in a supportive atmosphere. The program is based on project-developed materials, reinforced by a variety of supplementary resources and activities. Daily work is guided by individual prescriptions consisting of two or three types of activities. Inservice education is strongly emphasized through workshops, consultant visits, and local supervisory services and support. Evaluation of project content, materials, instructional procedures, and overall achievement pattern of students, is ongoing. An extra teacher and paraprofessional are required to serve up to 120 students.

This project is approved by JDRP as a reading program for children ages 6-18. This program has been used in other settings as a mathematics program, but no evidence of effectiveness has been submitted to or approved by the panel.

Data collected 1977-1978 following JDRP approval showed the following average gains over an eight-month period: Slosson Oral Reading Test, 1.28 years' average gain; Gray Oral Test, 1.51 years' average gain; California Reading Achievement Test, 1.15 years' average gain; California Math Test, 1.11 years' average gain. The individualized laboratory approach seems also to minimize student negative behavior through individual and positive reinforcement.

Contact: Virginia Morgan
Reading Laboratories
Dougherty County School System
P.O. Box 1470
Albany, Georgia 31702
912-888-5800

Reference: Far West Laboratory, 1983

Title: A Systems Approach to Individualized Instruction (SAII)

Description: SAII has developed criterion-referenced tests and learning modules for 155 reading skills (e.g., readiness, phonics, syllabification, and structural analysis) plus 200 criterion-referenced tests and learning modules for the computational skills of mathematics. This project is approved by JDRP for students of all abilities, grades 1-6. It has been used in other settings with grades 7 and 8, but no evidence of effectiveness has been submitted to or approved by the panel.

The project has also developed sets of teacher questions and student worksheets to accompany over 400 paperback books (e.g., Profiles in Courage, Henry Huggins, Little Red Hen). Each set of questions has been divided into lessons, with each lesson having questions on five levels of comprehension: recall, interpretation, extrapolation, analysis, and evaluation. A set of two handbooks is available to help the teacher manage the component parts. The program can be adapted to the areas of diagnosis (criterion-referenced tests -- math and reading) or basic skill development (learning modules in reading and math or comprehension components of reading).

After implementation of the project, there was a dramatic reversal of a declining trend in academic ability at the project school. Evaluation data also showed a positive impact on academic progress of project students. Copies of the evaluation report are available from Northwest Regional Educational Laboratory.

Contact: Charles L. Barker
706 N.W. "A" Street
Grants Pass, Oregon 97526
503-476-7721

Reference: Far West Laboratory, 1983

COMPENSATORY AND BILINGUAL EDUCATION

Compensatory and Bilingual Education -
Secondary (High School Graduation Requirements)

Characteristics of Successful Practice

The need for effective bilingual educational methods is a major concern. Successful programs, which enable language minority students to function in the majority society upon completion, promote the following characteristics in students:

- high levels of English language proficiency
- appropriate levels of cognitive/academic development
- adequate psychosocial and cultural adjustment.

A Discussion of the Literature

The literature highlights the controversy over whether bilingual students should be taught basic skills in their native language or in English (California State Department, 1981). Regardless of how a school district resolves this dilemma, limited English Proficiency (LEP) students should spend as much time as possible in regular classroom environments with peers their own age. They should be encouraged to work in small groups, participate in peer tutoring, and engage in language-rich activities. Teachers should identify and encourage the successes of students whose second language is English and be sensitive to behavioral differences that are culturally founded.

Teachers of LEP students need to understand why differences occur in language use. For instance, the student may know and apply the grammatical rules of his own language and this "interference" will be difficult to overcome. Students will intersperse phrases of two languages, "code-switching" not because they do not know the vocabulary but because of the stylistic or affective value of the "switched" phrase. These and similar behaviors do not indicate learning disabilities, but a sensitivity to language. Teachers should be equally sensitive to the students and respect their native language and culture.

Communication competence is more important than good grammar in the text-book sense. The order of presentation of language skills is listening, speaking, reading, and writing. While English is being learned, the students' cognitive development should continue as normally as possible.

Finally, the New Jersey State Department of Education in a document entitled (High School Graduation Requirements for Limited English Proficient Students, June, 1984) offers guidelines for high school graduation of LEP students: "Research has shown that it takes two to three years to be able to function at a basic level in a new language and an additional two to three years to become fully proficient. Therefore, LEP students who enter school before the 9th grade are expected to meet all high school graduation requirements and pass the state graduation test in English. On the other hand

students with limited English proficiency who enter in grades nine through 12 must be allowed some flexibility in demonstrating mastery of the basic skills. They must meet the same credit, curriculum, and attendance requirements as any student and must take the graduation test in English. But if they cannot pass the basic skills graduation test in English, their basic skills should be evaluated through a special review assessment in the native language, English or a combination of both. They must also pass a state-selected test of English fluency, demonstrating that they can understand, converse, read and write on a basic level in English."

Descriptions of Exemplary Practices and Programs

Descriptions of successful bilingual programs follow.

Title: Clara Barton High School Bilingual Program

Description: During 1982-1983, this program provided tutorial and supportive services to approximately 100 Spanish-speaking students of limited English proficiency (LEP) in grades 9-12 at Clara Barton High School, Brooklyn, New York. The program's main objective was to enable LEP students to function successfully in terms of language achievement and content courses, acculturation, and motivation to remain in school. Students were not scheduled for tutorial sessions but came in when they needed help in specified areas. Students were selected by a multi-criteria process. Supportive services offered by the project included services from the school's grade advisors and guidance counselors and more informal advice and encouragement from program staff. Quantitative analysis of student achievement indicates that (1) students did not meet the program's criterion for English language development, but high pretest scores limited the possible growth in this area, (2) passing rates for program students in spring social studies and foreign language courses exceeded those for mainstream students, and (3) attendance rates did not differ significantly from the general school attendance rate. In the area of staff development, staff members attended relevant university courses. Finally, parental participation was limited because the school is not neighborhood based. Currently, the program is federally funded as a Title VII program. Visitation can be arranged with the director.

Contact: David Schultz, Title VII Advisor
Clara Barton High School
Bilingual Program
901 Classon Street
Brooklyn, New York 11219
718-636-5169

Reference: Collazo-Levy & Sica, 1984

Title: DeWitt Clinton High School Project BISECT

Description: Project Bilingual Spanish-to-English Career Training (BISECT) in its first year of funding offered bilingual instruction, career awareness development, and supportive services to 225 Hispanic students of limited English proficiency. Title VII, Title I, and tax-levy funds supported the program, which was implemented at DeWitt Clinton High School (Bronx, New York). After pre-testing, three courses were selected by each student. Based on interests, career professionals met with students and students also visited job sites. The explorative nature of the offerings has been successful. In addition to student instructional services, a number of other areas were covered: curriculum development, staff development, parent participation, and supportive services, including guidance and academic counseling, home visits, career awareness activities, visits to educational and cultural sites, two newsletters, and visits to junior high schools. Analysis of student data indicated that (1) the program met its objectives in English language development, (2) BISECT students exceeded program objectives in career or vocational classes and in mathematics, science, social studies, and native languages courses, and (3) attendance of program students was significantly higher than the school's general attendance rate.

Visitation: Contact should be made with director.

Contact: Ruth L. Greenblatt, Director
John Paul Castilion, Counselor
DeWitt Clinton High School
100 W. Marsella
Bronx, New York 10468
212-796-3082

Reference: Zephirin & Schulman, 1984

Title: Houston Independent School District Bilingual Programs

Description: This program is a bilingual/bicultural program that provides initial instruction in the children's native language and cultural environment. It is designed to serve Spanish-speaking students by developing culturally and linguistically appropriate curricula, providing relevant training for teachers and aides, developing parent and community involvement in the educational process, and generally effecting a change in attitudes toward bilingual education. The intent of this program is threefold: to improve student self-concept by raising the status of students' language and culture; to increase students' achievement in all content areas in English or Spanish; and to help students become fluent and literate in English. Although initial instruction in all content areas is given in the students' native language, a strong English language development program also is provided. As students attain proficiency in English, they are phased into instruction in English, but may continue instruction in Spanish language development and Spanish reading in schools where the program is provided through the sixth grade. At the secondary level, the program includes English as a Second Language for monolingual Spanish students, and several bilingual courses for students who have already attained some degree of bilinguality. State-adopted materials are now provided for grades K-3. Other materials are provided through state and local funds for grades 4-6. In addition, curriculum guides, performance objectives, and other materials for all grade levels have been written locally. Curriculum bulletins are available on request.

Language proficiency was measured using Language Assessment Scale (LAS). Achievement was measured using objective referenced tests in each language, Interamerican Reading Series tests, and Iowa Tests of Basic Skills for grades 2-5 (low-income urban Mexican-American students). Gains equal those of peers with no English limitation. Teacher training was evaluated by structured classroom observations. Data are collected yearly. Reports are available.

Teachers must complete a 12-hour university endorsement program, pass a Spanish proficiency test, and teach one year in a bilingual program classroom. LESA students are identified and placed in classes according to grade levels. Schedules meeting needs of individual campuses are prepared under supervisory personnel in accordance with the state-wide Design of Bilingual Education.

Contact: Beala Pompa, Director
Bilingual Programs
Houston Independent School District
3830 Richmond Avenue
Houston, Texas 77027
713-623-5126

Reference: Far West Laboratory, 1983

Title: John Jay High School Project "RESCATE"

Description: Project RESCATE, in its third and final year of funding, (1985), provided instruction in English as a Second Language (ESL) and native language skills, as well as bilingual instruction in science, mathematics, and social studies, to 185 Spanish-speaking students of limited English proficiency (LEP) at John Jay High School Brooklyn, New York. In addition, ESL instruction was provided to 20 Haitian, 20 East Asian, 3 Middle Eastern, and 2 Italian LEP students. The overall program goal was dropout prevention. To this end, staff worked with students and their parents, offering a variety of supportive services including individual and group guidance, career orientation, home visits to reduce truancy, tutoring, and an alternative school for students unable to function in the mainstream. The program was supported by a combination of Title VII, Chapter 1, and tax-levy funds. Students were assessed in English language development, native language mastery, and in mathematics, social studies, science, and business and vocational studies. Quantitative analysis of achievement data indicated generally significant academic gains; in addition, the attendance rate among program students was significantly higher than that of the general school population. The following changes were identified as having occurred in the three-year funding period: (1) the return of monolingual English speakers to mainstream classes, (2) extension of ESL instruction, (3) incorporation of a remedial mathematics course, (4) strengthening of local business ties to locate employment for program students, and (5) maintenance of a family language program. The evaluation also identified areas where efforts were less successful: (1) documenting non-Hispanic participation, (2) increasing staff development in policy planning, (3) expanding tutorial services, (4) assessing curriculum needs, and (5) identifying materials available from outside sources.

A follow-up program, Triumfe, a computer-assisted-instruction project for L.E.P. students, is now in place with a career orientation in computers.

Contact: Mr. S. Glickman
John Jay High School
237 7th Avenue
Brooklyn, New York 11215
(718) 788-2124

Reference: Friedman & Schulman, 1984

Title: New Utrecht High School Project IMPACT

Description: Project IMPACT, a magnet program in its third and final year of funding, provided instruction in ESL and Italian language skills, as well as bilingual instruction in mathematics, social studies and typing to approximately 200 students of limited English proficiency in a Brooklyn, New York, high school. Nearly all program students were born in Italy; they varied in English language proficiency, native language ability, and overall academic preparedness. Transitional in nature, Project IMPACT aimed to expedite the acquisition of English language skills necessary for full mainstreaming within one or two years of entering the program. Title VII funds supported administrative and support services staff. In addition to the student services provided, the program focused on curriculum development, staff development, and parent participation. Students were assessed in English language development, growth in mastery of Italian, and in mathematics, science, social studies, and attendance. Analysis of student data from 1982-1983 indicated: (1) substantial improvement of students tested in English on Level III (but not Level II) of the Stanford Achievement Test, (2) a passing rate for program students greater than that of non-program students on the New York State Regents Examination in Italian, (3) achievement of program objectives in mathematics, science, and social studies, and (4) higher attendance rates among IMPACT students than among the school population as a whole. This program has been superceded by BITEC (bilingual innovative teaching education for careers) which serve Italian, Hispanic, Chinese, and Vietnamese.

Contact: Mr. Joseph Rizzi, Coordinator
New Utrecht High School
Project IMPACT
1601 80th Street
Brooklyn, New York 11214
718-232-2500

Reference: Bulkin & Sica, 1984

Title: Project BABS: Bilingual Academic and Business Skills

Description: Project BABS, a language development and support program provided career counseling and job internships with business enterprises, in addition to a computerized reading program, to approximately 600 limited English proficient (LEP) students. The students -- of Chinese/Vietnamese, Greek, Russian, and Hispanic descent -- attended four New York City high schools. The major instructional objectives of the program were to provide participating students with instruction leading to the development of basic skills in both English and the native language; to develop students' business and secretarial skills; and to allow students to apply those skills in after school or summer job internships with local businesses. Title VII funds supported all program staff positions. Due to efforts of the job developer and the curriculum specialists, 12 program students were able to serve as interns with various businesses and agencies during the summer of 1983. In addition, these staff members met with school personnel and students and gave class presentations dealing with career orientation. Curriculum development efforts also were carried out. Parental involvement, on the other hand, did not reach expected levels. Analysis of student achievement indicated variable levels of attainment of program goals. Data were not available, however, for all students at every high school.

Contact: Henriot Zephirin, Director
New York City Board of Education
131 Livingston Street
Room 514
Brooklyn, New York 11201
718-596-5930

Reference: Inman & Schulman, 1984

COMPUTER INSTRUCTION

Computer Instruction

Characteristics of Successful Practice

The great potential and the relative cost of computer technology presents local decision makers with tough choices. No ideal configuration of machines and applications has been developed and evaluated. Instead, each district must consider the options and decide for itself what applications of computers it will implement, what configuration of hardware and software it will purchase, and what resources it will allocate to that effort. Districts which are making the most effective use of computer technology reflect the characteristics of "successful innovators." Specifically they,

- are motivated by specific needs (e.g., achieve specific student outcomes, improve the efficiency of instruction in a content area, etc.)
- establish an ongoing planning process which involves staff in studying alternatives, weighing costs and benefits, and developing specific plans
- allocate resources not only for hardware and software, but also for management and staff development
- monitor implementation and evaluate effects
- take corrective action based on information collected.

A Discussion of the Literature

Much of the literature related to the educational use of computers discusses issues related to computer instruction (Becker, 1981; Southeastern Regional Council, 1984). These issues should be explored by educators before they implement computer instruction.

One issue that requires careful consideration is how the computer should be used in the educational program. The computer is a general purpose tool which can be used in a variety of ways in the educational process. It can help teachers present content, demonstrate concepts and principles, provide practice, assess student learning, and give feedback, as well as help them perform a number of instructional management chores. It can help students do assignments involving searching for information, collecting data, organizing and analyzing data, preparing papers and reports, and solving problems. It can also be a subject in its own right: How does it work? How can it be programmed? What issues surround its use?

Another issue of computer usage is the consideration of cost. The computer is an expensive tool. In addition to hardware and software costs, staff need training, time to preview relevant software, and time to develop plans for using them, and to manage computer activities. Computers are

expensive because, as the technology advances, schools are either faced with buying add-ons to update their existing machines, or buying new machines with built-in features that require expensive interfaces to mesh with existing school systems. The rapid change of technology means that current purchases might become obsolete in a few years, leaving educators in a quandary over appropriate cost-effective actions. Both potential and cost must be carefully weighed in planning for computer education at the local level.

In addition to the literature which deals with issues related to the implementation of computer education programs, there is a substantial body of literature on computer applications which can be considered in four clusters. First, there are the reports which have resulted from the major federally-supported efforts of the late 1960s to develop computer programs and systems which help students master reading, mathematics, and language arts objectives. They describe the characteristics of such programs and systems (e.g., PLATO, CCC) and their effects on students, teachers, and schools. In general, these programs provided practice problems and feedback to students. Evaluations of these programs suggest that such computer-based practice of basic skills, when it occurs regularly and supplements directly the school's program, can modestly increase student achievement on standardized tests, foster a more positive student attitude toward learning the skills, and reduce the overall amount of time needed to learn the skills (Forman, 1982; Kulik, Bangert and Williams, 1983; Northwest Regional Educational Laboratory, 1980).

Second, there is the literature advocating computers as a "new basic" which advocates that all students, by the end of high school, should be able to: (1) understand how computers work; know what tasks they can perform; discuss what issues, both individual and societal, surround their use; (2) use a computer for word processing, problem solving, collecting and organizing information, and communicating; and (3) program a computer to perform specific tasks. This literature includes some of the major national reports on the status of education which were released in 1983 (e.g., National Commission on Excellence in Education, 1983; Boyer, 1983; The College Board, 1983; National Science Board Commission, 1983). It also includes advocates of computer literacy programs (Luehrmann and Peckham, 1983; Hunter, 1983; Cupertino Union School District's Plan 1983) for computer literacy across a K-8 curriculum; and the New York State Department's book, Computer Literacy: An Introduction (1982) which provides resources to assist schools to develop their own course(s).

Third, there is the growing research describing how computers are being used in traditional subject areas. One example is anecdotal, appearing in various journal articles (e.g., The Computing Teacher, Electronic Learning), and consisting of teachers' descriptions of projects they have undertaken. A second example comes from federally sponsored projects which are developing software and testing it in school situations (e.g., IPASS, CADPP, and CAMEL). The third example comes from educators who have pooled their knowledge and written collectively, books discussing specific subjects (e.g., Computers in Teaching Mathematics, Computers in Teaching Reading, and Computers in Composition Instruction).

The fourth, and most prolific body of literature, encompasses software reviews. The best reviews are rated against instructional criteria based on sound educational theory and practice, to achieve effective results. These reviews are done by educators who try the software and rate it on such criteria as instructional integrity, appropriate target audience, educational value, degree of match to curriculum goals, ease of use, adequate feedback, program design, teacher-related features, to name a few. These reviews can be obtained by subscribing to software review services (e.g., EPIE), by searching on-line data bases (e.g., BRS/SPIN, SMERC), and/or by reviewing educational software journals (e.g., School Software Review). Another source for finding effective software is by joining (or creating) local school user networks (e.g., Maryland Instructional Resources Network (MIRN)).

Descriptions of Exemplary Practices

Descriptions of successful programs are included on the following pages.

Title: Computer-Assisted-Diagnostic-Descriptive Program in Reading and Mathematics (CADPP)

Description: The CADPP was developed in response to the standardized, norm-referenced test scores of Buckingham County Public Schools' (Virginia) educationally disadvantaged students who displayed an annually increasing gap between normal expected growth and actual growth. Operating in a resource laboratory, the CADPP diagnoses the needs of participating pupils with a criterion-referenced testing program; inputs information into a data bank regarding student characteristics in the areas of learning styles and achievement levels; inputs information into a data bank regarding the instructional materials within the local school system; and attempts to match up the student's characteristics to the most appropriate instructional material.

The CADPP can be adopted by a single classroom unit or by several units within the system. Staff development/training in performance-process evaluation, criterion-referenced testing, classroom management, and computer literacy are offered by the CADPP staff. The CADPP software program must be used to operate the system, and the availability of computer hardware must be obtained by the adopting district.

The set of computer programs in the CADPP package is available in two versions: batch COBOL and interactive BASIC. The BASIC language is operative on the Apple II and TRS 80 microcomputers. The COBOL version has run successfully on IBM and NCR mainframe computers. The latest extensions of the CADPP have included the addition to the "English As A Second Language" (ESL) skills for bilingual students or migrant education programs requiring this component. CADPP is an NDN funded Developer/Demonstrator Project.

Visitors are welcomed at the project site at any time by appointment. Awareness materials are available at no cost. CADPP training is performed by the developer staff at travel and per diem costs only charged to adopter (lodging and \$20/day food expenses), along with travel costs to the training site. No consultant fees are charged; however, substitute fees may be charged should training require the use of a certified trainer from another adopting site. Training manuals are \$10.00 each. Awareness and follow-up monitoring are available; however, such costs will be negotiated.

Contact: Debra J. Glowinski
Director of Federal Programs
Office of Federal Programs
P.O. Box 292
Dillwyn, Virginia 23936
804-969-3111

Reference: Vaughn, 1982

Title: Computer Literacy: A Hands-on Approach

Description: This is a one-semester hands-on comprehensive introduction to computers, intended for students in grades 7 through adult. The program consists of a student textbook, a teacher's guide and a diskette, which features guided activities to be carried out on the computer. A version of the materials exists for the Apple II family, TRS-80, models III and IV.

Students learn what a computer can do, and how to operate and program a computer. They learn structured thinking and problem solving. They learn about social issues related to computers and their use. No prior knowledge of the computer is necessary, nor is it necessary to have a knowledge of mathematics beyond a fourth grade level.

The materials have been designed for a traditional classroom environment: one teacher, 30 students, 45-minute periods, 5-days a week, 8-week semesters. Students spend every other class period working at the computer; no teacher supervision is needed during hands-on activities. The textbook guides students through discovery activities and individual problem-solving projects. Students also learn structured programming, using BASIC, and common debugging and trap-avoidance techniques. Finally, it presents computer awareness topics which include: growth, history, trends, ownership/privacy/security data, business applications, and impact on jobs/careers. A workbook and answer book are available.

