

DOCUMENT RESUME

ED 218 743

EA 014 771

AUTHOR Dunlap, Diane M.; And Others
 TITLE Aiming at Excellence: A Comparison of the School Effectiveness Literature and Special Education Practice.
 INSTITUTION Oregon School Study Council, Eugene.
 PUB DATE Jun 82
 NOTE 46p.
 AVAILABLE FROM Oregon School Study Council, College of Education, University of Oregon, Eugene, OR 97403 (\$4.00; \$3.00 prepaid; quantity discounts).
 JOURNAL CIT OSSC Bulletin; v25 n10 Jun 1982
 EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS Comparative Analysis; Elementary Secondary Education; *Program Implementation; *School Effectiveness; *Special Education
 IDENTIFIERS Education for All Handicapped Children Act

ABSTRACT

In attempting to document similarities between effective school practices and the provisions of the Education for All Handicapped Children Act (P.L. 94-142), this report reviews the literature on school effectiveness and relates specific recommendations for classroom and schoolwide practices to those services now mandated for special education students. The authors find that the emphasis in effective schools on academic content, a tightly coupled curriculum, and teacher-directed, individualized, and carefully monitored instruction is echoed in the requirements for individualized education programs in special education. On a schoolwide basis, common goals, high standards, clear rules of conduct, and an emphasis on basic skills are also reflected in the underlying philosophy of P.L. 94-142. The authors conclude that procedural and technical problems accompanying passage of the law have resulted in a general confusion of good content with bad implementation. A checklist for effective teaching behaviors is appended. (Author/WD)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

Aiming at Excellence: A Comparison of the School Effectiveness Literature and Special Education Practice

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

Microfilm and microfiche editions of this
document are available from the University
Microfilms International.

This document is available in microfiche
edition from University Microfilms
International.

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

B. Piete

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

Diane M. Dunlap
Mary Gleason
Ruth Waugh

Vol. 25, No. 10

June 1982

Individual copy \$4.00 (\$3.00 if prepaid)
Discount of 10% for 10 or more copies

OSSC

oregon school study council
college of education, university of oregon
eugene, oregon 97403

Preface

The Education of All Handicapped Children Act (P.L. 94-142) swept a wide path of change through the nation's public school systems. Educators were required to adopt a long list of specific practices designed to extend educational benefits to handicapped children.

The framers of this law anticipated that the implementation of changes as widespread as these would be viewed by many educators as an unwelcome burden. The need to override possible resistance was in fact the reason the law made implementation mandatory. But as the authors of this Bulletin point out in their final chapter, the imposition of these changes by law has itself fostered ill will, which threatens to subvert the law's good intent.

The irony in this unfortunate situation is that many of the practices mandated by P.L. 94-142 conform to the practices of effective schools as revealed by the growing literature on classroom and school effectiveness. This is the provocative conclusion made by Diane Dunlap and her colleagues from their comparison of the effectiveness literature with special education practice. We believe this to be a seminal attempt to document the similarities between these two important areas of school practice, and we are pleased to present the authors' work through the Oregon School Study Council. We hope it will lead to a new perspective on P.L. 94-142 as embodying practices that should be implemented not just because they are legally mandated but because they are educationally sound.

Diane Dunlap, senior author, is the assistant dean of the University

of Oregon College of Education and a research associate with the Center for Educational Policy and Management (CEPM). Ruth Waugh is associate professor for special education in the UO College of Education. Mary Gleason is a doctoral candidate and graduate fellow in special education. Additional work on supervision techniques developed by Gleason during preparation of this monograph will be published in a forthcoming Bulletin.

Philip K. Piele
Executive Secretary

Contents

Preface.....	i
Introduction.....	1
Effective Classrooms and Special Education Practice....	6
High Academic Learning Time.....	7
Frequent and Monitored Homework.....	16
Frequent Monitoring of Student Progress.....	17
Tightly Coupled Curriculum.....	18
Variety of Teaching Strategies.....	18
Opportunities for Student Responsibility.....	19
What Can an Administrator Do To Help?.....	20
Summary.....	20
Effective Schools and Special Education Practice.....	22
Clear Academic and Social Behavior Goals.....	22
Order and Discipline.....	23
High Expectations.....	24
Teacher Efficacy.....	24
Pervasive Caring.....	25
Public Rewards and Incentives.....	25
Administrative Leadership.....	26
Community Support.....	27
Summary.....	27
The Sacrifice of Quality for Rules.....	29
Summary.....	35
Appendix A.....	36
Appendix B.....	39
Bibliography.....	40

Introduction

Our choicest plans have fallen through.
Our airiest castles tumbled over,
Because of lines we neatly drew,
And later neatly stumbled over.

Piet Hein, Grooks

What would schools look like, if we had our way? Our students would learn well, regardless of home or community environment. They would learn in a school that is supportive and encouraging of learning efforts and accomplishments. Teachers and administrators would be well trained, confident in their abilities, secure in the knowledge that they can help students learn, and able to help students meet high expectations of learning performance. Goals would be clearly stated, the curriculum coherent, and evaluation relevant. School buildings would be clean and roomy, would support the learning-teaching process, and would be operated with maximum cost efficiency. School districts would be efficiently organized. They would be well funded.

The people of the surrounding community would be involved in helping schools thrive. District, ESD, state, federal, and other support would be given with dispatch and a minimum number of ridiculous regulations. The colleges that prepare teachers and administrators to work in schools would work with schools, building training programs and providing help where needed. Citizens would be knowledgeable, openly supportive and proud of their schools, and would not be overtaxed in the process.

Is this an unreachable goal?

We don't think so, and neither did the members of the Oregon Joint Committee on Teacher Education who made a similar statement in their recent

report on excellence in Oregon education (Dunlap 1982). The committee is composed of representatives from the Oregon Department of Education, State System of Higher Education, Teacher Standards and Practices Commission, and the Educational Coordinating Commission. They sought advice on excellence in education from all segments of the Oregon educational community and from many national researchers and practitioners. Consensus was reached.

Education can be moved closer to excellence by those who work in education and know the problems best. They also agreed it would be no easy task.

Schools so often seem like an impenetrable maze of neatly drawn plans and lines that make life in the center range somewhere between awful and ridiculous. The layers of conflicting rules and requirements have been the result of the proverbial monkey at the typewriter, typing out infinite nonsense that looks like sense.

In recent years, school people who have devoted their professional lives to education have found themselves facing a "double barrel" of accusation. One barrel comes from an undercurrent of apparent widespread dissatisfaction with public schools, with student/teacher/administrator performance, and with related costs. The other barrel comes from education itself and is aimed directly at the heart of education. "Teaching and schools don't make a difference," say some researchers, as reported in headlines in the popular press.

Under such negative working conditions, many dedicated people have become discouraged and have left their profession. Many others remain in our schools, working with us each day but with greatly diminished energy.

The rest of us work to bolster spirits within the schools while defending a sometimes confusing system outside the schools. At the same time, we're trying to hold together the budget, the students, the buildings, the staff, and ourselves. Certainly, there must be a better way. There must be a way to organize, plan, and educate that doesn't place another neat line in front of us for us to stumble over.

There is. Out of the confusion of changing needs, changing demands, and changing knowledge, many new ideas are emerging about how to get closer to that better way.

The Oregon School Study Council recently published an excellent overview of the current school and teacher effectiveness literature by Richard H. Hersh, associate provost for research at the University of Oregon (Hersh 1982). Hersh and others have been studying the extensive effectiveness literature for the past two years under a National Institute of Education contract with the Center for Educational Policy and Management at the University of Oregon. As Hersh points out:

When put together into a coherent whole, these clues seem to make a great deal of intuitive sense. What is particularly pleasing is that different researchers in a variety of studies are reaching similar conclusions about effective schooling and that these conclusions are reinforced by school teachers and administrators who bring to research programs the critical eyes of experience.

Table 1 is Hersh's summary of the key attributes of effective schools and classrooms from the literature.

TABLE 1. ATTRIBUTES OF EFFECTIVE SCHOOLS

<u>Effective Classrooms</u>	<u>Effective Schools</u>
High Academic Learning Time (ALT)	Clear Academic and Social Behavior Goals
Frequent and Monitored Homework	Order and Discipline
Frequent Monitoring of Student Progress	High Expectations
Tightly Coupled Curriculum	Teacher Efficacy
Variety of Teaching Strategies	Pervasive Caring
Opportunities for Student Responsibility	Public Rewards and Incentives
	Administrative Leadership
	Community Support

The data beginning to accumulate from implementation of P.L. 94-142 (1975 Education of All Handicapped Children Act) are another source of information about more effective schools and classrooms.