Contact: McGraw Hill Book Company
Webster Division
New York, New York 10020
Toll free: 800-223-4180

Reference: Luehrmann & Peckham, 1983

Title: Computer Literacy: An Introduction

Description: This document, prepared by the New York State Education Department, provides a collection of useful materials to help schools in defining what they would like computer literacy to be.

The first section includes a survey of views on computer literacy, and indicates some ongoing activities in New York State. The remainder of the publication contains reprints and abstracts of some of the most recent articles on computer literacy, and materials on literacy programs from around the country. Two annotated bibliographies are also provided.

**Contact: George Casler, Training Coordinator
Center for Learning Technologies
State Education Department
Albany, New York 12234
518-474-5823**

Reference: Center for Learning Technologies, 1982

Title: Computer Literacy Curriculum (K-8): The Cupertino Concepts

Description: This is a K-8 curriculum plan (matrix), to assist schools in designing a computer literacy course to teach students about computers and their applications, to develop the skills necessary to communicate with computers, to recognize the computer's capabilities and limitations, and to provide the knowledge needed to make wise educational choices in high school and eventual career choices. The curriculum matrix presents the "desired levels of knowledge" students will demonstrate, across eight areas: computer awareness, computer interaction skills, computer programming skills, as well as integrating into subjects like social studies, language arts, science, and mathematics. Skills covered are sequenced from fundamental to advanced. For a printed curriculum guide, mail request to address below.

Contact: Pam Skinner, Project Director
Cupertino Union School District
10301 Vista Drive
Cupertino, California 95014
408-252-3000, ext. 286

Reference: The Computing Teacher, March 1983, 10(7), 7-10

Title: Individualized Prescriptive Arithmetic Skills System (IPASS)

Description: IPASS was designed to increase the achievement of intermediate grade students in mathematics through the use of advanced technology in the form of microcomputers. IPASS employs microcomputers and specially designed software as an integral part of both instruction and the management of student progress in a compensatory education setting. IPASS is an efficient and highly cost-effective project.

IPASS is designed as a "pull-out" program in which the student receives two 30-minute sessions per week. Using two microcomputers and a teacher or aide, up to 80 students per week can be served. IPASS can be adapted to an in-class or a laboratory setting. IPASS software is available in tape format for TRS-80 Models I-tape, II/III 16K, III/IV-disk cassette systems, TRS Color and Network-disk and Apple IIE-disk. An intensive training program (1½ days) is required to fully implement IPASS; however, no special computer skills are required. Provision is made within the IPASS program for locally available instructional resources to be merged into the remediation activities.

IPASS includes locally developed 40 pre- and 40 post-criterion-referenced tests, 159 instructional objectives for grades 1-8, 99 drill activities for grades 2-6, management software, cross-referenced tests, cross-referenced instructional resource file, and procedural guides for teachers and students.

IPASS objectives can be used to supplement most mathematic curricula without modification. Students achievement gains between pre- and post-testing on Metropolitan Achievement Tests in 1980-1981 are substantial and significant -- 14 NCE's at grade 5 and 15 NCE's at grade 6. At both grades, those gains for grades 2 to 6 were about twice the size of national Chapter 1 gains for math projects at the same grade levels using the same testing cycles. The results represent gains from nine different school settings. IPASS is an NDN program.

Contact: Robert R. Reynolds, Director
Project IPASS
Pawtucket School Department
Park Place
Pawtucket, Rhode Island 02860
401-728-2120

Reference: Vaughn, 1982

Disruptive Students

Characteristics of Successful Programs

Programs effective in dealing with disruptive students include the following elements:

- clear expectations for student behavior and discipline rules that are consistently enforced
- training for teachers in classroom management and effective discipline practices
- strong administrative leadership and support in the area of discipline
- early identification and appropriate response to disruptive students
- classroom teachers who handle routine discipline matters
- emphasis on positive student behavior that is dependent on self-discipline and student responsibility rather than the threat of punishment
- a school environment that reduces discipline problems (e.g., one which increases a student's sense of belonging, works to improve a student's self-esteem, ensures success in learning, and reduces authority and status differences)
- access of disruptive students to a caring adult
- extensive counseling to resolve personal problems
- strong school-home communication
- alternative educational classes for students who do not succeed in the regular classroom
- removal of students who violate the law from class and referral to law-enforcement agencies.

A Discussion of the Literature

Disruptive students cause serious problems for themselves, their peers, and their school. Not only do they interrupt their own and others learning, they cause teachers stress, and negatively affect the school climate. Disruptive students often either drop out or are "pushed out" of school. Although the actual incidence of school violence may have declined somewhat from the early 1970s, disruption in the classroom is still a frequent occurrence (Swick, 1980; ERIC, 1981). One out of two teachers reported in an NEA poll that student misbehavior interfered with their teaching to a moderate or large degree.

Students misbehave and interfere with the learning process for a variety of complex personal, family, or economic, societal reasons. Often schools themselves are the cause for the student's disturbance; sometimes they are ill-suited to the educational and social needs of their students. The failure of the school to diagnose special learning needs and the consequent frustration over failure and low self-esteem may contribute to behavior problems (Hyman & D'Alessandro, 1984; Swick, 1980).

Effective school research indicates that successful schools are safe and orderly with a minimum of student misbehavior (New Jersey State Department of Education (a), 1984). It also shows that schools can implement programs that make them safer places, reduce teacher victimization, improve student attendance and self-concepts, better teacher morale, and reduce student alienation and rebelliousness (Gottfredson & Daiger, 1979).

Research suggests that students begin to behave better when they have an improved image of themselves and their schools. Much of what seems to be effective with the disruptive student is preventative rather than reactive in nature: clear expectations for student behavior, and consistently enforced discipline rules or good classroom management skills and effective disciplinary actions by teachers (Duke, 1982). The emphasis in programs should be on the reinforcement of positive student behavior rather than the threat of punishment. Many educators feel that out-of-school supervision for infractions of disciplinary rules should be used sparingly because although they provide a cooling-off period, they are in the long run unsuccessful (Pennsylvania Department of Education, 1984). An alternative educational program that provides instruction outside of the regular classroom is the most frequently used technique with disruptive students (Mann & Gold, 1980).

Descriptions of Exemplary Practices and Programs

Descriptions of successful alternative education programs for disruptive student follow.

Title: Central Bucks School District Opportunity Program

Description: This program of the Central Bucks School District in Pennsylvania is primarily for disruptive students who become alienated from school and who will be the actual or "mental" dropouts in high school. These students frequently disrupt classes to such an extent that they prevent others from learning, or they constantly persist in behaviors which violate school rules. Very often these students exhibit a pattern of irregular attendance, refuse to do any schoolwork, lack parental direction or control and are consistently in trouble both in and out of school. Additionally, school-phobic students and dysfunctional family setting students participate.

The school was created specifically for those students for whom the junior high school had totally exhausted its usual range of educational and disciplinary resources -- for that small percentage of students who cannot be positively motivated, effectively controlled, or productively retained in a regular school program. Students who exhibit the previously noted characteristics must be referred by both their counselor and administrator to a child study team. This team, made up of an administrator, counselor, psychologist, social worker and a regular and alternative teacher, reviews the student's record and gathers additional information necessary to make a determination concerning placement. A primary consideration in arriving at a decision is agreement by team members that the school has exhausted its regular options in dealing with the referred student. Once referred to the alternative school, a committee of administrators, alternative school staff, social workers, psychologist and pupil personnel services director determine the timetable for entrance.

For the alternative school to be as different as possible from conventional school programs, it has been located in a former elementary school away from any of the other schools in the district. In that way the rules and organization of the school can be completely innovative and appropriate only to the program. The programs are staffed by three teachers, whose certifications cover the major and several added subjects areas, and a teacher aide. Enrollment in the alternative school does not exceed 25 students so that the classwork may be individualized.

There is a required three-day visit for students prior to entrance to the program to ensure voluntary attendance. Prior to entering the program, the student is administered certain achievement tests, diagnostic instruments in reading and math, and a measure of self-concept. These form the basis for developing an educational prescription for the student, serve as a method of checking on progress, and with subsequent post-test administrations, determine the overall effectiveness of the program.

The instructional component of the program follows a diagnostic-prescriptive approach and emphasizes basic skills. Instruction in core areas is accomplished in tutorial or small-group teaching situations. In addition to the strong academic component, a concerted program of behavioral emphasis also takes place. Behavior is monitored and structured through a "reality therapy" approach, which incorporates several "reward" levels earned by

appropriate behavior. In this system, responsible behavior is rewarded by a system of rewards and special privileges related to the level earned, which in turn, is keyed to a time span in which responsible behavior has been maintained.

An effort is made to create a strong "caring" relationship between staff and students, which facilitates teacher and peer counseling activities as part of the regular daily program of the school. All students are visited by their home school counselor to allow students to maintain contact with their regular school and to receive counseling and information related to their special problems or concerns. In this way, when the student is ready to terminate the program, the home school counselor will play the key role in integrating the student back into the regular school.

Contact: Dr. Robert Laws
Director of Pupil Personnel Services
Central Bucks School District
315 West State Street
Doylestown, Pennsylvania 18901
215-345-1400

Reference: Pennsylvania Department of Education, 1981

Title: Chestnut Alternative Program (CAP)

Description: The program is based on the philosophy that discipline is educational in nature, rather than a matter of behavior control. CAP is an in-school suspension program in which students grades 7-9 receive individualized tutorial assistance and counseling.

Counseling is an important aspect of the program and is offered in group sessions and individually. It aims to improve the student's attitudes toward self and others, thus building self-esteem and self-confidence so that the formal school program may resume. Motivation is often facilitated by behavior modification plans. The student's progress, both academic and behavioral, is assessed every five days.

The curriculum focuses intensively on basic skills. Assignments are provided by the regular classroom teacher; students are given full credit for all work completed while in the program. Staff members work on an individual basis with each enrollee, focusing on the student's unique difficulties. Approximately 14 students are assigned to the program at any given time.

Referrals are made by the classroom teacher to the principal. Depending on the severity of the violation, students are assigned to the program for six to ten days. Parents are notified and are required to sign an agreement to have their child enrolled in the alternative school.

Contact: Mr. Ray Morin, Teacher/Supervisor
Chestnut Street Junior
High School
495 Chestnut Street
Springfield, Massachusetts 01107
413-787-7285

Reference: New Jersey State Department of Education (a), 1984

Title: Cope

Description: The program provides counseling and learning opportunities for students grades 6-12 who would otherwise be suspended. Cope has two primary purposes: to serve as an in-school suspension center and to prevent serious behavior problems from developing. Values clarification, group discussions and self-awareness exercises are emphasized. The program attempts to identify student problems (academic, social, emotional) and find resources to alleviate them; establish a positive climate in which successful learning can take place; maximize the use of vocational programs; help students take responsibility for their own actions; and return students to their regular classes with their behavior and attitudes reasonably altered. The program is aimed at improving students' self-image by improving their competency in social and academic skills. All students continue their regular school work while participating in the program.

COPE is housed in a classroom within the school building and is not isolated from the school's mainstream. More than 300 students are served. There are two target populations: (1) students who violate school rules and regulations and, therefore, would be suspended; and (2) students whose behavior affects their achievement, attendance and interpersonal relationships. Referrals may be made by teachers, principals, parents, outside agencies or the students themselves. After a conference with the pupil's parent, the principal assigns the student to the program from one to ten days.

Contact: Stevie Smith, Director
COPE Center
North Allegheny Senior
High School
10375 Perry Highway
Wexford, Pennsylvania 15090
412-935-5767

Reference: New Jersey State Department of Education (a), 1984

Dothan Alternative School

Description: The Dothan Alternative school for grades 6-12 provides an alternative to school suspensions by keeping students with serious disciplinary problems within the school system but in a classroom in a separate school near the administrative offices. The school seeks to modify unacceptable behavior through counseling and to reinforce the regular classroom by intensive academic work.

Counseling and assistance with academic work is provided by the staff who also act as liaison to the school system, parents, and court officials. Daily records are maintained. There are no breaks during the day; lunch is served in the cafeteria, and supervision is provided for visiting the restrooms. Individualized, structured academic assignments are provided by the regular classroom teacher. The staff assists students with their academic assignments and with finding ways to change inappropriate behavior. On an average day, 20 to 25 students are in attendance.

Students who have serious disciplinary problems are referred by their home school for a three to ten day period. For the second referral, the number of days spent in the alternative school are doubled. On the third referral, the home school files a petition with the court, stating that the school system has exhausted its efforts to modify behavior.

Visitation to the program can be arranged through the director.

Contact: Andy Fain, Director
Dothan City Schools
500 Dusy Street
Dothan, Alabama 36301
205-793-1397

Reference: New Jersey State Department of Education (a), 1984

Title: Northern Area Alternative High School

Description: Nine school districts in the northern area of Allegheny County, Pennsylvania, together sought an alternative means of educating a small percentage of their students whose needs were not being met and agreed to establish an alternative high school located apart from each of the sending schools. The students in the alternative high school, grades 9 through 12, have exhibited one or more behaviors such as being truant, being disruptive, alienating themselves from the home school, or not achieving academically. Although they have not been successful in the traditional high schools, these students exhibit a wide range of abilities. Many are preparing for college or other post high school education while some require extensive remediation in basic skills. However, no student with a defined speciality is admitted into the program.

Each participating district is allotted 15 enrollment slots. At the beginning of the school year, guidance counselors and/or principals present a list of recommended students to the alternative school principal. He in turn meets with each student and his/her parents to explain the program. The alternative school is not an ultimatum, but a voluntary program, accepting only those students who want to enroll. Students who choose to attend must first make a commitment in writing, as do their parents, to uphold specific responsibilities. When they enroll, students are assigned an advisor who is familiar with a specific school district and its graduation requirements. The advisor performs a credit analysis on the student to help establish some long range goals toward graduation. Then each student is administered a battery of achievement tests, a measure of self-concept, and an instrument designed to measure student perceptions of education, school, and school personnel. The results of these tests are used by the advisor and student to draw up a schedule of four classes in either English, social studies, reading, mathematics, or work study.

Another interesting emphasis in the alternative school is the attempt being made to use the community as an educational resource. An intensive work study and cooperative education program are available for students, as is a community intership program which gives students credit for volunteer work in one of several social settings. A number of alternative school students are offered to outside counseling centers or other social agencies in the community.

Instruction is centered around three components. The most common is small group instruction. For the student who needs more direct contact with the teacher, individualized instruction is available. These students can spend time with teachers, reading specialists or tutors on a one-to-one basis each day, if necessary. The third component is the "drop-in" program. This program is specifically designed for students enrolling in the work study program, attending a vocational school, or taking courses at the home school in addition to the alternative school. These students meet once a week by appointment with content teachers while working on contracts outside of school for credit.

The primary goal of the program is for each student to graduate from the sending high school. Emphasis on basic skills is accompanied by activities, field trips and enrichment courses designed to permit students creative growth and opportunities for improving socialization skills. A conscious effort is also made to help students accept the responsibility for their own learning and behavior. Positive reinforcement is used by the staff in hopes of enhancing the self-concept of students in the program.

Contact: George A. DeSimone, Principal
A.W. Beattie Technical School
9600 Babcock Boulevard
Allison Park, Pennsylvania 15101
412-367-3320

Reference: Pennsylvania Department of Education, 1981

Title: Peer Culture Development (PCD)

Description: The program is based on the premise that peers have tremendous influence on one another, that human beings derive self-confidence through serving others, and that a person who has learned effective strategies for solving his or her own problems can help others by sharing them. The program operates on the following principles: establishing group attitudes of trust and confidentiality so that caring and sharing can occur; focusing peer influence on more positive behaviors and values; and dealing with the present situation.

Group meetings that follow a specific agenda are considered the pivotal activity in the development of responsibility for self and others. The basic model for this approach involves (1) reporting of problems by students, (2) problem-solving discussion in which student participants analyze and resolve the problem of the day, (3) a final summary of the problem and solution by the group leader. In one semester, students participate in 90 group sessions together, which contributes to development of deep care and concern as well as the production of a more positive life style.

The program meets one period per day, usually during the pupil's gym or study hall period. Therefore, the student's regular academic schedule is continued without interruption. Students receive academic credit for participation in the program. Students are placed in single-sex groups of from 12 to 15 students, heterogeneous in race, grade level, academic ability and behavioral characteristics for one semester.

Student participation in the peer counseling program is voluntary. There is, however, a discipline referral system operating through the discipline office. Disruptive students are referred for counseling, with their regular classroom teacher's approval.

Contact: Sonny Lester
Peer Culture Development
222 West Adams Street
Chicago, Illinois 60601
312-838-5000, 5038

Reference: New Jersey State Department of Education (a), 1984

Title: Project Coffee (Cooperative Federation for Educational Experiences)

Description: Project COFFEE was developed in response to the employment demands of high technology and the increasing number of alienated, disaffected secondary school-age students as a comprehensive instructional program. Project COFFEE has uniquely integrated four components: an academic component that provides relevant (occupational and life-coping) basic skills instruction based on an individualized educational plan; an occupational component that provides hands-on educational experiences in an adult-like high technology work environment while reinforcing basic skills; a counseling component that provides occupational and emotional support utilizing state, regional, and local social service agencies; and a physical education component that offers a program of recreational activities adapted to enable students to develop a sense of self-accomplishment and group cooperation. Each occupational program features job entry skills, job placement skills, shadowing experiences, and a related work-study program. Occupational components include: electronic assembly, data processing, building and grounds maintenance, horticulture/agriculture, distributive education, computer repair maintenance, and word processing.

Project COFFEE was developed by a regional cooperative federation of seven school districts in a highly successful partnership with high technology business and industry. This partnership has provided educational assistance in curriculum development, staff training, occupational training materials, equipment acquisition, competency-based assessments, internship experiences, and more. Materials include: program manual, basic skills curriculum guide, guidelines for industry/education linkage, guidelines for inter-agency collaboration/community outreach, procedures manual for development of competency-based assessment, and diagnostic needs assessment survey manual for student survival skills course.

Three years' scores (1978-1981) on the Stanford Achievement Test documented positive trends through scale score gains not only during the program but when compared with three years' scores prior to entry in project COFFEE. Three-year testing with the Tennessee Self Concept Scales documented significantly higher gains for project students than for members of two comparable groups. Students participating in the data processing and electronic assembly program demonstrated acquisition of entry-level skills as measured by a competency-based assessment instrument. Students demonstrated a statistically significant decrease in absenteeism when compared with a large group of comparable students.

Support of educators, parents, community, school board, local special service agencies, and related business/industries is essential. The project may be adopted by a single school district or by a federation of school districts (cost effective). The program functions extremely well as a "school within a school"; therefore, no additional building site is required. Staffing of the program requires team teaching by a special needs instructor and an occupational instructor for each occupational component adopted. Implementation of a realistic work environment with state-of-the-art equipment is required. An effective communication plan with students, parents, educators, local social services agencies, and related business and industry is required.

Visitation can be scheduled by appointment. Awareness training can be arranged on-site along with a discussion of cost for full training. There is a film/slide-tape about the program and also descriptive materials.

Contact: Mary Ellen Boyle, Coordinator
Project COFFEE
P. O. Box 476
Main Street
Oxford, Massachusetts 01537
617-987-1626

Reference: Far West Laboratory, 1983

Drug and Alcohol Abuse

Characteristics of Successful Practice

Effective drug or alcohol education programs should be aimed at elementary and secondary students. They should incorporate many of the elements listed below:

- clear and enforced policies of drug/alcohol use within the school
- emphasis of a positive life style without drugs that provides viable alternatives to drug use (e.g., recreation, service programs, work-experience)
- a comprehensive curriculum at both the elementary and secondary levels
- accurate and complete information about the physical and psychological effects of drug/alcohol abuse
- student involvement in alcohol/drug prevention programming (e.g., peer counseling, peer tutoring)
- both cognitive and affective educational strategies to strengthen decision-making skills about drug use
- coordination of school programs with family education and counseling and related community services
- development of special materials suited to specific audiences
- identification/remediation of school climate factors that may be contributing to drug/alcohol problems
- avoidance of moralizing, scare tactics, or simple explanations of how drugs are used (these tend to make drugs more attractive to some youth).

A Discussion of the Literature

Drug and alcohol education programs first became prominent during the 1960s and 1970s in response to a rapid increase in student abuse. Although it appears that the level of increasing abuse may have tapered off somewhat, the need for drug/alcohol education remains great. A survey (Johnston, Cachman, O'Malley, 1980) reported that 65 percent of senior high school students had used illicit drugs and 93 percent had tried alcohol. The school, as a major social institution affecting youth, must assume some responsibility for drug/alcohol education because abuse undermines educational goals by disrupting the educational process. Drug and alcohol abuse is detrimental to the students' physical, intellectual, and emotional development and seriously compromises the teaching and learning environment.

Educators must determine which educational strategies are most appropriate and effective in their local setting. Research has shown that while it is relatively easy to increase knowledge about drugs and alcohol, it is more difficult to modify attitudes about them (Scarpitti & Daleman, 1980). The most successful programs combine drug knowledge with development of social maturity and decision-making skills (California State Department of Education, 1981). Students not only receive accurate information about the effects of drug and alcohol abuse, but they also enhance their self-esteem, improve interpersonal relationships, and better decision-making skills. Drug education may include prevention, intervention, or treatment strategies.

Descriptions of Exemplary Practices and Programs

Descriptions of promising drug and alcohol education programs follow.

Title: The Bridge

Description: The Bridge, Inc. of Caldwell, New Jersey, provides drug and alcohol abuse prevention services to youth, ages 12 to 18 who are experiencing problems with family, school, or juvenile justice systems. The program uses a variety of approaches that includes in-house programs and the outreach public school program. Open communication is maintained with local public agencies to enhance coordination of referral procedures.

Bridge counselors work in surrounding senior and junior high schools, providing direct counseling and outreach services. Clients or families are referred to The Bridge Substance Abuse Prevention Project by the counselors, other school personnel, and community agencies. A comprehensive assessment is used to determine the treatment needs of the client. The program provides short-term, (6 to 10 weeks) intervention programs which include services and activities best suited to the client's or family's needs. Programs may include individualized and situational counseling, group counseling, and recreational services.

The post intervention program provides for peer support through a group called "The Friends Club," organized by the school-based Bridge counselors to help students maintain the progress that has been made during intervention. Follow-up activities are also conducted periodically with law and other referral agencies. Costs are based on the person's ability to pay and in accordance with agreements with the local district.

There is also a 24-hour crisis hot-line associated with The Bridge and in-depth long-term treatment is available.

Contact: Mary B. Dusch, Executive Director
Edward A. Fox, Program Director
The Bridge
14 Park Avenue
Caldwell, New Jersey 07006
201-228-3000

Reference: New Jersey State Department of Education (b), 1984

Title: Cambridge and Somerville Program for Alcohol Rehabilitation (CASPAR)

Description: This program provides small group workshops for elementary and secondary teachers, guidance counselors, and administrators. Games, role playing, discussion, and other techniques help participants evaluate their own feelings, separate fact from myths on alcohol and alcoholism, and understand the dynamics of alcoholism as a family illness. Effective methods for teaching about alcohol are also explored.

The program attempts to create an atmosphere in which students can discuss their views and problems openly. Permanent changes in drinking attitudes as well as decreased incidents of drunken behavior are long term goals requiring sequential education over a period of years. Since youthful drinking patterns reflect community and adult values and practices, the most effective educational approach is a comprehensive program touching all possible segments of the community.

As a school and community project, CASPAR offers a field tested curriculum, "Decisions about Drinking," for grades 3-12. It also provides basic and advanced alcohol education courses for teachers in grades 3-12, and school and community based education workshops. Training for selected high school students who can become peer leaders and training-consultation for staffs of local youth service agencies are an important asset of the program. Another advantage of this model is the school community steering committee which works toward raising community awareness about substance abuse.

Documentation of successful results of the CASPAR program are available in the following areas:

- the organization of a comprehensive prevention network for youth
- peer leadership, teacher and community leader training
- demonstration of changed drinking related knowledge, attitudes, and behavior of CASPAR-trained peer leaders and teachers.

This program was chosen as a National Diffusion Network (NDN) program in 1982. Information on cost factors, procedures for adopting, and technical assistance are available from the New Jersey NDN State Facilitator, or the contact listed below.

Contact: Ruth Davis, Assistant Director
Caspar Alcohol Education Program
226 Highland Avenue
Somerville, Massachusetts 02143
617-623-2080

Reference: New Jersey State Department of Education (b), 1984

Title: Chemical Health and Intervention Program (CHIP)

Description: The Union, New Jersey, Chemical Health and Intervention Program (CHIP), includes a K-12 prevention curriculum, a student intervention and referral component, and an employee assistance program. The program is managed by a full-time coordinator and secretary; a part-time counselor is located in each of the district's two junior high schools.

The "Here's Looking at You, Two" curriculum is used in all of the district's schools. A comprehensive program, it has been cited as a model program by the National Institute of Alcohol Abuse and Alcoholism (N.I.A.A.A.). Staff in-service for this program and for the other components is conducted by the district coordinator.

The CHIP program uses a variety of referral procedures. Students may personally seek assistance or they may be referred by school administrators, staff members or parents. Counseling, however, is required when students have been involved in drug or alcohol-related incidents. Students that have parents with a dependency problem are invited to attend ALATEEN sessions held weekly in the evening at the local high school.

The school board Employee Assistance Program, based on the philosophy of progressive unions and corporations, provides assistance to school employees and staff, if needed. The program recognizes chemical dependency, including alcoholism, as a disease which can be treated. Employees and their families are encouraged to participate in rehabilitation and treatment through the CHIP program. Policy statements explaining the CHIP program are circulated throughout the district. Program costs include salaries for a full-time coordinator, two part-time counselors, and cost of curriculum materials.

Contact: Gordon R. LeMatty, Coordinator
Union High School
Union, New Jersey 07083
201-688-1200

Reference: New Jersey State Department of Education (b), 1984

Title: Corner House

Description: This program, used by several Mercer County, New Jersey, school districts, provides an operational model for school districts that wish to establish an ongoing working relationship with private treatment facilities in their area. Corner House, a non-profit outpatient service whose clients range from 13 to 28 years of age, treats life problems that cause anxieties, focusing on drug and alcohol abuse. Clients are referred by schools, parents or by themselves. Clients participate in a comprehensive intake interview which is reviewed by the staff. The interview determines the nature of the treatment, which could be individual, group, or family counseling, or a combination thereof. A peer support group supervised by the professional staff, meets regularly and helps build trust among the clients. Groups comprise 10 to 15 clients who are attempting to eliminate drug problems.

In operation for 11 years, Corner House presently serves 170 people, including parents. Costs are based on the number of family participants, and fees can run from 0 to \$50 per hour for services rendered.

Contact: Mr. Tom Baskette, Director
369 Witherspoon Street
Valley Road
Princeton, New Jersey 08540
609-924-8018

Reference: New Jersey State Department of Education (b), 1984

Title: Here's Looking at You, Two

Description: Developed in the Seattle, Washington, school district in 1975, Here's Looking at You, Two is an alcohol and drug abuse prevention program that was selected as a model program by The National Institute of Alcohol Abuse and Alcoholism. It is currently implemented in 43 states and seven countries. The program meets the following criteria of the National Institute on Alcohol Abuse and Alcoholism: a coordinated curriculum for grades K-12 which is sequential and designed to achieve a cumulative effect over time; a teacher training component; specific drug and alcohol information; high quality, easy to use materials; a mechanism for evaluation; and allows for incorporation of up-to-date information.

The program provides increasingly sophisticated alcohol-related material at each grade level to match cognitive and affective student development. Curriculum materials emphasize the development of health coping skills and decision making, self-image improvement and information skills. The program philosophy incorporates the belief that the incidence of alcohol and drug abuse problems among youth will decrease if youths have a great degree of self-esteem; are better able to cope with life problems; have current facts about alcohol, other drugs, and chemical dependency; and are more skilled in handling personal relationships. The curriculum is divided into seven grade-level groupings (K-12).

The cost of the program varies with the grade levels used and the price of films and other materials. The program may be used as a health education program or may be integrated into other subject area courses and is currently used in the following New Jersey districts: Toms River, Union Township, Manchester Township, Northern Valley Regional, East Windsor, Haddon Township, Bucks County Township.

Additional information may be obtained from the contact agency listed below or your county council on alcoholism.

Contact: Roberts, Fitzmahan and Associates
9131 California Avenue. S.W.
Seattle, Washington 98136
206-932-8409

National Council of Alcoholism
Ocean County
East County Line Road & Ridge Avenue
Lakewood, New Jersey 08701
201-367-5515

Reference: New Jersey State Department of Education (b), 1984

Title: The Peer Helping Program

Description: Originally a Title IV-C program which looked at ways to help the desegregation process in the Bayonne, New Jersey schools, the Peer Helping Program has grown in scope and now deals with family life/sex education and drug and alcohol abuse. It emphasizes developing the human relations skills of the students and reinforcing and using the skills. A cadre of students is trained in each Bayonne school every year in such skills as: showing peers how to get along with each other; increasing students' self-respect and respect for the school environment; public speaking and discussion; self-confidence; and organizing school projects. Two volunteer teachers receive special training which enables them to supervise the group. This training, called "Project Respect," is followed by "Project Action" where students initiate and carry out school improvement projects using the skills they have learned. Elementary students meet during lunch with supervisors, while high school students meet after school. One project had elementary students going into lower grade classrooms to present a drug abuse program. The program is completely funded by the Bayonne Board of Education.

Contact: James Wasser
Peer Helping Program Director
Bayonne Public Schools
Administration Building
Avenue A and 29th Street
Bayonne, New Jersey 07002
201-858-5858
201-858-5925

Reference: New Jersey State Department of Education (b), 1984

Title: Personal Development Program (P.D.P.)

Description: The 15-year old Personal Development Program (P.D.P.) is designed to help ninth graders answer questions about themselves, their needs, and their responsibilities. Personal contact between older and younger adolescents is basic to the program, and is accomplished through a systematic training and involvement of high school sophomore students in a leadership capacity. Student training, which includes a three-day retreat, takes place over a period of several weeks.

Topics covered in the training are described in a specially prepared booklet. Discussion topics include substance abuse, smoking, peer pressures, general adjustment, family related problems, school problems, dating, and the loss of a friend or a loved one. Field day activities help to enforce relationships between the peer leaders and the younger students. Faculty volunteers serve as advisors to the peer leaders and assist in training older students.

If a student or leader needs professional assistance, a referral may be made to one of the faculty advisors, a guidance counselor, the school nurse, a learning disability specialist, or teacher. The program uses the concept of peer group pressure in a positive way, encouraging emulation of upperclassmen as role models.

The Madison, New Jersey, program is unique in that it is student-designed and student-run. Program costs are limited to stipends for faculty advisors, rental fees for retreat facilities, speaker fees and printing. The program is supported by the local board of education.

Contact: Ralph McCabe
Madison High School
Ridgedale Avenue
Madison, New Jersey 07940
201-377-3900, ext. 37

Reference: New Jersey State Department of Education (b), 1984

Title: Starting Early, K-6; Al-Co-Hol, 7-9; Alcohol Countermeasures for High School Driver Education, 10-12

Description: In recognition of the need for early intervention in the growing alcohol problem among young people, the American Automobile Association (AAA), sponsored the development of a comprehensive alcohol education curriculum by Dr. James L. Maffett, Teachers College, Columbia University, which focuses on alcohol and traffic safety for grades K-12.

Individual teacher guides are available for each elementary grade (K-6) and for the junior and senior high school programs. AAA has field tested both the elementary and junior and senior high programs, and evaluation information is available upon request from AAA. The AAA also provides training for teachers who use the program. Curriculum material and training activities are offered at nominal cost. Film and other A.V. materials may be borrowed or purchased through the local AAA agencies.

Starting Early, the elementary school program, presents five lessons for each of seven modules on alcohol awareness. The activities related to the child's real world, explore attitudes on drinking and provide opportunities to respond to alcohol related situations.

Al-Co-Hol, the junior high school program, provides students role-playing, discussion group, and game playing activities. Students work in teams which monitor their progress through a point system built into the program and also do assignments outside the school.

Alcohol Countermeasures for High School Driver Education, the senior high school program, assists students in reducing their chances of becoming involved in driving-while-intoxicated incidents. Stressing mature, responsible decisions about drinking and driving (including non-drinking), the program offers informational, alternative, and behavioral approaches.

Program information is available from the safety/public relations department of local or regional American Automobile Association offices.

Contact: Rita S. Weiss, Educational Consultant
AAA Traffic Safety Department
8111 Gate House Road
Falls Church, Virginia 22047
703-AAA-6344

Local AAA Representative

Reference: New Jersey State Department of Education (b), 1984

Title: Statewide Community Organization Program (S.C.O.P.)

Description: S.C.O.P., Statewide Community Organization Program, a program of the prevention unit of the Division of Narcotic and Drug Abuse, New Jersey Department of Health, is primarily concerned with community organization and their necessary actions to problem-solving. Key components are the involvement of citizens in the recognition of problems; the establishment of dialogue; and the general feeling that community members can take an active role in solving problems.

Training workshop goals are:

- to familiarize participants with the philosophy, rationale, and methods used by the trainers in coordinating services and thereby reducing problems of school, of criminal justice, and of community adjustment (i.e., vandalism, truancy, drug addiction, alcoholism, family crisis)
- to share with other community teams skills in community organizing, program planning, problem solving, team building, and grantsmanship
- to share some specific prevention programs and to discuss and plan procedures whereby similar programs can be established by participants in their own districts
- to create a trusting and knowledgeable relationship among the members of the community team.

The SCOP training team believes that the key to prevention lies in having a representative community team define and clarify its problems. The team then works on addressing these problems on different fronts, working closely with the chief of police, superintendent of schools, youth, elected officials and other community decision makers in planning, developing and enlarging an interlocking network of community support systems. SCOP training is held in various locations throughout the state. Directions and more specific information are provided upon training acceptance.

Each community forms a team of six professionals and volunteers, including elected officials, whenever possible. The community is encouraged to send representatives from the school system, police department, as well as the community-at-large. Recognizing the difficulty in formulating a six-member team which reflects the community, S.C.O.P. intentionally requires, minimally, one person from the community institutions and groups.

Application to participate in this program must be made to the Chief of Prevention, Division of Narcotics and Drug Abuse Control, New Jersey State Department of Health, 129 East Hanover Street, Trenton, New Jersey 08608.

Contact: Charles A. Currie
Chief of Prevention
Division of Narcotic & Drug Abuse Control
129 East Hanover Street
Trenton, New Jersey 08608
609-292-4414

Reference: New Jersey State Department of Education (b), 1984

Principal Leadership

Characteristics of Successful Principals

Research reports that the principal is the key to educational change. Recent studies provide some details. Always recognizing the variability of local conditions and refraining from "one-size-fits-all" prescriptions, these studies delineate some of the things that the principal should do, and need not do, to promote effective innovations.

Research suggests the following (Lake, 1984):

- The administrator is crucial to the introduction of change, but need not always be its initiator.
- Both rational planning and humane concern are needed. Too much emphasis on either will be less effective than a flexible management style that is sensitive to many perspectives.
- The principal need not take sole responsibility. Other actors have important leadership and training roles to play.
- Those being asked to change (frequently teachers) need adequate resource support, long-term personalized training, encouragement and assurance that their efforts are valued by leadership.
- Institutionalization of an innovation should not be left to chance.
- Commitment is vital, but resistance should be expected since the prospect of change provokes strong emotion. Those who are being asked to change will be very sensitive to the commitment level of leaders who sponsor the change. The building of commitment is a continuing process.
- Initial commitment to the idea or voluntary participation by teachers may not be necessary. Commitment can be developed and influenced by their involvement.
- In selecting a faculty planning team, the representativeness of the team and the respect in which its members are held will affect the attitudes of the rest of the faculty toward the innovation.

A Discussion of the Literature

"Until recently, researchers and funding agencies alike have underestimated the importance of the school principal as an agent affecting school outcomes," (Greenfield, 1982). Practitioners, on the other hand, have considered principals to be central figures because of their function as chief administrative officer at the school level. In most states, their responsibilities for administering local schools are defined by law, and they exercise legal authority delegated by school boards and superintendents.

In most studies on school effectiveness, researchers naturally began to ask what makes some schools different from others. As they probed for reasons behind the differences, they discovered that how schools are run corresponds with how well they perform. It is not enough to identify sharp differences among classrooms and the impact of teachers on students. The question that was pursued--for the first time--was why whole schools were effective or ineffective. In case after case, the differences were traced to the actions of principals (Manasse, 1983).

Grade level is important. Obviously, some distinctions exist between the way elementary and secondary principals are able to affect their schools. Elementary schools are smaller. Secondary schools usually have larger administrative staffs through which principals work. Elementary classrooms are normally self-contained and the curriculum less complex than in junior and senior high schools, where the subject matter is more specialized and classes are organized around subject fields.

Nevertheless, all schools can achieve. Researchers found that elementary and secondary principals have much in common when it comes to how their behavior influences their schools. Typically, it is simply necessary to adapt effective approaches to different school situations. Setting high academic standards transcends almost everything else, including grade levels.

Although research on the principalship still is in its early stages, Greenfield noted, it already has come to recognize principals as "important to the development of knowledge and practices useful in enhancing the conditions of learning and improving the consequences of teaching for our nation's youngsters." (Greenfield, 1981)

Descriptions of Exemplary Practices

Descriptions of principal centers are included on the following pages.

Title: The Maryland Professional Development Academy (MPDA)

Description: The Maryland Professional Development Academy provides comprehensive in-service training to Maryland school administrators and other instructional leaders. Primary purposes of the academy are the improvement of instruction through strong leadership at the local school building level and the improvement of management practices and styles throughout school systems.

The academy conducts voluntary training programs for local school administrative personnel on various instructional and management topics related to the needs and challenges facing Maryland school leaders.

The institutes are comprehensive one-year programs planned in cooperation with participants. Week-long summer training institutes and two-day fall and spring follow-up conferences are designed to provide new knowledge and skills to participants. On-site technical assistance and the Academy Grants Program are available to assist with the implementation of building level action plans.

The content and structure of each institute are developed with participants through MPDA planning conferences in conjunction with the consultants to Academy training programs. Consultants are carefully selected from across the United States and have included Madeline Hunter, William Purkey, Eugene Huddle, and Dale Bolton. Enrollment is limited to 25 participants in each institute.

Examples of institutes include: "Increasing Teaching Effectiveness," "Assessing Teaching Effectiveness," "Special Education," "Management of Vocational Education," "Increasing Student Achievement Through Educational Equity," "Instructional Leadership and Human Relations," "Disruptive Youth: Reducing Student Disruption."

Contact: Dr. Skipp Sanders
MFDA Coordinator
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201
301-659-2000

Reference: Maryland Professional Development Academy, 1985

Title: NASSP Assessment Center

Description: The NASSP Assessment Center program has been developed and operated during the past decade by the National Association of Secondary School Principals. The program is intended to identify the strengths and weaknesses of prospective principals and to offer developmental recommendations for increasing their effectiveness. The program consists of three key components. 1) the identification of 12 skill dimensions of effective principals including: problem analysis, judgment, organizational ability, decisiveness, leadership, sensitivity, stress tolerance, oral communication, written communication, range of interests, personal motivation, and educational values; 2) the use of simulation techniques and exercises to provide information for evaluation of the 12 skills such as leaderless group activities, fact-finding, stress tests, administrative in-baskets, a structured personal interview, and participant feedback sessions; and 3) a comprehensive and rigorous training program developed to produce well-trained assessors who administer the assessment process appropriately.

At an assessment center, candidates generally are put through six exercises to measure at least six of the 12 skills during a two-day period. The centers can be operated by school districts, county education offices, regional service units, or universities. By mid-1983, more than 1,250 participants had gone through the centers and 400 assessors had been trained. NASSP intends to have an assessment center in each state to serve as a demonstration project. Evaluations of the project are positive showing assessor agreement on ratings, the appropriateness of assessment center tasks to actual job performance, and a strong relationship between assessment scores and actual job performance.

Contact: Paul W. Hersey
Director of Professional Assistance
NASSP
1904 Association Drive
Reston, Virginia 22091
703-860-0200

Reference: Hershey, 1982

Title: The Principals' Center
Harvard University

Description: The Principals' Center at Harvard Graduate School of Education is a membership organization dedicated to the personal and professional development of school principals and that of many others -- teachers, counselors, department chairpersons, housemasters and sometimes parents -- who influence the character and quality of a school. The center is committed to school improvement from within. It believes that by replenishing the lives of school people, the school experiences of students are enriched.

The Principals' Center is a place where school practitioners play a major role in their own development, just as they play a major role in the development of the schools which they serve. School people have extraordinary insights in areas such as leadership, curriculum, staff development, child psychology, and parent involvement, which are seldom explicit for them, let alone accessible to others. A major purpose of the center is to reveal this abundance of thinking and practice, so it can be more widely available to improve schools. It employs formal and informal means to identify promising school practices and to encourage their visibility and exchange.

Membership is voluntary, open to any person who supports the purposes of the center and who pays a fee of \$120 per year (\$80 per year if all the principals within a particular system join and \$50 for out-of-state members). Currently members bring to the center's conversations an extraordinary diversity of backgrounds and ideas from elementary, middle, high schools, urban, rural, suburban, public, private and parochial schools, and from teachers, parents, superintendents, as well as from principals, university students and faculty. Summer institutes are available in July.

An advisory board of 18 Boston area principals and four Harvard faculty members determines the program of the center, making decisions about themes, formats, and resource persons. Workshops are held two or three times each week around themes such as "The Principal's Role in Teacher Supervision and Evaluation," and "Addressing Issues of Diversity in Schools." Expertise for these sessions is drawn from our membership and the advisory board, as well as from the university community and from outside consultants. The center publishes a regular newsletter to which school leaders are major contributors.