The growing consensus about effective schools and effective teaching relates to what we are learning from special education. When we place one set of findings beside the other, interesting patterns and suggestions about improving quality in our schools emerge.

We are going to use Dr. Hersh's outline as the framework for comparing findings from the effectiveness literature with findings from special education practice. The first chapter focuses on findings about effective

classrooms. It is organized around column 1 (Effective Classrooms) of table 1. The second chapter looks at effective schools and effective administrative practice, and is organized around column 2 of table 1. The final chapter examines the unfortunate reality that much of the potential good content of P.L. 94-142 has been sacrificed through a poor method of implementation.

Effective Classrooms and Special Education Education Practice

Teachers and administrators want students to learn well. Indeed, morale improves as student learning increases. A teacher's sense of efficacy and commitment to the job relates to the success of his or her students. The new evidence on what leads to student success can be one avenue for improving teachers' confidence in their own abilities, as well as for improving their morale.

Table 2 shows Hersh's instruction and curriculum outline for effective classrooms next to attributes from special education practice.

TABLE 2. COMPARISON OF EFFECTIVE CLASSROOMS WITH SPECIAL EDUCATION PRACTICE

<u>Effective Classrooms</u>	<u>Special Education</u>
High Academic Learning Time (ALT)	Individualized Educational Plan (IEP) - Goals
Frequent and Monitored Homework	Criterion-referenced Goal Statements in IEP
Frequent Monitoring of Student Progress	Short-term IEP Objectives as Measurable Steps to Long-term Goals
Tightly Coupled Curriculum	Annual Review of IEP; Coordinated IEP Planning
Variety of Teaching Strategies	Individualized and Appropriate Education
Opportunities for Student Responsibility	Student and Parent IEP Participation

The new evidence on effectiveness comes from observing teachers in many classrooms in all parts of the country. For example, the Beginning

Teacher Evaluation Study (BTES) in California continued for six years and included observations in thousands of classrooms. The activities of other research groups, like the Research and Development Center for Teacher Education in Texas and the Institute for Research on Teaching in Michigan, were equally long term and long ranging. The new evidence is not simply the opinion of the latest educational guru. Instead, the evidence comes from painstaking coding of teacher and student activities in classrooms during typical school days.

In one study (the Planned Variation Study), the students were Head Start alumni whose IQ's ranged from 50 to 120. In the Michigan Cost Effectiveness Study, the students were Title I students. More often, the studies are of a mix of high, medium, and low students, similar to those found in Oregon schools. The thousands of students observed came from diverse regions of the country and represented the full range of students found in schools. This diversity of students and geography means that the principles of effective teaching emerged from observations of hundreds of teachers working with thousands of students.

The principles that have emerged from the classroom observations are remarkably consistent, whether the students are classified as special education or regular education students.

High Academic Learning Time

The first principle, maintaining high academic learning time (ALT), serves as an umbrella for more detailed descriptions of how to keep students engaged with a high success rate in academic activities for longer portions

of the school day while maintaining an atmosphere of pervasive caring. High academic learning time is a complex measure of effective teaching. It includes, among other things, monitoring student homework and progress, providing a tightly coupled curriculum, using a variety of teaching strategies, and getting students to accept responsibility for some of their own learning.

In a recent Exceptional Education Quarterly article, Stevens and Rosenshine name four spokes to the ALT umbrella:

1. Effective instruction takes place in groups.
2. It is teacher directed.
3. It is academically focused.
4. It is individualized.

The term academic learning time was first used in the six-year Beginning Teacher Evaluation Study (BTES) conducted in California classrooms in cooperation with the California Commission for Teacher Preparation and Licensing. These observations were of regular teachers working with typical students. The fourteen major findings from this study are concisely summarized in Time to Learn (Denham and Lieberman 1980). This small book is still the best introduction to what constitutes best practice in effective classrooms.

Group Instruction

Group instruction is the first spoke of the academic learning time umbrella.