In short, the Principals' Center is an organization which attempts to improve the quality of life and learning in schools by encouraging different ways of thinking about common problems; by transforming school problems into opportunities for school improvement; by encouraging clarification of assumptions guiding practice; by offering opportunities for shared problem-solving and reflection; and by providing a context of mutual support and trust in which personal relationships may be established and developed.

Contact: Ken Haskins
or Sarah Levine
Harvard University
336 Gutman
Appian Way
Cambridge, Massachusetts 01238
617-495-1825

Reference: Barth, 1985

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SCHOOL ATTENDANCE

Characteristics of Successful Practice

Good student attendance is essential for learning, and schools which achieve high attendance rates often have the following characteristics:

- maintenance of predetermined goals for attendance (e.g., 90 percent)
- an attendance improvement plan/strategy if attendance falls below the goal
- careful monitoring of student attendance
- an attendance policy that defines excused absences, processes for home-school communication, responsibilities and procedures for attendance reporting, and corrective measures and penalties
- incentives or recognition for good attendance
- identification of the reasons for unexcused student absence
- early identification of students with attendance problems
- specific educational strategies/programs for potential or actual dropouts
- attention to school climate factors which may influence attendance.

A Discussion of the Literature

Student absenteeism is frequently mentioned as a major concern of school administrators because they are disturbed both by the lost opportunity for students to learn and the lost state aid that is dependent on average daily student attendance. Effective schools have high attendance rates and regular attendance is a prerequisite for learning and achievement (Neill, 1979). Without the benefit of all the steps in a learning sequence, many students do not progress. (California School Boards Association, 1981). Lack of student achievement is not the only problem resulting from poor attendance. Excessive absenteeism frequently leads to a poor school image, extra work for teachers, students dropping out of school, and difficulties for the student later in life -- especially in terms of employment. Research suggests truants tolerate similar behavior in their own children. There appear to be many reasons for absenteeism including poor teacher or peer relationships, academic failure, hedonistic attitudes, psychological problems, after-school work, and difficulties at home (Mervilde, 1981; Brim, 1978).

There is no easy answer to improving attendance. It is clear that schools with good attendance help students recognize its value, have attendance goals, have realistic attendance policies that are enforced, closely monitor student attendance, and identify students early with attendance problems. While a permissive attendance policy often leads to higher

absenteeism, a strong stand may result in only partial success. Incentive plans have also shown mixed results. Student attendance is tied to other factors such as parent and teacher expectations and school climate. (California School Boards Association, 1981)

Descriptions of Exemplary Practices and Programs

Description of effective attendance policies are included on the following pages.

Title: Bayonne School District Attendance Policy

Description: Bayonne High School has adopted an attendance policy that states clear expectations for student attendance, details the responsibilities of students, parents and guardians, and outlines a warning, hearing, and appeal procedure. All students and faculty are made aware of the policy through faculty and student handbooks and orientation programs. According to the policy, students are allowed a maximum of 16 absences per year, or a maximum of four absences per marking period. Students who are absent more than that are ineligible to receive credit. Written warnings are sent to parents on the 8th and 12th absences; violation and hearing notices are sent on the 17th absence. The policy is supplemented by various incentive programs of rewards for regular classrooms with the best attendance records.

In 1980-81, student attendance averaged 83 percent for the year. After implementation of the policy, the attendance rate increased to 91 percent, with average student absences only 15 days.

Contact: Michael Wanko, Principal
Bayonne High School
Avenue A & 28th Street
Bayonne, New Jersey 07002
201-858-5900

Reference: D'Amico, Rouk, & Corcoran, 1984

title: BELLEVILLE SCHOOL DISTRICT ATTENDANCE POLICY

Description: In 1978, Belleville Public Schools formed a Student Attendance Committee made up of teachers, administrators, students, and parents to formulate a new student attendance policy for high school students. According to the policy, approved by the board of education, high school students absent more than 20 days in a full year course or more than 10 days in a half-year course may have credit withheld and/or be dropped from the course. Parents are notified of the students' absences after the 6th absence in a half-year course and after the 12th absence in a full year course and are urged to meet with a guidance counselor so that options and consequences may be explained to them. They are also urged to meet with a school administrator. When students have taken all allowable absences, a registered letter is sent to the parent or guardian informing him/her that because of unacceptable attendance, the student shall be placed in a non-credit status and/or removed from all classes. Parents are also notified after five instances of tardiness. Seven or more tardies result in in-school suspension; at the tenth tardy, an out-of-school suspension is invoked and a parent conference is required for readmittance. The policy also calls for student suspension until a parent/guardian conference takes place after three instances of class cutting. Repeated truancies may result in one or all of the following: counseling by an out-of-school agency; referral to an alternate plan of education; referral to the superintendent with a recommendation for expulsion; or any other appropriate action. Since implementation of the policy, student attendance has improved considerably. Each subsequent year, the average daily attendance percentage for high school students has exceeded 91 percent.

Contact: Michael A. Lally
Assistant Superintendent
Belleville Public Schools
190 Cortlandt Street
Belleville, New Jersey 07109
201-751-4110

Reference: D'Amico, Rouk, & Corcoran, 1984

Title: Lakewood School District Attendance Policy

Description: Lakewood Public Schools has instituted an attendance policy that requires students with more than 14 absences to attend Saturday or summer make-up sessions in order to receive credit for missed work. In addition, students who have lost credit in three or more courses or whose repetitive disciplinary problems disrupt the learning atmosphere or present a danger to other students or staff may be placed in an evening learning program requiring successful night school attendance as the means for re-entering the regular school day program. The policy also states that students cutting classes will receive two absences for each cut, and detention will be assigned students who cut classes, along with Saturday make-up. Eight non-verified absences in a year course and four in a semester result in Saturday school attendance. Students late to class by more than five minutes are recorded absent; students with three class tardies of five minutes or less receive an absence. Student attendance has been maintained at a consistent 92-94 percentage rate.

Contact: John F. Patrick
Superintendent of Schools
Lakewood Public Schools
Lakewood, New Jersey 08701
201-364-2400

Reference: D'Amico, Rouk, & Corcoran, 1984

Title: Millville School District Attendance Policy

Description: The school district has an attendance policy that withholds credit from any student who accumulates more than 12 days of unverified absences during one year. Credit is restored only after students make up their lost hours in a supplemental credit completion program. Teachers in the program have developed a collection of approximately 500 special work packets on a variety of topics. Students must complete one packet for each unverified absence that exceeds the allotted 12. Each packet takes about an hour to complete. In addition to the supplemental credit packets, students are also expected to make up all regular classwork or homework assigned on days they were absent. Students who miss 42 or more days out of the school year are not eligible to use the program; they receive no credit for the year. Since the program was initiated, attendance in the two high schools has averaged better than 90 percent.

Contact: Gene E. Stanley, Superintendent
Board of Education
Millville, New Jersey 08332
609-825-8300

Reference: D'Amico, Rouk, & Corcoran, 1984

Title: Newark School District Truancy Task Force Report

Description: The Truancy Task Force has been identifying consistent patterns of truancy and designing intervention strategies for specific subgroups of students. Beginning with a study of the characteristics of students apprehended for truancy, it first identified several groups of students who tend to be the most difficult truancy cases and the ones most in need of individual attention. The study also pointed out the most common reasons given by students for truancy. Then, the task force designed and implemented appropriate intervention strategies. Truant students were returned to school, where an intervention strategy was recommended. Attendance monitoring was, by far, the most frequent intervention employed. Other often used interventions were daily guidance by an attendance monitor, parent conferences, counseling by a social worker, advising students and/or parents of school rules, and various combinations of these interventions.

The study highlighted important issues regarding the nature of truancy and allowed the school district to take appropriate action. For example, it showed that there is a strong seasonal component in truancy for junior high and high school students, with many more out of school when the weather is warmer. In addition to identifying when students are most likely to be truant and which students they are, it also spelled out the school district's resource needs, including the very important need to involve parents in their children's school life.

The Task Force acts as a referral agent to make certain that appropriate agencies are contacted for the betterment of student life and to make certain that entitled services are rendered to the student.

Contact: Dr. Gene Foti
Deputy Executive Superintendent
for Academics
Board of Education
2 Cedar Street
Newark, New Jersey 07102
201-733-6963

or: Mr. Roderick Alston
Acting Coordinator
Truancy Task Force
131 13th Avenue
Marcus Garvey School
Newark, New Jersey 07103
201-733-5473

Reference: D'Amico, Rouk, & Corcoran, 1984

Title: Passaic School District Attendance Policy

Description: To reduce student absences, the board of education mandates that all students, except for new entrants to the district, are subject to retention in grades 1 through 8 or loss of one year's credits toward graduation in grades 9 through 12 if they are not present at least 162 days during each school year. New entrants to the district will be retained or lose credits toward graduation if their absences exceed ten percent of their total possible days attendance. Parents are notified of this policy at the beginning of each school year, or at the time of entrance to the district. Parents are informed through letter of their children's absences after the fifth absence, and then, again, after the ninth absence. After the second notification, the parent must make an appointment with either a guidance counselor or the vice principal to discuss the matter. The same procedure is followed after the 15th absence, and again after the 18th absence. At that time, the vice principal may determine that there have been usual circumstances for the absences or that course credits will be withheld. This policy is reviewed annually in order to maintain its effectiveness and to investigate alternative strategies for improving student attendance. Since implementation of the attendance policy, student test scores have shown a marked increase. This past year, 9th graders reading scores showed an increase of 16.4 percent over 1978 scores and an increase of 28.1 percent over 1978 math scores. In 1983, 65.2 percent of the students in grade 9 met the state reading standards and 66.9 percent met the standards in math. Elementary school students have also shown marked improvement in California Achievement Test Scores.

Contact: Mr. Allison McCoy
Superintendent of Schools
Passaic Public Schools
101 Passaic Avenue
Passaic, New Jersey 07055
201-778-0660

Reference: D'Amico, Rouk, & Corcoran, 1984

Title: Perth Amboy School District Attendance Policy

Description: The school district has a two-level attendance policy. At the elementary level, a conference between the principal, school nurse and/or classroom teacher is called any time that it appears a child is developing a pattern of absences. When a child has been absent from school for more than 10 days within the school year, a conference is held with the parent and the parent is put on notice that continued absences may result in suspension or expulsion from school. If the matter is not solved satisfactorily, the superintendent may bring the case before the board of education which, in turn, may report it to appropriate authorities. The attendance policy for high school students states that student absences may not exceed 18 a year, or no more than nine a semester. On the fourth cumulative absence, a student conference with both the student and the parent is required. On the eleventh cumulative absence, a non-school attendance complaint may be filed in the Municipal Court. Students over the compulsory school age who show an accumulation of over 18 absences during the school year (or nine per semester) are dropped from the school rolls for the remainder of the school year. They may enroll again the following September to repeat all courses necessary to meet graduation requirements. Attendance in the school district has risen from an average daily attendance (ADA) of 86.6 in 1979-80 to an ADA of 90.3 in 1984-85.

Contact: Frank M. Sinatra
Superintendent of Schools
Perth Amboy Public Schools
178 Barracks Street
Perth Amboy, New Jersey 08861
201-826-3365

Reference: D'Amico, Rouk, & Corcoran, 1984

Special Education - Secondary

Characteristics of Successful Practice

Effective programs for handicapped secondary students reflect the increasing expectations that handicapped students can live and work productively in the mainstream of society after school. Some of the indicators of effective practice are:

- a long-term commitment to work preparedness beginning in the early grades
- identification and careful sequencing of skills with continual assessment of achievement
- use of functional, age-appropriate, curriculum materials, and environments
- maximum interaction with non-handicapped peers (i.e., integration)
- inclusion of community-based job training
- planning for and programming the transition from school to work
- parent involvement in long-term planning and in instructional matters.

A Discussion of the Literature

There has been a large increase in recent years in the number of secondary students served by special education. This has occurred in both programs for students with mild handicaps and in programs for students with long term, more severe handicapping conditions. Currently New Jersey has over 38,000 students with handicaps over the age of 13. Their instructional needs vary widely. Many pupils require only minimal assistance while others require multiple services from special education teachers and related specialists.

Handicapped secondary students have academic, behavioral, or physical needs which are unique or distinguish them from the general secondary students. In addition, the students with special needs despite their diversity, present similar problems for schools, including the instructional challenges of vocational preparation, basic skill (or life skill) development and policy issues of graduation requirements and diploma awards. And, just as some regular students need, for example, bilingual education, so too do handicapped students require the full range of programmatic interventions in effective education. The increase in population has been accompanied by growing literature of research and practice which provides guidance to program characteristics leading to employment after school.

The literature describes effective programs as ones which have appropriate expectations for student success, (Wilcox & Bellemy, 1982), maximum opportunity for interaction with non-handicapped peers (Taylor, 1982), curricular materials which use real and functional methods and equipment (Wehman & Hill, 1982), parent involvement (Wehman, 1981), real work experience in actual community jobs (Wehman, 1981), individual plans which prepare students for the transition from school to work, and training in skills which are known to be in need in the surrounding community (Nisbet, et al., 1982).

Descriptions of Exemplary Programs and Practices

Descriptions of special education programs which meet the characteristics discussed previously follow.

Title: Haddon Township (NJ) High School

Description: In the Haddon Township High School, the special education program features a consultant teacher model in which special education teachers serve as resource people to subject matter teachers. Under the plan, each mildly handicapped student is assigned to one special education teacher. This teacher is, in effect, a case manager who is relieved of teaching duties for one or more periods during the day to work with classroom teachers in evaluating, monitoring, and adapting the regular curricula for that student. He or she is also responsible for ensuring that the student's IEP is followed. IEPs reflect not only a student's special education courses, but also the plan for adapting regular education classes to special needs. For students whose needs are not met by the adapted curricula, staff have developed new, job-oriented, special education curricula in reading, mathematics, science, and social studies. Assessment and scheduling procedures for special education teachers have been revised to enhance handicapped students' opportunities to participate in the regular high school program. Program development and implementation took place during the 1983-84 school year and involved district and school administrators, teachers, special education personnel, counselors, and child study team personnel.

Contact: Dr. Jerry Scheinberg
Director of Special Service
Haddon Township Public Schools
Memorial Avenue
Westmont, New Jersey 08108
609-854-6525 ext. 215

Reference: D'Amico, Rouk, Corcoran, 1984

Title: Metropolitan Madison Public Schools/Community Vocational Training Program for the Handicapped

Description: In the Madison, Wisconsin Public Schools a full range of effective strategies are used to prepare students with severe and multiple handicaps to live and work in their home communities. These strategies include: integration of the classes in the regular schools, functional, community-referenced curriculum, integrated vocational placements, program support for teachers and other staff, and administrative leadership.

The Madison school district has a zero reject policy, that is, all children are served by the regular public school. The high school curriculum is divided into four domains: domestic (e.g., house cleaning, cooking), vocational, recreation/leisure, and community functioning (e.g., how to use public transportation). The Madison school system has developed 31 job sites at such places as factories, hospitals, and motels. Students are first placed in community job sites during their middle years. Their approach is to rotate students through a large number of vocational training sites. At the high school level, nearly everyone in the program has a community job placement. Also on staff is a "transition specialist" who helps place graduates of the high school program in regular jobs.

Contact: Mrs. Pat VanDeventer
Metropolitan Madison School District
545 West Dayton Street
Madison, Wisconsin 53703
608-266-6164

Reference: Taylor, 1982

Title: Philadelphia Urban Model Life Skills Program

Description: The SPI Urban Model Life Skills Project is the Philadelphia School District's vehicle for establishing a quality educational service system for severely handicapped students. In order to provide quality educational services, specific components must be in each classroom serving severely handicapped individuals. The program was developed in response to court orders in 1982 affecting the 550 handicapped classified as severely and profoundly impaired (SPI).

The urban model has five components: (1) in-service training, predominantly clinical and competency-based, for all teachers, aides and therapists; (2) use of standard life skills (including vocational) curriculum; (3) uniform classroom data collection systems; (4) high levels of instructional time with non-handicapped peers; and (5) parent training and involvement. In addition, the model uses a highly regarded management tool, a professional advisory group of eight respected educators from across the country to consult and work with model staff. The model can be visited by arrangement.

The program has the following advantages.

- Teachers receive substantial in-service training, including in-classroom training and Saturday workshops from faculty skilled in state-of-the-art practices.
- Teachers use an effective classroom data system.
- Individual education plans are developed with clear criteria and are monitored.
- Students are integrated into age-appropriate schools.
- Staff are supervised and programs are evaluated.
- Vocational education and placement opportunities occur in high school, skill center, and community setting.
- Parent involvement is an ongoing school-by-school process related to individual need.

Contact: Cynthia Jansen, Director
Division of Special Education
School District of Philadelphia
Philadelphia, Pennsylvania 19123
215-351-7218

Reference: Brinker and Thrope, 1984

Title: Project Ames

Description: This project, is designed to provide moderately and severely/profoundly mentally handicapped students with long-term experiences and activities that are necessary to develop skills to function as independently and as productively as possible in a variety of community, educational, domestic, and vocational environments. It emphasizes vocational training and placement strategies.

Curriculum strategies are based on four functional domains: community functioning, domestic living, vocational skills, and recreation/leisure. On the primary level, emphasis is placed on developmental skills and community functioning skills development. On the intermediate level, domestic living skill development is the major focus. On the senior level, vocational skill development is emphasized with the immediate goal being the placement of each school graduate into gainful employment.

The community-referenced, age-appropriate, vocationally aimed curriculum includes an objective, data-based evaluation system that provides initial, daily, and post assessment of each student's program, tracking of each student's progress in job placements, and overall program evaluation. Training and placement procedures have been developed that enable moderately and severely/profoundly mentally handicapped students to be placed in the continuum from the school's functional curriculum to full-time community employment and independence.

During the exploration phase of Project Ames, students 12 to 17 years of age work in the community at specific job sites for short periods of time. It cannot be assumed that moderately and severely/profoundly mentally handicapped students can spontaneously transfer training from the school workshop to a community placement, even though the job may be the same.

On-the-job training begins when the student is 18 years old. Each student continues in this phase of the program until his or her final year in school. Project Ames staff is committed to work at the employment site with the student in order to guarantee to employers job proficiency. As students become more adept at their jobs, assistance is gradually withdrawn. This is a necessary aspect of helping many mentally disabled individuals reach their full potential. The Ames business community has been assessed and evaluated regarding the potential manufacturing and processing companies that welcome Project Ames involvement. Those business firms that have semi-skilled work jobs and that are cooperative with the training efforts are used for on-the-job training sites.

Project Ames began in the Fall of 1979 under the joint planning, cooperation, and funding of the Iowa Department of Public Instruction, Division of Special Education and Special Needs, the Ames Community School District, and the Heartland Area Education Agency.

Contact: Michael Houselez, Principal
Willson-Beardshear School
Ames Community School District
Ames, Iowa 50010
515-233-1433

Reference: Weyman, 1981

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Title: Project COVE: Comprehensive Occupational Vocational Education

Description: Project COVE stresses career and vocational programming for all special needs students. The curricular activities (instruction, assessment, and counseling) that form the core of the Project COVE model are centered within a three-phase career development process. Each phase is a unique component stressing particular career and vocational objectives. The phases parallel the grades from 7 through 12, with each phase representing a grade range. In practice, these phases are designed to meet individual student needs and capabilities, regardless of actual grade levels. The themes of self-awareness, occupational awareness, and career decision making are addressed throughout the model which becomes increasingly more individualized as the student moves from general exploratory activities to specific job preparation.

The curriculum content is organized in such a fashion as to reflect clusters or groups of related occupations in the world of work. Project COVE's curricular activities are geared to three major career development themes. Self-awareness is stressed as students are given opportunities to learn about their personal interests and abilities as well as their limitations. Occupational awareness is enhanced as students are able to acquire information about the world of work. Career decision-making and planning occurs as students participate in the decision-making process regarding the careers they will explore, the career plans they will establish, and the employment settings in which they will work.

Three activities--instruction, assessment, and counseling--occur in all three phases of the project. The functions of these activities are overlapping in that the majority of contexts for any of them--teaching about a single career cluster or occupation, for example--can give students specific data, the opportunity to evaluate their interests or abilities in relation to the newly acquired data, and, finally, the chance to explore feelings about this knowledge.

This program ceased in June 1985. Various stages of the program may be available.

Contact: Arnold Marcus
Vocational Rehabilitation
Brookline High School Counselor
Brookline High School
115 Greenough Street
Brookline, Massachusetts 02146
617-734-1111 ext. 343

Reference: Lynch, Kiernan, & Stark, 1982

STUDENT DROPOUTS

Student Dropouts

Characteristics of Successful Practice

To counter the high number of dropouts, many school districts have instituted special programs aimed at keeping students in school. Elements of successful dropout programs include:

- procedures for early identification of potential dropouts
- identification of why students commonly drop out of school
- established school programs/strategies that meet the specific needs of dropouts
- options for those who want to return to school
- flexible programs that include several of the following strategies: individualized instruction; basic skills remediation; employment related activities; community-based learning; student support services; orientation of personal success; teacher, administrator, parent support; community/interagency collaboration; and high school credit for alternative courses.

A Discussion of the Literature

After a decline in the dropout rate in the first 70 years of the century, the rate is rising and is approximately 25-30 percent nationally. The personal and societal cost of leaving school before graduation is high. Dropping out of school often results in a higher unemployment rate and lower lifetime earnings, and some of these youth become alienated from society as well.

Dropouts are more often unemployed, on welfare, or in prison than those who have graduated from high school, thus, the cost to society is far greater than it would be in providing education to this group (Jones, 1977).

Demographic trends show an increase in the dropout-prone student population. There are more minority, impoverished, and non-English speaking pupils than ever before, especially in urban schools. If the historical trends of school attendance for these populations continue, there will be more dropouts (Neill, 1979; Camp, 1980).

Dropouts represent a wide range of youth -- simple explanations of who drops out of school are difficult, if not impossible, to establish. The literature suggests a large number of characteristics that result in the profile of a dropout including poor attendance, behavior problems, achievement deficits, parents who did not graduate from high school, negative attitudes toward school, above or below average intelligence, etc.

Although successful programs for potential or actual dropouts vary greatly in scope and content, they do have common characteristics. An investigation of the literature on dropout programs shows that effective programs have several of the following characteristics: individualized instruction, basic skills remediation, employment related activities, community-based learning, student support services (e.g., counseling), orientation of personal success (i.e., short-term goals that are reachable, immediate feedback on performance, and positive reinforcement), teacher, administrator, and parent support, community/interagency collaboration, and high school credit for alternative courses (Maryland State Department of Education, 1981). Effective programs may involve tutoring and counseling for students in regular school programs or alternative education within the school or another community agency.

Descriptions of Exemplary Practices and Programs

Descriptions of successful programs for dropouts are included on the following pages.

Title: Diversified Educational Experiences Program (DEEP)

Description: The major goal of Project DEEP is to develop an instructional process for secondary school classrooms that allows instructors to create an academic environment emphasizing success for every learner while decreasing learner hostility to educational institutions.

DEEP offers students and instructors a method of organizing and managing an academic classroom that differs from the usual classroom model. Students in the DEEP classroom identify needs, formulate objectives, develop tasks based upon these objectives, present group and individual projects based upon fulfillment of objectives, receive teacher debriefing following presentation of the projects, and participate in their own evaluations. DEEP offers learners in academic subjects alternative ways to create, gather, develop, and display information. Extensive use is made of electronic and nonelectronic media. The role of the teacher is that of advisor, consultant, and learning-systems manager. The classroom environment is casual, open, trusting, and task-oriented. A workshop atmosphere exists. Community resources are utilized.

The DEEP classroom is highly structured, but the structure is not the same as in the typical academic classroom. Teachers who demonstrate the ability and desire to change their methods of instruction are trained in the use of these new management techniques. The teachers become learning facilitators, and the conflict-management process is based on human relations and peer group interaction as well as on teacher-student interaction. Once the training has been accomplished, students can be enrolled in the program as part of the normal scheduling procedure. The project provides management charts and materials along with evaluation procedures.

DEEP students had a 30 percent lower incidence of absenteeism than non-DEEP classes. DEEP students showed statistically significant gains in attitudes of affection, respect, and the value of knowledge as measured by the Risk-Taking-Attitudes-Values Inventory. Ninety-eight percent of students completing DEEP classes later graduated. Eighty-five percent of students enrolled in DEEP classes completed at least six academically sound projects per DEEP class. This project has been supported by the National Diffusion Network (NDN). It has been used with disruptive students as well as dropouts.

Contact: Jane Connett, Director
Project DEEP
Wichita Public Schools
640 N. Emporia
Wichita, Kansas 67214
316-268-7801

Reference: Far West Laboratory, 1983

Title: Educational Services for Schoolage Parents (ESSP)

Description: With its program at the Family Learning Center (FLC), the New Brunswick, New Jersey Board of Education is addressing some well-known teenage pregnancy problems. These include poor academic motivation and achievement and a significantly higher infant mortality rate and lower birth weight than are found in the babies of any other age group. The FLC provides small classes with highly motivated teachers and emphasizes satisfactory academic achievement, maternal and child health, and nutrition. While a pregnant student may remain in the regular school setting, she is encouraged to transfer to the FLC to continue her regular subjects there. In addition, she takes Family Life Education, which includes nutrition, planning and preparation of lunch, sewing and consumer education, and health. Areas covered in the health course include pre- and postnatal care of herself and her baby, the study of human reproduction, the labor and birth process, and birth-control options. She is assisted in reaching appropriate social agencies, and informal rap sessions with the head teacher and the guidance counselor are encouraged. When the student enters the program, the nurse contacts her obstetrician, checks to see that her records are complete, follows her progress, and sees that regular appointments are kept. There are periodic tours of local hospital maternity facilities. A head teacher coordinates the program under the direction of the Director of Pupil Personnel. Two full-time and four part-time teachers plus a part-time nurse and a part-time guidance counselor complete the FLC staff. After delivery and a two-week maternity leave, a student may continue her classes at the FLC for six weeks. This period of adjustment facilitates her introduction to the double role of mother/student and encourages her to complete her education.

The program has greatly decreased dropout rates of pregnant students and improved birth weight of their babies. From 1969-73, only 19 of 177 pregnant girls dropped out of school, compared with a 100 percent dropout rate prior to the program. The program is supported by the National Diffusion Network (NDN).

Contact: Dr. W. Davis, Director
Public Personnel Services
Lincoln School
66 Bartlett Street
New Brunswick, New Jersey 08901
201-745-5166, -5167, or -5169

Dorothy Aronowitz, Head Teacher
Family Learning Center
225 Comstock Street
New Brunswick, New Jersey 08901
201-745-5168

Reference: Far West Laboratory, 1983

Title: Focus Dissemination Project

Description: Focus provides an alternative education plan for students who have been identified as disaffected, showing a lack of motivation, lack of confidence, and low self-esteem. The program effects responsible institutional change and positive student attitude and performance by helping students learn responsibility to self, school, and society. Through a group counseling experience, the peer group is guided to deal with the problems causing disaffection.

Focus is a "school within a school" for secondary students who are not achieving or functioning in a way beneficial to themselves and/or those around them. The Focus program seeks to reduce student disaffection with school and learning, to improve each student's grasp of basic skills, to build a classroom culture that demonstrates the caring principle, to enhance each student's ability to relate effectively with peers and adults, and to give each student a reason to be optimistic about the future.

Focus is a highly structured program offering courses in English, social studies, math, and work experience. Instruction in Focus classes is based on ability and need. Curriculum materials are modified to meet the student's level of skill development and are presented in relation to survival beyond graduation. Students are actively involved in the selection, modification, and evaluation of these materials. Focus students take such classes as science, physical education, health, and electives in the regular school program.

All Focus students are involved in a group counseling experience called Family. Each Family consists of eight to ten students and one teacher who meet together one hour daily throughout the year. Family attempts to help the student develop feelings of caring, self-worth, and concern for others. It includes examination of one's own behavior in relation to the reactions of others within an atmosphere of positive support from the group.

A three-year evaluation (done at the original site) demonstrated that Focus improved student attitudes toward school, enhanced self-concept, increased academic achievement, and decreased disciplinary referrals, school suspensions, and absenteeism. Evaluation available on request. Focus is an approved program of the National Diffusion Network (NDN).

Contact: Don May
Focus Dissemination Project
Human Resource Associates, Inc.
755 Hiway 55 W.
P.O. Box 303
Hastings, Minnesota 55033
612-437-3976

Reference: Far West Laboratory, 1983

Title: Intercept: A Positive Alternative to Pupil Suspensions,
Truancy, and Dropouts

Description: Project Intercept provides preservice/in-service training to deal with adolescents who have shown chronic disruptive, failing, and truant behavior, and to address such problems before these difficulties fully develop. A pre-service/in-service training program offers teachers training in four areas.

All staff in the program are taught effective discipline procedures, classroom management techniques, and instructional skills. A peer consulting team is developed for group critique and support.

Management skills for establishing an alternative academic program for potential dropouts are also taught. Three programs developed by Project Intercept are COPE, Learning Center, and the Learning Cluster. In the first two programs, targeted students are placed in self-contained classes for two-thirds of the day, and may take electives or attend vocational training programs during the remainder of the day. The Learning Cluster offers a preventive treatment program to ninth-grade students where one-quarter of the day is spent in English and social studies.

Teachers also receive training in group counseling; students who participate in this component learn to demonstrate more appropriate interpersonal skills and improve self-concept. Family intervention and parent-training skills are taught to staff who are responsible for parent contact. This component reinforces changes taking place at school and helps parents deal more effectively with all of their children.

Statistically, the project has demonstrated that of the identified high-risk dropout-prone students, more will remain in school and improve their attendance and grades when in the alternative programs than those not in the program. In addition, the overall suspension rate at the high school has dropped significantly. This program can be used with disruptive students as well as dropouts. It is a National Diffusion Network (NDN) program.

Contact: Dr. Richard Maurer, Director
Ann M. Dorner Middle school
Van Courtland Place
Ossining, New York 10562
914-762-5740

Reference: Far West Laboratory, 1983

Title: Milwaukee Journey House Program

Description: Milwaukee, Wisconsin's Journey House is an alternative educational program and is unaffiliated with the public schools. Established in 1982 as a cooperative effort between Journey House, an inner-city community center and a local technical college, it serves youth ages 16-21 who have not completed high school.

Each new participant is interviewed upon entrance to the program. The points below are emphasized.

- No matter what their previous record, this program is an opportunity for a person to catch up on basic academic skills.
- The initial assessment procedure is not grade-correlated, but rather diagnostic, with tests in mathematics, reading, and basic writing skills to locate specific deficiencies and provide information for planning clear-cut, skill-oriented goals.
- Participants are allowed, space permitting, to select one of the three class periods that best suits them--mornings, afternoons, or evenings.

After completion of the three diagnostic tests, staff members write up a set of long-range individual goals. These goals are broken down into weekly and daily objectives. Classes are small and the academic curriculum for each participant is dependent upon individual reasons for entering the program and is aimed at helping the individual gain the General Education Development (G.E.D.) exams for high school equivalency degree. Child care is provided.

Contact: Tom Williams, Director
Journey House
109 South 16th Street
Milwaukee, Wisconsin 53204
414-647-0548

Reference: Harris, Hedmen, Horning, 1983

WRITING INSTRUCTION - K-12

Writing Instruction - K-12.

Characteristics of Successful Practice

An effective program in writing skills (K-12) has the following characteristics:

The teaching and learning process.

- Writing is defined as a process; which has three stages: prewriting, writing, and editing.
- There is evidence that knowledge of current theory and research in writing has been sought and applied in developing the writing program.
- Writing instruction is an important part of an integrated English language arts curriculum.
- Writing is called for in other subject matters across the curriculum.
- The subject matter of writing has its richest source in the students' personal, social, and academic interests and experiences.
- Students write in many forms (e.g., essays, notes, summaries, poems, letters, stories, reports, scripts, journals).
- Students write for a variety of audiences (e.g., self, classmates, the community, teachers) to learn that approaches vary as audiences vary.
- Students write for a wide range of purposes (e.g., to inform, to persuade, to express the self, to explore, to clarify thinking).
- Class time is devoted to all aspects of the writing process: generating ideas, drafting, revising, and editing.
- All students receive instruction in both: developing and expressing ideas, and using the conventions of edited American English.
- Students receive constructive responses, from teachers and from others, at various stages in the writing process.
- Evaluation of students writing growth is based on complete pieces of writing; reflects informed judgments about clarity, content, and grammar; includes regular responses, periodic assessment to individual pieces of student writing, and measures growth over a period of time.

Support for writing instruction.

- Teachers receive continuing education reflecting current knowledge about the teaching of writing.
- Parents and community groups are informed about the writing program and about ways that they can support it.

- School and class schedules provide sufficient time to assure that the writing process is thoroughly pursued.
- Teachers and students have access to and make regular use of a wide range of resources (e.g., library services, media, teaching materials) for support of the writing program.

Evaluation of the writing program.

- Evaluation of the writing program focuses on pre- and post-program sampling of complete pieces of writing, utilizing a recognized procedure (e.g., ETS holistic rating, the Diederich scale, primary trait scoring) to arrive at reliable judgments about the quality of the program.
- Evaluation of the program also includes: assessment of a sample of student attitudes; gathering of pertinent quantitative data (frequency of student writing, time devoted to writing activity); and observational data (evidence of pre-writing activities, class anthologies, writing folders, and student writing displays).

A Discussion of the Literature

At a time of growing concern for the quality of writing in the society, it is important to take the most effective approaches to quality in school writing programs. The National Council of Teachers of English (NCTE) (College English, 1979) developed program standards in an effort to assist states and school districts in establishing comprehensive literacy plans. They urge study of these standards as a means of insuring that plans attend not only to effective practice within the classroom but also to the environment of support for writing instruction throughout the school and the community. If effective instruction in writing is to be achieved, all the standards need to be studied and provided for in shaping a comprehensive writing program (K-12).

Planners should begin with an adequate conception of what writing is. To serve this purpose, the NCTE offers the following operational definition of writing:

"Writing is the process of selecting, combining, arranging, and developing ideas in effective sentences, paragraphs, and, often, longer units of discourse. The process requires the writer to cope with a number of variables: method of development (narrating, explaining, describing, reporting, and persuading); tone (from very personal to quite formal); form (from a limerick to a formal letter to a long research report); purpose (from discovering and expressing personal feelings and values to conducting the impersonal "business" of everyday life); possible audiences (oneself, classmates, a teacher, "the world"). Learning to write and to write increasingly well involves developing skill and sensitivity in selecting from and combining these variables to shape particular messages. It also involves learning to conform to conventions of the printed language, appropriate to the age of the

writer and to the form, purpose, and tone of the message. Writing can be a method of self-discovery, of finding out what we believe, know, and cannot find words or circumstances to say to others. Writing can be a deeply personal act of shaping our perception of the world and our relationships to people and things in that world. Thus, writing serves both public and personal needs of students, and it warrants the full, generous, and continuing effort of all teachers." (College English, 1979).

Finally, Smith (Smith, 1981) believes that the writer, not the act of writing itself, should be the focal point. Thus creating experiences and exploring ideas are perhaps the major functions of writing.

Descriptions of Exemplary Practices and Programs

Several descriptions of promising programs for writing instruction follow.

Title: Academic Improvement Through Language Experience (K-12)

Description: This is an individualized program to improve communication skills utilizing the language experience approach. Public and non-public school classroom teachers refer low-achieving students to the Title I resource room for individual assessment. Following the educational assessment, the resource teacher selects those students in the greatest need. A Personalized Performance Plan is developed that considers the area of deficiency, the student's learning style, and the instructional techniques to be followed in correcting the deficiency. The plan is flexible and can be modified as the needs of the student change. The language experience approach to instruction is utilized. Instruction follows the assumption that students can speak about that which they have experienced, write about that which they have spoken, and read about that which they have written. A teacher and two aides serve each resource room. Instruction is individualized and takes place in small groups. This project serves approximately 1,200 students during the school year. Intensive in-service and parent participation are essential components of this program.

Target schools are established by Chapter Title I low-income guidelines. Students served are selected from those scoring in the lowest quartile on standardized tests. Kindergarten students are served by referral. Students evaluated are from low-income urban schools. The JDRP validation is based upon positive results on the Peabody Picture Vocabulary Test and the Peabody Individual Achievement Test. Recent results on the PPVT, PIAT, and Gates-MacGinitie in grades K-10 show an average growth in excess of 1.5 months per month in the program. This is a non-funded Developer/Demonstrator project.

Awareness materials are available at no cost. Visitors are welcome by appointment. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated). Training is provided at project site (adopter pays only its own ~~sets~~ costs). Training is also conducted at adopter site (costs to be negotiated).

Contact: Thomas Zuhke, Director
Department of Federal Projects
Kenosha Unified School District
625 52nd Street
Kenosha, Wisconsin 53141
414-656-6378

Reference: Far West Laboratory, 1983

Title: Ferguson-Florissant Writing Project

Description: This project is an in-service program to help teachers increase student writing achievement. The purpose of this staff training program is to change the methodology of teaching writing. Each day of the three-week in-service session is divided into two parts. The morning session surveys current writing instruction methodology; in the afternoon, teachers develop their skills as writers. While a two-stage process is usually employed in traditional writing instruction (composing and evaluating), a four-stage writing process is employed in the writing project -- prewriting, composing, revising, and evaluating. Revision takes place in small critique groups.

After the training was completed, teachers reported spending 10 hours each month on personal writing, whereas before training they had spent no time on this activity. They used the four-stage process with their students as well. While grammar and mechanics were typically taught separately from writing, project teachers combined grammar and mechanics with writing. They also reported an increase in prewriting activities such as free writing, focused writing, and non-stop writing. This increases the lag time between assignment and initiation of student writing. Students also use critiquing groups for the revision stage. Trained teachers meet to share strategies. Project staff participate in training, organize meetings to discuss progress, and demonstrate model lessons.

This project is similar to the New Jersey Writing Project, however, the training sessions provide for collegiality. The emphasis of the project is on districtwide changes in writing instruction.

Based on an assessment of three posttests in paragraph writing, project students at elementary through senior high levels demonstrated higher gains in writing skills than control students after one and two years of instruction. Project students increased from a pretest score of 16.76 to a posttest score of 19.19 in the first year, and to 22.61 by the end of the second year.

This is an NDN-supported project. Adapters must attend a five-day leadership training session which is held twice annually (November and April) in St. Louis, or staff from the project will do on-site five-day training by arrangement.

Awareness materials, a curriculum guide "Double-Helix" (elementary edition \$12.00 and secondary edition \$18.50), and training videotapes are available.

Contact: Dr. Mary Louise Hawkins, Project Director
Ferguson-Florissant Writing Project
Ferguson Reorganized School District R-2
1005 Waterford Drive
Florissant, Missouri 63033
314-595-2369

Reference: Far West Laboratory, 1983

**Title: Individualized Language Arts: Diagnosis, Prescription, and Evaluation
(1-12)**

Description: This project combines a language-experience approach with techniques derived from applied modern linguistic theory to enhance skills in written composition. Several times a year, the teacher evaluates writing samples composed by students on self-selected topics. Using criteria common to nearly all language arts programs, the teacher is then able to assign priorities to the needs of the whole class, groups of students, and individual youngsters. For each objective stemming from this diagnosis, a teacher's resource manual prescribes a variety of writing or rewriting techniques for all content areas involving writing. Motivation for writing is strengthened by a "communication spiral" that links composition to the other language arts and to real-life experience. A record-keeping system permits students, teachers, administrators, and parents to observe growth in writing proficiency from month to month and grade to grade. The program can be combined readily with existing language arts curricula and objectives.

Since 1971, evaluations utilizing holistic or criterion-referenced designs with writing samples from students, grades 1-12, in a variety of settings (urban, suburban, and rural) consistently show significant gains in vocabulary, sentence structure, organization, mechanics, and grammar for students in ILA classes. This is an NDN-funded Developer/Demonstrator project.

Contact: Jeanette Alder, Project Director
Weehawken High School
Liberty Place
Weehawken, New Jersey 07087
201-865-1506

Reference: Far West Laboratory, 1981

Title: The New Jersey Writing Project (7-12)

Description: The New Jersey Writing Project is a teacher-training program that improves student writing. It is a program based on a thorough knowledge of the composing process. This project is predicated on the following assumptions: writing is a process and a mode of learning; teachers of writing should write; teachers teaching other teachers accomplishes efficient curriculum change; theory about and assessment of writing should enhance classroom practices.

The program involves three stages: teacher training, implementation and staff development, and assessment. The teacher training stage is a three-week summer institute for teachers from multiple districts in the same geographic region. Each day of the training program is divided into a writing/sharing morning session and a theory presentation in the afternoon. The second stage is a two-part program. First, returning teacher consultants introduce writing as a process into their classrooms. Within the confines of the regular English period each teacher provides time for students to write in class. All students are instructed in the process of effective editorial feedback. Teachers do not have to edit each student's paper because students do that for themselves and for others. Second, in addition to implementation in the classroom, the returning teachers begin staff development programs suited to the unique needs of district curricula. The third stage involves the development and use of assessment instruments and procedures. This evaluative phase encompasses the following components: students' writing samples; training for teachers in holistic scoring; and teacher and student writing attitude surveys.

Writing samples obtained in October and May from 1,400 students in eight treatment districts and seven control districts representing urban, suburban, and rural New Jersey were scored using a holistic method developed by Educational Testing Service. Regression analysis, adjusting posttest scores for pretest scores, indicating that the difference between treatment and control groups was highly significant ($p .001$), amounting to 45.5 percent of the standard deviation of the posttest distribution. The program has been adopted in 21 states.

Awareness materials are available at no cost. Visitors are welcome at project site and additional demonstration sites in home state by appointment. Project staff are available to attend out-of-state awareness meetings (costs to be negotiated). Training is provided upon request and through negotiation for costs. NDN validated and supported.

Contact: Dr. Linda Waitkus Halstead, Project Director
New Jersey Writing Project
South Brunswick Public Schools
Monmouth, New Jersey 08852
201-297-7800

Reference: Far West Laboratory, 1981

Title: Project W.R.I.T.&E: Writing is Thorough and Efficient

Description: Project W.R.I.T.&E is a K-12 writing program designed to improve students' writing competency and fluency in composing by using a process approach to writing that is developmentally tailored to students' needs.

Adopters must plan to attend staff development activities directed by Project W.R.I.T.&E staff, at which time a system for ongoing monitoring and support activities will be provided. Additional staff are not necessary for replicating the project but retraining of current staff is necessary. The project offers a three-day workshop designed to prepare teachers for using project teaching techniques. Teachers planning to implement Project W.R.I.T.&E should attend the workshop in the summer or school year prior to implementation.

Based upon the results of three experimental studies across different grade levels (3, 4, 5, 7 and 11), students receiving instruction with the Project W.R.I.T.&E curriculum significantly out-performed (p .01) comparable control group students in writing ability, as measured by the Holistic Writing Assessment Procedure.

Project staff are available to conduct workshops as well as awareness sessions either at the project site or elsewhere. Visitors are welcome to visit the project by appointment. Project staff are also available to provide technical assistance in conducting a writing needs assessment and in holistic scoring of writing samples.

**Contact: Mr. Walter J. Vail, Project Director
or Ms. Patricia A. Rubin, Project Coordinator
Project W.R.I.T.&E
Glassboro Board of Education
North Delsea Drive
Glassboro, New Jersey 08028
609-881-2290**

Reference: Far West Laboratory, 1983

Youth Employment - Vocational Education

Characteristics of Successful Practice

Exemplary vocational education programs that increase youth employability:

- teach specific job-related competencies (skills and behaviors)
- include pre-employment, basic educational, and occupational specific skills
- train students for "real" jobs based on current and projected local labor market needs
- provide work-experience in the community
- maintain a close relationship between the school and the business community
- coordinate school training resources with other resources or programs in the private or public sector
- help students explore/train for careers based on interest and aptitude (does not limit students by sex, ethnic background, etc.)
- help students make the transition from school to work
- make use of the research on educational effectiveness.

Discussion of the Literature

Public schools are receiving increased pressure to better prepare students for the world of work. This is due in a large part to (1) the high unemployment rate for youth (especially for disadvantaged and minority youth) and (2) the complaints of employers who maintain that many students lack the basic educational and job-specific skills necessary for entry level employment. Evidence suggests that while many of today's youth have difficulty in making the transition from school to work and that successful vocational programs can make the difference in youth unemployment. The problem appears to be that some vocational programs do not meet standards of excellence and others do not directly aid students in finding jobs (Bottoms & Copa, 1983; Ginzberg, 1980). Not enough students have access to quality programs.

Good vocational programs are built around specific job-related competencies (Chalupsky, 1981). They provide instruction in the basic skills as well as a vocational area (Campbell-Thane, et al., 1983). Close cooperation with area employers is a key feature of such programs. Local business representatives advise educators in the planning and updating of vocational programs and offer sites for work-experience. They also give valuable feedback on how well vocational students perform on the job (Brown & Scherer, 1984).

Exemplary vocational programs make use of educational research findings identifying factors for the improvement of instruction (Owens & Crohn, 1983). They directly aid students in making the transition from school to the workplace. Graduates from successful programs have a high placement rate.

Descriptions of Exemplary Programs and Practices

Descriptions of successful youth employability programs follow.

Title: Alternative II

Description: Alternative II, a Vineland, New Jersey, Public Schools program, is designed to meet the needs of those students, who have either verbally or through behavioral patterns, expressed a general disinterest in school. Often lacking both self-esteem and motivation, these youngsters are potential dropouts. Many of these disadvantaged students are alienated by traditional academic pursuits and methods. Their preoccupation with earning money, which is often the expressed reason for leaving school, can and should be the key to retaining them. It is believed that a primary means of establishing this retention, is an alternative academic/vocational program which will allow them to perceive the relationship between their academic/vocational studies and the direct effect on their earning ability.

This program attempts to incorporate principles which conventional vocational education programs often lack, including:

- teachers with an interest in vocational education and necessary time to provide the extensive guidance needed to motivate the disadvantaged student population to remain in school
- a direct relationship between the academic program and the skills which are required for employment
- the facilities, equipment, and tests to perform a pre-vocational evaluation and to develop an individual program
- educators with experience in teaching functional competencies and life skills training to disadvantaged learners
- a philosophy of assistance, to guide the disadvantaged student through graduation, even when the student is inclined to drop out of school.

This program affords educators a new alternative to cope with the school dropout problem. It is designed to offer those who are about to drop out of school a viable, tailored alternative in order to encourage the student to remain in school and to obtain his/her diploma. In this regard, the very unique assessment of the student provides the educator with the most comprehensive evaluation of the student yet possible, in order to customize the program to the specific needs of the student through an individualized vocational plan. The counseling component of this program provides for teacher-counseling of each student so that he/she will not become discouraged or take the option of dropping out of school, but rather choose to remain in their individual vocational program through graduation.

Contact: Dr. Charles F. Valentine
Assistant Superintendent
Vineland Public Schools
106 West Landis Avenue
Vineland, New Jersey 08360
609-692-3798 ext. 291-292

Reference: Grumelli, 1982

Title: Careers in the Classroom

Description: Careers in the Classroom serves youth in St. Louis high schools. It began operation in 1968 with the support of the Ralston Purina Company, but now involves five or six other local corporations and agencies. The objectives of the program are to provide on-the-job training to seniors and a setting conducive to serious academic study. The intended outcome is students who are well-versed in the basic skills needed for employment -- who can read, write, communicate, and calculate; who are knowledgeable about the expectations of a real job; and who have specific skills to market.

The distinctive feature of this model is that participants receive both academic and on-the-job training at the business location. Each morning they study business English, social studies, and business practice in classrooms provided by the firm. Public school teachers, generally working in pairs and dividing the academic and business courses, provide the instruction. The classes are small and individual attention is emphasized. In the afternoon, students report to training stations in the company, where they learn skills in areas such as data processing, clerical work, auto mechanics, and laboratory analysis. Although the work portion of the day is closely monitored by supervisors from the business, training is given precedence over immediate productivity.

A student participates in four sessions, each lasting 10 weeks. The sessions are designed to help students develop along a gradual progression. At the completion of every ten-week stretch, students receive evaluations from both their classroom teachers and their work supervisors, and they also have an opportunity to evaluate the supervisors. Students are paid minimum wages while in the program.

Program effectiveness is shown by:

- the overall post-program success rate, over a 12-year period, approaches 100 percent, with an annual job placement rate of 75-80 percent and a continuing education rate of 15-20 percent
- the dropout rate has been reduced to near zero
- students have shown improvement in their grades and attendance
- attendance is encouraged by requirement that students attend school in order to work.

The program is directed by a full-time employee of the school district and by representatives from each participating firm. The schools also provide teachers for each site where Careers in the Classroom is operating. Work supervisors are recruited from the firms. Visitations to the program can be arranged.

Contact: Peter Rein, Manager
Work/Study/Cooperative Education Programs
O'Fallon Technical Center
St. Louis Public Schools
5101 McRee Avenue
St. Louis, Missouri 63110
314-772-6100

Mablean Perkins
Equal Opportunity Affairs
Ralston-Purina Company
Checkerboard Square
St. Louis, Missouri 63188
314-982-3257

Reference: Public/Private Ventures, n.d.

Title: Jobs for Youth, Inc. (JFY)

Description: Jobs for Youth began in 1968 in New York and was replicated in Boston in 1976 and in Chicago in 1978. With some minor variations, each program shares several basic features. All youth applicants attend an orientation session during which they complete brief tests of verbal and mathematical skills. Subsequently, youth have several meetings with a counselor to discuss their expectations of the world of work and behavior for getting and holding a job. Youth who need to improve functional skills receive individualized instruction using competency-based learning modules, grounded in basic skills, life skills and/or job related skills. In some JFY programs, long-term competency-based basic skills and GED preparation programs are also offered.

After about three weeks, most youth are ready, in the view of program staff, to gain and hold a job, and job placement service begins. Job orders continually come into JFY, and job-ready youth are referred to appropriate openings. Typically, jobs are entry-level ones in small private businesses. Over time, JFY builds a large number of employers who rely on this program to solve entry-level staff needs. Once a job is secured, the counselor maintains ongoing contact with the youth, and employer-services staff (responsible for finding the jobs) do the same with employers. This communication is aimed at "nipping problems in the bud." Close contact is called for between counselors and employer-services staff. No stipends are paid to youth.

Some indications of success include the following:

- between 4 and 6 of every 10 youths are placed in private sector jobs
- cost-per-youth job placement is under \$1,000, which compares favorably with analogous programs
- the program works equally well for both younger (under 19) and older youth
- youth "pay back" the cost of the program, in terms of increased earnings over a comparison group, in about a year.

The three JFY programs operate independently. Each is managed by an executive director who is responsible to a local board of directors. The board oversees all program and fiscal operations and is composed of leaders from the corporate and public sectors. Each JFY staff consists of about 10 employees who perform specialized functions: job counseling, education, and job development. In addition to the three JFY programs serving youth in New York, Boston, and Chicago, the JFY National Technical Assistance Office, located in Boston, offers consulting and training to organizations throughout the country. Private sector job development, competency-based education, serving undermotivated youth, and supervising youth private sector jobs are some of the technical assistance areas which are frequently addressed.

Contact: David Rosen, Associate Executive Director
Robert Zelnick, Director of Technical Assistance
Jobs for Youth - Boston, Inc.
312 Stuart Street
Boston, Massachusetts 02116
617-338-0815

Reference: Public/Private Ventures, n.d.

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Title: Overbrook Regional Senior High School Building Trades Program

Description: The Overbrook Regional Senior High School Building Trades Program of Pine Hill, New Jersey, is appropriate for disadvantaged students seeking a career in the construction trades but lacking in sufficient communication and computation skills.

The goals of the program are:

- to provide job entry skills in carpentry and related building trades occupations
- to provide opportunities to develop safe work habits
- to develop the attitudes necessary for success in employment.

The program is a educational learning experience which provides these students with the opportunity to attain entry level job skills and to develop competency in trade related math and communications. It also stresses the importance of safe work habits and proper work attitudes. At the request of church and other non-profit organizations, the students participating in this program often embark upon community-based projects.

In addition to the state report, a follow-up study is conducted annually. Data indicate that the majority of this program's graduates have found employment in building trade occupations. They tend to remain in the trade, and many former students have become successfully self-employed business people.

The program and the house that students built can be visited by appointment.

**Contact: Daniel Borelli, Vocational Director
Overbrook Regional Senior High School
Turnerville Road
Pine Hill, New Jersey 08021
609-767-8000**

Reference: Grumelli, 1982

Title: The Philadelphia High School Academies

Description: The Philadelphia High School Academies Program was initiated in 1970 by the Philadelphia Urban Coalition, on behalf of the Philadelphia Board of Education, in order to provide disadvantaged, inner-city high school students with marketable job skills. There are four academies operating in seven public high schools. The academies, in order of their establishment, include the Academy of Applied Electrical Science, the Philadelphia Business Academy, the Academy of Applied Automotive and Mechanical Science, and the Health Care Academy. In 1983, all four academies joined together to form the Philadelphia High School Academy Association, Inc.

Functioning as "schools within schools," the academies provide vocational education and career development by relating the study of basic skills and social studies to the vocational demands associated with the chosen career path. The program combines a carefully prescribed process for selecting academic courses, counseling and personal attention, and follow-up by teachers, as well as actual work experience and job skills. Program effectiveness is shown by:

- average daily attendance which is approximately 90 percent, as compared with 60 percent for the schools within which the academies are located
- the dropout rate is near zero, as compared to a system-wide rate of close to 50 percent
- 72 percent of academy graduates find jobs, pursue higher education, or enter the military.

The High School Academy Association is an incorporated umbrella organization that coordinates the activities and operations of the various academies. The Association is governed by a 21-member board of directors, which includes the chief executive officers of major sponsoring corporations, the Superintendent of Schools, the Executive Director of Career Education for the Philadelphia School District, and other community leaders. The four individual academies are also incorporated, non-profit, tax-exempt organizations. Each is governed by its own board of directors, drawn often from local corporations' departments of social responsibility. Academy teachers are school district employees and are therefore directly accountable to their department heads and principals.

Contact: Hendrik B. Koning, Program Director
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101
215-841-5568

Reference: Research for Better Schools, 1983

Title: Strategies and Techniques for Advancement in Reading (STAR)

Description: STAR is an intensive program devoted to achieving basic literacy in 16 to 21-year-old students who are reading at an elementary school level. About 30 percent of its students are certified as learning disabled. Located within High School Redirection, an alternative high school in New York City for students who have not succeeded in the city's larger comprehensive or vocational schools, STAR offers students individualized and flexible instruction. The average length of stay is one year, but some students remain as long as four years.

Students are assigned to one of four classrooms according to their performance on a series of tests. They spend at least five periods, and sometimes a full seven periods, in these rooms. The reading level in each classroom is relatively homogeneous. One teacher and two paraprofessionals work with each group, attempting to weave together a sequence of materials that fit the particular needs of the students. Four resource centers are available and are considered an integral part of the STAR program.

The philosophy running through STAR is eclectic; a variety of techniques are employed until progress is made. The program strives to integrate guidance and academic functions in every class in the conviction that, for these students, learning how to read is not simply a cognitive challenge, but one that includes social and psychological factors. Additional barriers preventing students from staying in school and learning are addressed. For example, two day care centers located in High School Redirection made it possible for young mothers to return to school.

Program effectiveness is shown by:

- students progress in their reading ability at a rate of two to four grade levels per year
- retention rate is 70 percent higher than the High School remediation rate, and STAR deals with former truants
- Attendance rate exceeds the high school remediation average.

STAR is a school within a school, located inside High School Redirection, whose principal is responsible for overseeing the program. STAR is administered by a program coordinator. The staff includes eight teachers, four working in the classroom and four running resource centers, as well as five paraprofessionals.

Program can be visited by appointment.

Contact: Lynda Sarnoff, STAR Program
High School Redirection
226 Bristol Street
Brooklyn, New York 11212
718-498-2605

Reference: Public/Private Ventures, n.d.

Title: Success on the Move

Description: Success on the Move was formed in 1979 by Kaiser Aluminum, Oakland High School, and the School of Education at the University of California, Berkeley. Begun as a summer program for disadvantaged youth, the program has a special curriculum, developed through the collaboration of the three partners and designed to emphasize problem-solving skills, basic reading and math ability, and the linkage between school and work. Other important components of this program are paid work experience, teacher retaining, and a framework for ongoing planning and adjustment involving all the partners.

The students who participate in Success on the Move are primarily black, Hispanic, and Oriental and are either sophomores, juniors, or seniors at Oakland High School. Although originally only students who were experiencing difficulty in school were selected for the program, it includes a mixture of academic achievement levels. The program has also expanded to include not only the six-week summer session but several 15-week sessions during the September to June school year. The basic formula, however, remains intact: students dedicate mornings to academic pursuits -- social studies, math, English, and science -- and receive one period of pre-employment training before heading off to work sites in the afternoon to gain paid job experience.

The classes are taught by high school teachers provided by the Oakland school system. Doctoral students from Berkeley's School of Education assist the students by offering counseling and tutorial services. Team teaching and mastery-learning techniques are employed, and students have an opportunity to receive individualized instruction aimed at correcting remedial education needs.

Program effectiveness is shown by the following:

- dropout rates are negligible
- attendance, attitudes, and employability skills have increased markedly
- 75.5 percent of the students have achieved gains in math
- reading scores have jumped as many as six grade levels for some students
- among program participants, a higher percentage of students are choosing to enter engineering and other high technology fields than among inner-city youth in general.

The program is guided by a steering committee consisting of the Assistant Superintendent of Schools for Oakland, the Dean of the School of Education at Berkeley, administrators from Oakland High School, and representatives from Kaiser Aluminum. The committee was formed to promote the development of new initiatives, to help clear curriculum through the school board, and to refine the program model. The direct operations of the project are managed by a project director and a coordinator provided by Kaiser Aluminum. Oakland High School supplies three teachers, and the University makes available three Ph.D. students.

Contact: Sandra Dunn
Kaiser Aluminum and Chemical Corporation
300 Lakeside Drive
Oakland, California 94643
415-271-8916

Electra Price
Oakland High Schools
1025 Second Avenue
Oakland, California 94606
415-836-8283

Reference: Public/Private Ventures, n.d.

Title: Vocational Outreach Program of Middlesex County Vocational and Technical High School System

Description: The Vocational Outreach Program of East Brunswick, New Jersey, recognizes that many local school districts in Middlesex County lack the resources to provide disadvantaged students with a diversified selection of vocational education course offerings. The program is specifically designed to augment the local district offerings by bringing into these communities the equipment and expertise essential to a strong vocational education program. Utilizing mobile trailers, the Vocational Outreach Program goes directly to the local school district. The program is especially designed to meet the needs of students who are disadvantaged as a result of insufficient communication or computation skills and/or have difficulty in forming responsible relationships in a regular classroom environment. For many of these disadvantaged students, the Vocational Outreach Program will be their only opportunity to come into contact with vocational education.

The Vocational Outreach Program seeks to accomplish three principle objectives. They are:

- to develop within the local school districts of Middlesex County an awareness of vocational education
- to provide vocational education to local districts maintaining little or no internal capability for doing so themselves
- to demonstrate the positive effect vocational education has on students in general and in particular, disadvantaged students.

The Vocational Outreach Program is essentially a cooperative effort between local school districts in Middlesex County and the County Vocational and Technical High School located in East Brunswick. However, the program relies primarily on its ability to bring vocational education directly to the local district.

The Vocational Outreach Program strives to develop an awareness of vocational education in the disadvantaged student population of local county districts. In doing so the program attempts to provide enough of a vocational education experience to influence students to give secondary vocational education a try. Therefore, the program measures its level of success by the interest it generates in high school level vocational education. The program notes that in a time of decreasing enrollments, applications to the County Vocational and Technical High School remain high.

Contact: Joseph C. Colombo, Assistant Superintendent
Middlesex County Vocational & Technical High School
P.O. Box 220 - 112 Rues Lane
East Brunswick, New Jersey 08816
201-257-3300

Reference: Grumelli, 1982

III. THE MANAGEMENT OF PLANNED CHANGE AND SCHOOL IMPROVEMENT

In a time of rapid change and shrinking resources, responsible educators become more effective managers. They are proactive rather than reactive, planning desirable changes and employing relevant knowledge to bring about school improvement. In large school systems or complex urban districts, such behavior may be more difficult than in districts with greater resources and less environmental turbulence. However, effective management of planned change for school improvement does occur in urban districts -- especially when appropriate knowledge is put to use. While much of that knowledge is based on specific local experience, some is more general. This section of the Sourcebook summarizes general knowledge about the management of planned change. It discusses: the relevant professional literature, planning implementation, leadership for school improvement, strategies for school improvement, and staff development.

Understanding the Change Literature

Until the mid-1970s, most educators relied on experience and intuition to determine how to plan and implement programs designed to bring about school improvement. Since that time, more practitioners are using research to improve their schools. They have been most successful when the staff involved were familiar with the studies about planned change and made purposeful decisions in selecting and applying models and concepts most appropriate to their own situations. Central office staff designing school improvement programs should find the following summaries useful.

Models of Change

Research reviewed by Roberts (1978), describes six basic models of change.

- The linear model of four states -- research, development, diffusion, adoption (RDDA) -- was suggested by Brickell (1961) and refined by Clark and Guba (1967). It has been applied primarily in large-scale efforts, and assumes that practitioners are rational and passive.
- The social interaction model of five stages -- awareness, interest, evaluation, trial, adoption -- was designed by Rogers (1962) and refined by Rogers and Shoemaker (1971). It is based on the belief that "good" programs will readily be adopted if they are advocated by colleagues with credibility.
- The problem-solving model of six stages -- translation of a need, problem diagnosis, search and retrieval of "solutions," adaptation of the innovation, trial, evaluation -- was derived from the work of Lewin and NTL (1947) by Lippit, Watson, and Westley (1958). It assumes that change begins with recognition of a local need.
- The linkage model, as described by Bhola, 1965 and Havelock, 1969, is almost identical to the problem-solving model but assumes that a person outside the school or district facilitates the change by working collaboratively with practitioners to link research with practice.
- The organization development model of has four stages -- entry and contract setting, data collection, diagnosis (of the organization), action interventions -- was developed by the same groups as the problem-solving model, but is different in that it attempts to improve both affectiveness/productivity and the employees' quality of work life in a systematic, sustained way through the use of behavioral science concepts.
- The local process of change model has three stages, each with several components -- mobilization (problem definition, solution selection, generation of support, decision making about strategies, assignments, and resource allocations), implementation (mutual adaptation of the program and the organization), and institutionalization (integrated use of the program into the routine of the school) -- was described by Berman et al., (1975, 1977). The model reflects actual practice as reported in 29 case studies.

Perspectives of Change

It is apparent that models of change have evolved over time to take into account local differences and individual needs and to give equal attention to both the processes used and the programs/products adopted. Louis (1983) argues that there are three perspectives on change: (1) rational, which applies content knowledge logically and assumes that people are rational and reasonable; (2) political, which recognizes there are diverse sources of power

and influence and deals with pressures and interest groups; and (3) systemic, which looks at the structure and culture of systems in their entirety. The locus of change may be the individual(s), school(s), or larger group. Most change efforts have a rational perspective, focusing on changing individual behavior (e.g., providing information and training to teachers). Some recognize the influence of organizational norms and may focus on the school as a whole, perhaps including both rational and political perspectives. A few also acknowledge the interaction of parents and community with the school and the individuals in it, and design more systemic change strategies.

Educators develop and apply "theories in use" when they decide on a locus of change and advocate a particular perspective. A common "theory in use" is that individual teachers will be rational in adopting a new program. A more effective "theory in use" recognizes the political and systemic perspectives and the importance of change at the organizational level to support individual efforts.

Examples of Findings from Studies of Change

A district or school brings about improvement by a process of internal participation and support, using quality products or practices as the substance of the effort, and obtaining appropriate external support. Major studies of school improvement (Loucks & Crandall, 1982) present some findings around which there appears to be a strong consensus.

- Policies which combine in-person assistance with validated practice are most likely to result in change.
- A critical mass of supportive teachers (in each school) is important for implementation.
- Teachers should be actively involved in decision making.
- The principal's assistance in implementation is essential.
- A climate that is open, trusting, communicative, and supportive of change is conducive to school improvement.

- There are several phases of the change process experienced by individuals and schools: interventions (e.g., types of assistance, support, or training) should be keyed to those phases.

Phases of the Change Process

The reference "phases of change" is related to the work by Hall and others (e.g., Hall & Loucks, 1977) on the Concerns-Based Adoption Model (CBAM), which addresses the "stages of concern" that people go through when confronted with a new program. Following awareness, they experience concerns about new information, personal implications, management, consequences of use, collaboration/interaction with others using the program, and, finally, refocusing for improvement. Historically, educators tended to ignore personal and collaboration concerns, but Hall's research demonstrates that projects are more successful when such concerns are addressed in a timely fashion.

Variables Influencing Implementation

Overall, the change literature indicates that four groups of variables strongly influence successful implementation of an improvement effort: the "what," the "how," the "who," and the "who and what else." Referring to the work of Fullan and Pomfret (1977), Berman et al., (1977, Vol. 7), Paul (1977), and Charters and Jones (1975), Roberts (1978) defines the variables as follows.

- What? the innovation -- its source, nature, purpose, target audience, demand on resources, explicitness, and complexity.
- How? the planning/implementation process -- the nature and extent of training, assistance, support, and feedback.
- Who? the internal organization -- people's roles and responsibilities; the nature and extent of influence of such factors as commitment, support, climate, and resources; and the norms of communication and decision-making.
- Who and what else? external influences -- the nature and extent of influence of such factors as input from federal or state agencies, operating constraints and incentives, and socio-political complexities.

In recent years, schools, districts, and state education agencies (SEAs) have clarified their perspectives on change, developed their own definitions of school improvement (influenced by the reports on school effectiveness), and applied adapted models of change, and implementing their change with various degrees of purpose and intuition. Some of those experiences have been described in recent studies, and the findings from them appear elsewhere in this sourcebook.

Planning Implementation

The purpose of planning is to create a shared image for action acceptable to local school district administrators and staff of schools involved in implementation. Planning is influenced by the norms of schools and districts, and how they function as organizations.

Types of Systems and Their Influence

In bureaucratic systems, a rational perspective is likely to be held in which practitioners have clear objectives, decisions are based on "hard data," and authority is recognized (Sieber, 1972). Here, "goals are unambiguous... and...the means by which the goals may be achieved are understood and specifiable" (Hannaway & Sproul, 1979). In predictable situations, senior administrators hand down the rules and procedures that are to be applied, but such formalized means are not effective in dynamic situations.

In loosely-coupled systems (Weick, 1976), a "logic of confidence" replaces reliance on rules and procedures. Plans are based on cross-hierarchical philosophy and trust which permit flexibility in implementation.

Since school improvement is dynamic, and many programs adopted as solutions to local problems are not absolutely prescribed and predictable, even rational bureaucratic organizations (such as large urban school systems) need to build feedback and negotiation into their planning. The

"hyper-rationalization" of bureaucratic control is not useful since "the implementation of policy at the site level remains a task that, ideally, calls for adaptability and situational sensitivity" (Boyd & Crowson, 1981). Such flexibility is particularly important when a large-scale improvement project is planned, because the longer it takes to institutionalize a change, the more likely it is that goals will evolve, unintended outcomes will occur, and contingency planning will be needed.

Characteristics of Effective Planning

Quality planning leading to effective implementation is continuous or cyclical, so modifications can be made as needed. Through their research Kiser (1978) and (Roberts, 1978) agree on the characteristics of successful comprehensive planning.

- There is active participation by teachers, school-based administrators, and central office staff (representing the three "subsystems" of the LEA).
- A task force representing all three subsystems (and sharing leadership) directs the planning and implementation.
- Decisions and actions are shared across organizational levels.
- Goals are congruent (program focused) across subsystems, and a work plan and schedule for planning are followed.
- Tasks reflect a consumer-centered approach to a real local need, and task directives flow from the task force to subsystem members.
- Time and other resources are used effectively.
- Productivity is enhanced by systems analysis of problem areas, documentation, and development of staff capability (e.g., to help teachers equalize knowledge).
- Teachers have positive perceptions of the performance of the superintendent and assistant superintendent (their commitment, expertise, ability to resolve conflict, and use of appropriate planning techniques).
- Local educators collaborate with a knowledgeable technical advisor.

Four points are worth further clarification.

[First] is the involvement of implementors in the actual planning process.... The key is relevance. Everyone does not have to be involved in reaching consensus on every decision, but all must have a shared image of the total plan, and each must have the opportunity to influence decisions relating to actions that the person or group will have to carry out.

A second important point relates to goals or needs. A real local need should be addressed, with goals congruent between SEA and LEA and subsystems within the LEA. If there is incongruence, task avoidance and non-implementation will occur. For instance, the SEA may advocate that block grants be used to supplement a generic instructional improvement effort, while interest groups within the LEA may each advocate specific content areas.... Given this level of conflict, it is apparent that planners must be skilled in problem definition and consensus building....

The third point for consideration relates to expertise. If, as in Kiser's study, LEA administrators have the necessary expertise (knowledge and skill in planning techniques, etc.) there is no difficulty. If such expertise is lacking, or cannot be applied at the time, the LEA should seek help from an external agency....

The last key point relates to internal/external interaction. Effective communication and shared understanding are essential. Negotiation is preferable to compliance. The SEA should be prepared to provide technical assistance to planners -- not simply relating to fiscal allocations but to all aspects of the planning process. The LEA should ensure that the SEA understands local realities. Ideally, an on-going relationship should be established between state and local liaisons functioning as communication channels, and facilitating delivery of appropriate, timely technical assistance.

(Roberts & Smith, 1982, pp. 70-71)

Models of Planning

There are many models of planning used by educators, each with its own advantages and disadvantages (Miles, 1976 as illustrated in Table 1), some of which are so open (e.g., natural development) as to barely merit the classification. There are also many tools and techniques used in planning (such as force field analysis, or management information systems). Each LEA should use those techniques or models that seem most appropriate for the situation. All LEAs may want to ensure that they address the concepts suggested by Ackoff's (1977) model of strategic interactive planning:

Table 1
Models of Planning
(Miles, 1976)

Model	Character	Members	Future Orientation	Design	Adaptive-ness	Linkage: Planning/Implementation	Advantages
Imaginative	improvisation expediency	low expertise	indirect	vague	high	pragmatic	recognizes irritation that unanticipated comes are 100% like that means cannot be fully connected to goals
Operational	emergence from day-to-day activities of inhabitants	key operational staff	work into it, short time frame	specific at imple- mentation	high	one and the same	user need oriented energies, provides mutual successes
Learning	ingenious problem-solv- ing using known technology to fit/overcome operating con- straints	external expert plus clients	direct imaging	specific problem/ solution	high	incidental	clear, simple, app
Planning	chronological tasks related to specified goal, systematic resource alloca- tion, decision- making	experts plus operators	direct, supported by "tools"	very high (process)	varies	varies	rational, straightf deals with time as but manageable comm can manage complex economy of energy
Simulation	creation of imagined system, careful study of its proper- ties	operators (plus experts)	direct	fairly high	fairly high	direct	pre-assesses conseq deals with complex identifies core pro and relationships, human intelligence way
Iterative	spiral-- recognition of need, action, fact-finding, redesign, gives priority to feedback from actions	operators, clients, gatekeepers	only as it becomes present	low	reflex- ive	vigorous	well-suited for cur

Porter & Smith, 1982, pp. 66.

- analysis of the "mess" (set of interactive problems)
- ends planning -- designing the realistic ideal, the "grand vision" of the improvement in place
- means planning -- using structures and mechanisms to decide how to achieve the ends
- resource planning -- assigning staff and other resources
- implementation (incremental, flexible, cyclical).

Planning Dilemmas

Contingency planning is always necessary. At the district level and in each school, initial readiness to begin implementation should be determined, and a "go" or "no go" decision made. Similarly, at key points (e.g., after pilot trial, or when outside funding ends) initial plans need to be reviewed and decisions made to expand, maintain, or terminate the project.

Louis (1983) states that contingency planning is one of three areas in which educators face dilemmas. The other two are leadership and strategies.

- Leadership includes three dilemmas: administrators' involvement, staff involvement, and community relations, each on a continuum of high to low or open vs. closed.
- Strategies are planned and implemented, based on decisions arising from six dilemmas:
 - process vs. product orientation
 - use of outside experts vs. self-reliance
 - fidelity vs. adaptation of the innovation (program)
 - autonomous pilot vs. integration on a broader basis
 - limited goals vs. comprehensive goals
 - formalization vs. naturalism.

Since operating assumptions and the results of implementation influence decisions about each dilemma, no standard set of rules can be applied for all LEAs. However, since research does suggest correlations between program results and the nature and extent of leadership and strategies applied, these two areas are discussed in the following sections of this paper.

Providing Leadership for School Improvement*

... we define leadership as that behavior of an individual which initiates a new structure in interaction within a social system; it initiates change in the goals, objectives, configurations, procedures, inputs, processes, and ultimately the outputs of social systems.

(Lipham & Hoeh, 1974)

In school improvement efforts, leadership is not the responsibility of a single individual but rather of a team or task force.

A cross-hierarchical team should be formed that takes responsibility for planning, making decisions, and modifying activities by using information about the relative effectiveness of the program. This team (plus other representatives of role groups) should have a thorough understanding of the innovation so that plans are realistic and policy and practice are interactive.

(Roberts & Kenney, 1984, p. 46)

The following presents general tasks or areas of responsibility, describes some specific leadership behaviors, outlines role group responsibilities, and lists outcomes arising from effective leadership.

Responsibilities of Leaders in School Improvement

The three general areas of responsibility are: (1) program management, including planning, budgeting, record keeping, expansion, and dissemination; (2) assistance, encompassing materials development, logistical and affective support, and training and coaching; and (3) assessment and evaluation of the program.

1. Program management -- activities related to the development, administration, and expansion of the project.

* This section (and the following section on "strategies") is based largely on the results of a three-year study of school improvement in 182 schools in 24 large LEAs (e.g., see Roberts & Kenney, 1984), and materials developed to inform that project (e.g., see Roberts & Smith, 1982). Those studies are specifically referenced only when direct quotations are presented. Information drawn from other sources is referenced even when it is paraphrased.

- Planning -- includes development of an initial plan and reassessment and revision of plans to ensure on-going improvement and to deal with unanticipated problems. Representatives from all role groups should be involved in planning to promote a sense of ownership in and commitment to the project, and to build organizational knowledge and understanding.
- Budgeting -- planning and monitoring the allocation of project funds. Project directors (usually central office staff) should be responsible for coordinating the financial matters of the project across the district, keeping in mind the needs expressed by the principals and teachers implementing the model.
- Record keeping -- documenting the project as required by the nature of the innovation and/or by the funding agency. All role groups should be required to keep records on relevant aspects of the project (e.g., teachers keeping records on student achievement; central office staff on the scope and intensity of implementation across the district; and principals on the status of the project within their schools).
- Expansion -- growth of the project within the school district. Teachers and principals can expand the project within their school but need the backing of the central office to expand the project to other schools in the district. Expansion within the school can be coordinated by the principal or instructional leader, but expansion within the system should be coordinated by central office staff.
- Dissemination -- publicizing the project and sharing expertise across or outside the school system. Representatives from all role groups can help in publicizing project success, especially to parents, the community, and the school board.

2. Assistance

- Logistical support -- providing concrete resources (e.g., instructional materials, access to telephone, copying machine, common time for planning). Central office staff should act as resource coordinators, providing various support services to implementing schools across the district. Principals should coordinate resources within their schools. Instructional leaders can influence the type of support provided.
- Materials development -- developing new materials, planning units and lessons. Teachers are mainly responsible for developing classroom materials but should have the logistical support of principals and central office staff.
- Affective support -- All role groups should provide affective support to each other but central office staff and especially principals need to acknowledge teacher efforts formally, such as creating opportunities for professional development and visibility, or informally, such as praise for a job well-done.

- Training and coaching -- sharing knowledge and skills in program implementation with other educators and training events or providing systematic follow-up assistance individually to implementing teachers. Central office staff can train and coach at the district level. Teachers and principals are effective trainers and coaches at the school level and the district level when they have the backing of the central office.

3. Assessment and evaluation

- Program -- measuring the impact of the project on the school system. Project directors should be responsible for assessing program impact (possibly with outside assistance e.g., from the SEA, a college, or similar agency).
- Instructional gain -- formal assessment of the effects of the program on teachers and students. For instance, staff may be surveyed to determine attitudes to the program and the extent of increase in teachers' knowledge and skill in the program area. Students' attitudes and achievement of program goals should be determined by analyses of grades, test results, or surveys. Teachers should collect student achievement data, working with each other and the principal to determine how results should be used to improve instruction. Central office staff (or project directors) should lead in developing or selecting measures and methods, and coordinating data collection for decision-making.
- Monitoring teacher application -- observation of teachers to ensure that the program is being implemented regularly with a minimum of adaptation. Central office supervisors and the school principal can monitor teacher application, but teachers may fear that their teaching ability is being evaluated. Teachers can serve as monitors if designated by administrators or by their expertise in the model being implemented.

Specific Leadership Behaviors

When resources invested in a school improvement program produce positive results, the program should become part of the school routine (institutionalized).

District-wide institutionalization is strongly correlated with central office support and school-level institutionalization....

The strongest predictors of school institutionalization are support from school-based administrators and instructional gain. This indicates that the program selected has to be one that really makes a difference in the classroom, and is sufficiently linked to the principal's priorities to influence administrative investment in affective and logistical leadership behaviors.

(Roberts & Kenney, 1984, p. 45)

Since administrative support is so important, it is defined here as including:

1. Affective behaviors that...
 - (a) demonstrate commitment and belief in the program's value
 - (b) provide support by demonstrating interest and recognizing teacher success.
2. Such logistical behaviors as...
 - (a) a "press" for fidelity, monitoring implementation, and expecting a given level of use of the program
 - (b) a "press" for intensity, monitoring implementation, and helping to ensure that at least three teachers in each participating school use the program regularly
 - (c) assistance by coordinating, training, responding to requests, and providing resources (including materials or time for teachers to develop materials)
 - (d) coordinated communication across teachers, and school and district level administrators for program review and improvement
 - (e) implementation of decision making based on a variety of data .

Even though a cross-hierarchical team may share management responsibilities, educators recognize the realities of line authority and the constraints of regular roles and responsibilities. Therefore, for each of the three role groups, it is useful to describe some of the more important responsibilities (which are in addition to those listed above).

Central office staff should:

- Encourage linking schools and the LEA to the SEA, and act as resource coordinators by providing various support services. If implementation is in more than one school, central office staff function as "project directors."
- Make decisions based on sound knowledge (e.g., evidence of local need, validity and appropriateness of "improvement" model or program, assurance of availability of adequate resources, including person time).
- Involve all role groups (teachers, school administrators, central office staff, and sometimes outside technical advisors) in planning and implementation so that:

- plans are realistic
 - reassignments do not result in organizational loss of knowledge
 - groups can support each other
 - no one group is overburdened
 - there is a reasonable chance that success will go beyond the initial pilot school.
- Ensure that the following elements are included in the change process:
 - participation is voluntary or allows some areas of choice
 - communication is multi-dimensional
 - planning is interactive with training
 - training and technical assistance are provided before and during implementation
 - "lip service" compliance is not accepted as implementation.
 - Set clear expectations for involvement of different role groups in the improvement effort, i.e., responsibilities for principals, teachers, and central office staff should be specified (Loucks & Crandall, 1982).

School-building administrators should:

- Ensure that teachers' concerns are addressed (logistical and affective), and function as supportive facilitators or managers, sometimes with "project director" status if a "lighthouse school" strategy is used.
- Direct instruction: set instructional achievement standards and judge teachers and self by those standards. Obtain staff commitment to a school-wide program, philosophy, or priority (e.g., instructional emphasis). Take teachers' ideas into consideration in decision making. Observe/supervise teachers, including checking on such activities as assignment of homework (Loucks & Crandall, 1982).
- Work with staff to ensure that all teachers:
 - participate in decision making for instructional improvement
 - allocate more time and effort to instructional tasks than to extra-curricular activities (class and in-service time)
 - support individual teacher activities relating to the improvement program.
- Work with staff to achieve a shared understanding that is reflected in common behaviors about discipline, student responsibilities, and expectations.
- Set expectations for use of the new practice, including the extent of acceptable adaptation (Loucks & Crandall, 1982).
- Work with teachers to assess their use of the components of the new practice, both before and during implementation (Loucks & Crandall, 1982).

- Call on central office staff for assistance when teachers request it or there appears to be a need (Loucks & Crandall, 1982).

Teachers should:

- Work with other users, building administrators, and central office staff to plan implementation and to assess the use of components of the practice, discuss possible adaptations, and identify assistance and resource needs (Loucks & Crandall, 1982).
- Attend training, and develop or organize materials (Loucks & Crandall, 1982).
- Carry out classroom implementation tasks. Also, teacher representatives support others by "turn-key training," especially for capacity building sites. When implementation is in one school, teachers can function as "project directors" if administrators do not take on that responsibility.

Technical Assistance

In very large school systems, when many schools become involved in the improvement program, a team may be formed to provide technical assistance. The team may include administrative and supervisory staff as well as teachers on special assignment. (Sometimes the team includes or is made up of people outside the system, such as SEA staff.) The team leader should be a senior administrator who works closely with the superintendent. The following findings (Roberts & Kenney, 1984, pp. 48-49) suggest guidelines for the team.

- If staff are assigned as part-time technical assistants (TAs), they need to form a group that has strong leadership from a senior administrator, and active support from their regular supervisors. The TA group coordinates program planning, communication, and resource allocation, and designs major awareness-level training activities. The group works to achieve program goals (avoiding tangential or pro forma activities).
- TAs should value the program and have regular assignments that can readily be integrated with the improvement project. Their responsibilities should be adjusted so that TA groups spend at least 40 days a year on the improvement project.
- Effective TAs should have a solid knowledge of instruction, curriculum development, staff development, planned change and organizational analysis, and the models of innovations to be implemented. They should be familiar with schools and school systems, particularly those to which they are assigned, and should establish positive productive relationships with those systems, maintaining program integrity in the context of local constraints.

- From a local perspective, TAs are useful when they are program advocates; provide quality information, training, and assistance relevant to local needs to facilitate rich fidelity of implementation; and engage in cross-hierarchical problem solving that helps to clarify program purpose, maintain harmony, and contribute to instructional improvement. TAs should support local leadership teams, and acknowledge successes.

Outcomes Arising From Effective Leadership

When a program is successful, it is implemented with fidelity (faithful to the developer's design), and intensity (enough time each week to make a difference). Program outcomes are achieved. Process outcomes are also achieved and the program should become institutionalized (Miles, 1983).

Indicators of institutionalization, achieved over time, through effective leadership, include:

1. Procedural outcomes
 - (a) in-service is modified to support the program
 - (b) staff are assigned and accountabilities are modified
 - (c) resources (time, materials) are allocated annually
 - (d) local funds are used.
2. Policy outcomes
 - (a) management (leadership, advocacy, decision-making) is shared, not reliant on a single administrator
 - (b) effectiveness is assessed and data are used in decision-making.
3. Organizational outcomes
 - (a) cognitive: the status of the program is commonly understood, clearly stated, nearly all teachers asked to participate do so regularly
 - (b) affective: local educators feel "ownership" of the program; there is harmony between teachers and school-based administrators about the program; and there is harmony between school-based staff and central office staff about the program.

These outcomes are also influenced by the strategies selected by local leaders. The following section discusses some strategies appropriate to various kinds of LEAs or priorities.

Selecting Implementation Strategies

Strategies arise from decisions which are influenced by local priorities. Therefore the project task force or school improvement team needs to begin by identifying school needs and district priorities, and clearly understanding their relative importance both in political terms and in terms of opportunities to bring about real improvement in students' learning. For instance, if several high schools have attendance and discipline problems and the superintendent's first priority is in that area, opportunity for change is much greater than if the schools do not recognize the need or if the superintendent is focusing on basic skills. This exploration of needs and priorities is part of the first stage of strategic planning -- the analysis of "the mess."

From that analysis (which might include a formal needs assessment, or some orientation or training activities related to more desirable programs or systems), the team can move on to designing the "realistic ideal" -- the ends to be achieved by the improvement program. The next step is determining how the program is to be implemented. Here, some parts of the original realistic ideal may be eroded or postponed as they are seen to be overly ambitious, but decisions are made about the scope and sequence of the project, and the strategies to be used. The rest of this section discusses factors that influence planning for implementation and strategies that may be used.

Influencing Factors

As stated earlier, one of the variables of implementation is the "what" -- the innovation, model, or program. It must be appropriate to the local need, designed for the given target audience and purpose, and proven effective in sites similar to the adopting school or district.* Assuming that more than

* A model may be designed by the LEA to meet a specific need. In this case, the "proven effectiveness" criterion cannot be immediately satisfied, but should be met before the model is used in other schools.

one model or program meet these criteria, the school improvement team may want to make their choice according to the models' relative complexity.

The more complex the model, the more effort is needed to implement it, especially in the first year. However, complex models may be worthwhile if they make a real difference in a classroom or school. Complexity is a somewhat subjective criterion that can be judged by rating the model on four dimensions:

1. Knowledge -- how much new information (knowledge, skills, attitudes) must be learned by teachers and administrators?
2. Materials -- how much classroom (or school) materials need to be developed or redesigned?
3. Methods -- how much change is required in the way things are done in the classroom and in the school?
4. Organization -- how much administrative action and participant role change is required?

If a model is complex yet very appealing, educators should resist the temptation to change it.* Instead, they should maintain its integrity but reduce the scope of implementation planned in order to stay within manageable limits.

Scope refers to the number of schools, classes or teachers, curricular areas or subjects, and students involved. Intensity refers to the time allocated for program use -- the frequency or percent of time in which a given group of students is involved in the program. A critical mass is necessary for program maintenance, which means that at least three teachers in a school should be involved. Sporadic or brief use makes little impact, which means that (for initial or pilot implementation) an instructional model should be used at least for a full marking period, or an attendance program should be

* Some adaptation may occur in the second year, but initially it is preferable for fidelity to be maintained.

consistently applied at least to all students in a given grade for a semester. It is preferable for a few teachers to implement with high intensity in the first year than for many teachers to implement briefly or sporadically. The few (with appropriate support) are more likely to overcome initial problems, experience success, and become program advocates. In the second year they can help expand the program to other teachers. Thus, intensity (with fidelity and acknowledged success) is more important than scope in the first year.

The influences of planning and leadership have been discussed in previous sections. This leaves one set of influences which cannot be predicted or controlled -- the social pressures or environmental turbulence that can change priorities or undermine programs (Miles, 1983). In some cases, funding cuts stimulate these changes, which include: (1) staff reassignments resulting in shifts in leadership, which in turn result in communication lags or loss of expertise; (2) revised priorities (which can have positive results leading to additional allocation of resources and expansion, or negative results if administrators involve teachers in multiple projects); and (3) organizational changes (which have a negative impact if leaders receive additional assignments or participants have to learn new systems).

Such changes can threaten improvement programs. However, even when high environmental turbulence occurs, projects survive and make progress when there is clear evidence of instructional gain, and administrative support, and attention has been paid to the outcomes of procedure, policy, and organization (discussed earlier).

Knowledge of influencing factors facilitates decisions about the implementation strategy to be used.

Implementation Strategies

There are four basic implementation strategies.

- Lighthouse. A single school is involved or, in large districts, several single schools are involved, each operating autonomously to implement particular models or program components. No commitment is made by central office staff to provide support, to advocate further use, or to initiate planning or training in other schools. This strategy puts the greatest burden on school staff. Institutionalization is probable if the principal's priorities are addressed, there are no conflicting innovations, and at least three teachers advocate and implement the innovation regularly.
- Capacity-building. This is essentially a staff-development approach in which teachers are trained and then volunteer to "try" a model or program component. Initial training is usually provided by central office staff to teachers in several schools. When school teams (of at least three teachers) pre-contract with the trainer, and principals agree to provide release time and support, and if the model or program component is classroom-oriented rather than systemic (e.g., curriculum vs. discipline), this approach can be successful. However, there is no formal commitment by administrators to provide on-going support or "press" for implementation. Therefore, institutionalization is less likely.
- Pilot/District. In the first year, up to three schools are involved, with a strong central office support. Evidence of success leads to greater administrative involvement and, in some cases, use of key teachers as trainers or technical assistants. By the end of the third year, as many as 30 schools may be regularly implementing the program. This strategy is the most feasible, especially for large school districts or for complex improvement programs.
- District wide. All schools at a given level (e.g., elementary) are involved with the selected model used for a given subject in all classes by at least three teachers in the first year. In subsequent years, expansion occurs as more teachers and/or schools become involved. This strategy requires the most work from the most people, with central office staff enthusiasm and effectiveness important for success. (Usually about 25 schools are involved as a "first wave." In large LEAs, it is possible to involve more schools if the program is not overly complex, if careful preparation has included principal training to build commitment, and if staff are available to provide follow-up support.)

A pilot/district or district-wide strategy can be used cost-effectively in a school improvement program if there is a strong relationship between school needs and district priorities, and if time and effort are to be invested.

... In both cases, the goal is for all program eligible teachers to be implementing the model regularly by the end of the third year, using a process of incremental involvement. The pilot/district strategy begins in very few schools, and expands by school, beginning in each school with the principal's support and an active team of volunteer teachers. The district wide strategy begins by focusing on teachers (from all schools) with responsibility for a given subject area and grade level(s), and expands by grade level (and sometimes also by subject area). In both cases, awareness training should be conducted for all administrative and supervisory staff before teachers are trained. "First wave" participants should be volunteers, to the extent feasible.

Attention should be paid to the indicators of institutionalization, particularly those relating to organizational outcomes and administrative support.

Participating teachers should be given release time, and school teams should have common planning time in their first year of implementation, with more time available if curriculum materials are to be developed.

Classroom instruction should not begin until teachers are prepared to teach a complete unit or course. Stops and starts, sporadic implementation, and low fidelity should be discouraged by team leaders providing relevant coaching or support so that participating teachers can experience success.

Assessment of implementation processes and instructional gain should be on-going to enable successes and problems to be identified and dealt with appropriately.

If the selected program has proven its value elsewhere, but produces little or no instructional gain at a new site, the fidelity and intensity of use should be assessed. If both are high but apparent for only a few isolated teachers, administrative support needs to be improved and organizational, policy, and procedural outcomes assessed and modified if institutionalization is to occur.

(Roberts & Kenney, 1984, pp. 45-47)

In the previous sections, reference was made to training and follow-up assistance. Since training plays such an important part in school improvement efforts, it is addressed separately below and the concept somewhat enlarged to allow for discussion of staff development in general.

Designing and Conducting Staff Development Efforts

Staff development for educators at all levels is essential to maintain and improve relevant knowledge and skills. When a new program is initiated, staff to be implementing that program must be trained. School districts can plan comprehensive staff development programs that support district priorities and address individual needs; they can design sets of training activities that are most likely to result in classroom improvement; and they can look to research and experience to determine the characteristics of effective staff development.

The following presents the characteristics of an effective staff development program and of training activities, then reviews the implications to be considered if the intended outcomes include direct application of new programs or concepts by a most teachers.

Characteristics of An Effective Staff Development Program

- The program has clear goals and long-range, comprehensive plans.
- It is based on the philosophy that the purpose of staff development is to improve classrooms and schools through the continuous professional development of educators and support staff.
- It furthers organizational goals and meets individual needs, and has strong administrative support (district and school).
- It supports major functional areas of service delivery, such as the instructional program, curriculum, and teacher-student interactions (particularly when a new program is introduced).
- The program contributes directly to excellence in teaching and optimal student learning.
- The program balances district and school roles, and coordinates activities at both levels.
- Administrators, teachers, and other staff are included in planning, implementation, and evaluation.
- It maintains integrity of content (knowledge/skills), but adjusts delivery processes to meet the varying degrees of sophistication of the participants.

- It includes a variety of on-going activities, including workshops, group planning or curriculum activities, coaching, or individual study or practice.
- Activities are scheduled during non-instructional time and summers, providing for in-service credit or release time.
- Plans are modified based on evaluation and feedback.

Characteristics of Effective Training Activities

- Each activity uses a type of presentation which is tied to expected outcomes (increased knowledge, skill acquisition, behavioral change).
- It has clear objectives tied to audience interest and need.
- It is scheduled at a convenient place, at a time that does not compete with other responsibilities.
- It uses appropriate, comfortable facilities.
- It applies the principles of adult learning.
- It has current and appropriate content based on theory, research, and best practice.
- It has a knowledgeable, skilled facilitator or presenter.
- It includes receptive and active roles for participants.
- It is perceived as useful to participants.
- It has follow-up for participants.
- It is evaluated.

The activities should be designed so that: the individuals want to learn; the learning is in context and "owned" by the learner; group learning occurs; each individual learns about himself/herself, others in his/her work situation, and better ways to get the work done; and anyone in a leadership role encourages participants to contribute the three kinds of learning (self, others, work) to any task at hand, recognizing that individuals and the organization will benefit (Handy, 1978).

Implications for Executive Control

The match between objectives and activities is explained in more detail in Table 2. If the criterion for success focuses on responses of trainees during and immediately after an event, Knowles' activities and outcomes are useful. In general, he suggests that while trainees may become more knowledgeable by attending to visual and aural presentations, concept building requires more active involvement through discussion, skill building requires participation and practice, and change in attitudes requires self-disclosure and exploration of the relationship of the new information to trainees' existing work and beliefs. Knowles (and others who have the same basic ideas) makes no distinction between various kinds of audiences (e.g., teachers, administrators), their relative maturity in terms of the information presented (e.g., veteran department head, student teacher), or the motivation or incentives influencing participation.

If the criterion for success is classroom application of an instructional process or new curriculum, the summary of research by Joyce and Showers suggests that teachers need to be involved in a series of activities. (See Table 3.) They argue that although a few teachers may develop skills or apply ideas following rationale and theory building, most need involvement in all of the first four components, moving from awareness, to conceptualization, to skill development, and to application of information transferred from a workshop setting to their own classrooms. The fifth component -- integrated learning -- may be less important for teachers for whom the new information is closely related to their existing information. In such cases, executive control may take place through on-site coaching. However, when the new information is complex, different from existing practice, very situation

Table 2

Matching Workshop Activities to Desired Outcomes*

Type of Outcome	Most Appropriate Activities
Knowledge	Lecture, television, debate, dialog, interview, symposium, panel, group interview, colloquy, motion picture, slide film, recording, book-based discussion, reading.
Understanding	Audience participation, demonstration, motion picture, dramatization, Socratic discussion, problem-solving discussion, case discussion, critical incident process, case method, games.
Skills	Role playing, in-basket exercises, games, action mazes, participative cases, T-Group, nonverbal exercises, skill practice exercises, drill, coaching.
Attitudes	Experience-sharing discussion, group-centered discussion, role playing, critical incident process, case method, games, participative cases, T-Group, nonverbal exercises.
Values	Television, lecture (sermon), debate, dialog, symposium, colloquy, motion picture, dramatization, guided discussion, experience-sharing discussion, role playing, critical incident process, games, T-Group.
Interests	Television, demonstration, motion picture, slide film, dramatization, experience-sharing discussion, exhibits, trips, nonverbal exercises.

* Based on Knowles, M.S. The modern practice of adult education: Androgogy versus pedagogy. New York: Association Press, 1970.

Table 3

Training Components and Outcomes*

Outcomes	Training Components
Awareness	Rationale and theory building -- study of relevant information by trainees, with trainers using standard presentation activities.
Conceptualization	Demonstration and modeling -- observation by trainees of application by experts.
Skill development	Practice and feedback -- trainees practice new skills (in relatively protected conditions or as a "pilot" effort) and receive fast feedback to help improvement.
Application (horizontal transfer)	On-site coaching -- support and information exchange among trainees; assistance and troubleshooting from experts/trainers.
Executive control (vertical transfer)	Integrated learning -- analysis of relationships of new and old information and situational influences, and development of integrated application that fits situations different from the initial "protected conditions."

* Based on Joyce, B.R., & Showers, B. Power in staff development through research on training. Alexandria, Va.: ASCD, 1984.

specific, or needs to be adapted to a new environment or audience, integrated learning is essential if vertical transfer is to take place. Bruce and Showers state that such transfer is difficult for teachers who focus on the specifics of the new information rather than the underlying concepts.

The Joyce & Showers model is useful if a series of events is planned to help teachers apply new information, if the teachers themselves are the trainees, and if there is administrative approval for the anticipated changes. The model may also be useful if trainees are to "turnkey" (vertically transfer) information to another group of educators. Fewer components of the

training model may be needed if trainees are "mature" in the information area, and/or there is an existing administrative policy for application. On the other hand, if there are conflicting administrative priorities, and/or trainees see little relevance in the information, even total adoption of the model may result in little application (especially if trainees are administrators with high conceptual ability and a preference for making their own decisions).

This suggests that the intended outcomes need to be clearly understood before high-cost training is undertaken, and trainers need to negotiate with trainees and policy makers to ensure a common understanding and mutually relevant involvement. If a common purpose is served, pre-contracting facilitates task sharing and results in agreed-upon outcomes in a cost-effective manner. These findings are supported by the work of Roberts and Woolf (1984). They suggest that large scale staff development requires contingency planning rather than routinized training design. Executive control -- bringing about widespread program improvement -- is influenced by: the extent to which participants understand and agree to intended outcomes and responsibilities (pre-contracting); the match of training to real local priorities (resulting in administrative expectations for implementation); the timeliness of the training content; and the perceived value of materials provided. (To a lesser extent, follow-up support from trainers is useful.)

School district staff should identify program priorities and assess teacher needs, weaving the latter into the former and designing supportive staff development programs and activities that put relevant research into practice for school improvement.

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APPENDICES

- Appendix A: Index of Exemplary Practices and Programs Nationwide
- Appendix B: Index of Exemplary Practices and Programs in New Jersey
- Appendix C: List of Materials for Directory of Exemplary Practices and Programs

INDEX OF EXEMPLARY PRACTICES AND PROGRAMS NATIONWIDE

Basic Skills

General Models of Basic Skills Instruction

Title: Achievement Directed Leadership (ADL)*

Title: Active Teaching (AT)

Title: Direct Instruction

Title: Effective Instruction

Title: Effective Lesson Planning

Title: Mastery Learning (ML)

Title: Student Team Learning (STL)*

Programs for Mathematics Instruction

Title: Calculator Assisted Mathematics for Everyday Living (CAMEL)

Title: Comprehensive School Mathematics Program (CSMP)

Title: Conceptually Oriented Mathematics Program (COMP)

Title: Cross-Aged Structured Tutoring Program for Math

Title: Diagnostic Prescriptive Arithmetic (DPA)

Title: "GO-METRIC"

Title: HOSTS Math: Help One Student to Succeed

Title: Individualized Prescriptive Arithmetic Skills System (IPASS)*

Title: Mathematics Achievement Program (MAP)

Title: Mathematics/Technology (MATH/TECH)

Title: McCormick County Follow Through: Mathemagenic Activities Progr:
(MAP)

Title: Pre-Algebra Development Centers

Title: Project DPI

Title: Systematic Teaching and Measuring Mathematics (STAMM)

Title: Title I Mathematics Computer Assisted Instruction (CAI)

Programs for Reading Instruction

Title: BASIC: California Program in Reading

Title: Coordinated Learning Integration - Middlesex Basics (CLIMB)

Title: Improve Minimal Proficiencies by Activating Critical Thinking
(I.M.P.A.C.T.)

Title: Individualized Computer Assisted Remedial Reading Program (I CARE)*

Title: READ-WRITE

Title: Sierra Reading Lab Program

Programs for Mathematics and Reading Instruction

Title: Computer-Assisted-Diagnostic-Perscriptive Program in Reading and
Mathematics (CADPP)*

Title: Reading -- Individualized Remedial Laboratories
Math -- Individualized Remediation

Title: A Systems Approach to Individualized Instruction (SAII)

Compensatory and Bilingual Education

Title: Clara Barton High School Bilingual Program

Title: DeWitt Clinton High School Project BISECT

Title: Houston Independent School District Bilingual Programs

Title: John Jay High School Project "RESCATE"*

Title: New Utrecht High School Project IMPACT*

Title: Project BABS: Bilingual Academic and Business Skills

Computer Instruction

Title: Computer-Assisted-Diagnostic-Prescriptive Program in Reading and Mathematics (CADPP)

Title: Computer Literacy: A Hands-on Approach*

Title: Computer Literacy: An Introduction

Title: Computer Literacy Curriculum (K-8): The Cupertino Concepts

Title: Individualized Prescriptive Arithmetic Skills System (IPASS)*

Disruptive Students

Title: Central Bucks School District Opportunity Program*

Title: Chestnut Alternative Program (CAP)

Title: Cope

Title: Dothan Alternative School

Title: Northern Area Alternative High School

Title: Peer Culture Development (PCD)

Title: Project Coffee (Cooperative-Federation for Educational Experiences)*

Drug and Alcohol Abuse

Title: The Bridge

Title: Cambridge and Somerville Program for Alcohol Rehabilitation (CASPAR)

Title: Chemical Health and Intervention Program (CHIP)*

Title: Corner House*

Title: Here's Looking at You, Two

Title: The Peer Helping Program

Title: Personal Development Program (P.D.P.)*

Title: Starting Early, K-6; Al-Co-Hol, 7-9; Alcohol Countermeasures for High School Driver Education, 10-12

Title: Statewide Community Organization Program (S.C.O.P.)

Principal Leadership

Title: The Maryland Professional Development Academy (MPDA)

Title: NASSP Assessment Center

Title: The Principals' Center - Harvard University

School Attendance

Title: Bayonne School District Attendance Policy*

Title: Belleville School District Attendance Policy

Title: Lakewood School District Attendance Policy*

Title: Millville School District Attendance Policy*

Title: Newark School District Truancy Task Force Report

Title: Passaic School District Attendance Policy*

Title: Perth Amboy School District Attendance Policy*

Special Education

Title: Haddon Township (NJ) High School

Title: Metropolitan Madison Public Schools/Community Vocational Training Program for the Handicapped

Title: Philadelphia Urban Model Life Skills Program*

Title: Project Ames

Title: Project COVE: Comprehensive Occupational Vocational Education

Student Dropouts

Title: Diversified Educational Experiences Program (DEEP)

Title: Educational Services for Schoolage Parents (ESSP)

Title: Focus Dissemination Project

Title: Intercept: A Positive Alternative to Pupil Suspensions, Truancy, and Dropouts*

Title: Milwaukee Journey House Program

Writing Instruction

Title: Academic Improvement Through Language Experience (K-12)

Title: Ferguson-Florissant Writing Project

Title: Individualized Language Arts: Diagnosis, Prescription, and Evaluation (1-12)*

Title: The New Jersey Writing Project (7-12)

Title: Project WR.I.T.&E: Writing is Thorough and Efficient*

Youth Employment

Title: Alternative II*

Title: Careers in the Classroom

Title: Jobs for Youth, Inc. (JFY)*

Title: Overbrook Regional Senior High School Building Trades Program

Title: The Philadelphia High School Academies*

Title: Strategies and Techniques for Advancement in Reading (STAR)

Title: Success on the Move

Title: Vocational Outreach Program of Middlesex County Vocational and Technical High School System

INDEX OF EXEMPLARY PRACTICES AND PROGRAMS IN NEW JERSEY

Basic Skills

Title: Coordinated Learning Integration - Middlesex Basics (CLIMB)

Title: Project READ-WRITE

Drug and Alcohol Abuse

Title: The Bridge

Title: Chemical Health and Intervention Program (CHIP)

Title: Corner House

Title: Here's Looking at You, Two

Title: The Peer Helping Program

Title: Personal Development Program (P.D.P.)

Title: Statewide Community Organization Program (S.C.O.P.)

School Attendance

Title: Bayonne School District Attendance Policy

Title: Belleville School District Attendance Policy

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Student Dropouts

Title: Educational Services for Schoolage Parents (ESSP)

Special Education

Title: Haddon Township (NJ) High School

Writing Instruction

Title: Individualized Language Arts: Diagnosis, Prescription, and Evaluation (1-12)

Title: The New Jersey Writing Project (7-12)

Title: Project WR.I.T.&E: Writing is Thorough and Efficient

Youth Employment

Title: Alternative II

Title: Overbrook Regional Senior High School Building Trades Program

Title: Vocational Outreach Program of Middlesex County Vocational and Technical High School System

LIST OF MATERIALS FOR DIRECTORY OF EXEMPLARY PRACTICES AND PROGRAMSBasic Skills

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