The amount of time teachers allocate to instruction in a particular curriculum area is positively associated with student learning in that area. The allocated time sets the upper limit on the amount of inschool learning.

During this allocated time, either students are engaged in learning or they are inattentive. Here, too, the differences are startling. In some classes, the average engagement rate was about 50 percent; in other classes, the engagement rate approached 90 percent. When the teachers had more substantive interaction with the students, higher levels of student engagement occurred. Substantive interaction meant that teachers structured the lesson, gave directions on task procedures, guided practice until the students could respond successfully, and only then did teachers expect students to work independently. Students learn more if the teacher spends more time actually interacting with them. This finding seems boringly obvious until the very large differences between teachers is examined. Some teachers allocate three times as many minutes each day to teaching math as other teachers do. The same is true of reading.

Instruction in groups yields more actual academic learning time than one-to-one instruction. For example, if a teacher with only ten students spends class time in one-to-one instruction, each student receives 6 minutes of instruction each hour and spends 54 minutes working alone. In regular classes of twenty to twenty-five students, if the teacher works with each child individually, the actual instruction time drops to 2 or 3 minutes each hour. A higher rate of academic learning time actually occurs when a teacher works with a group on a common task.

This focus on structured, sequenced academic learning time is very compatible with the P.L. 94-142 focus on individualized, criterion-referenced goals and objectives statements in IEPs. However, there is apparent real

conflict between the need for common tasks and the heterogeneity that results from introducing into the classroom a range of students previously excluded. The addition of handicapped children to regular classrooms clearly increases the variety and breadth of students' needs and skills. This increased variety in turn creates a greater need for teachers to be familiar with a broad range of curricular options and teaching strategies.

To find a balance between the range of the classroom group and the needs of each individual student, a teacher must be familiar with basic curricular goals and objectives, must plan for results and monitor progress, and must be familiar with a variety of teaching strategies for a variety of students. Clearly, seeking increased effectiveness with a greater variety of students has placed more critical demands on teacher classroom management skills. All teachers must be able to apply individual and group management skills in the classroom to ensure success. Teachers need to know group-alerting techniques, behavioral analysis procedures, management of transition periods, and management of a variety of learning activities in a single setting.

Teacher Direction

The second spoke of the umbrella of increased academic learning time is teacher-directed instruction. The teacher chooses what is to be learned. The teacher selects the material to be used. The teacher demonstrates how to do the task and monitors student progress, telling students how to achieve correct responses. This teacher direction needs to occur in a businesslike atmosphere of mutual respect and friendship. The students who learn more slowly must be given opportunity for additional practice until success is

reached. An effective teacher shows the students how to do the task, leads them through active guided practice, and gives feedback and correction to the group and to each student until each student reaches a success rate of 80 percent or better on initial learning.

A teacher should assign seatwork only after all students reach a high degree of success with all portions of the task. The seatwork should relate directly to the instruction and provide successful independent practice. On independent work completed in class, BTES students achieved a 90 percent success rate. In classes where teachers had to spend time explaining the assignment after the students had started to work independently, lower achievement resulted.

Stallings observed high school remedial reading classes. The very words "high school remedial reading" conjure up a picture of apathetic students with attendance problems. Stallings found that these students learned best in classrooms where teachers spend more time in direct teaching, discussing homework, and providing considerable supportive feedback. Teachers in these classes stayed involved with the students all class period. By contrast, students made less gain in classrooms where 40-50 percent of the time was allocated to written assignments, another 30-40 percent was allocated to silent reading, and teachers made lesson plans or graded papers. Students need supportive interaction with the teacher to make progress.

Fredericks of Oregon's Teaching Research Division in Monmouth worked with teachers of severely handicapped students in a project that contributed to his winning the National Teacher of the Year award in 1977. He, too,

searched for the key to effective teaching. The students in his project were the most difficult to teach--the severely and multiply handicapped. These students progressed toward goals of independence if the teachers presented the information in small steps, if teachers showed the students how to perform specific tasks, and if they told the students how to correct their errors. Teachers who interacted less persistently with their students produced fewer gains.

The findings related to teacher-directed instructional time are consistent, regardless of the student category or range. Greater learning occurs when more teacher time is spent teaching. More learning occurs when the instruction is directed, organized, and individualized. Teachers who continuously assess what their students can do, and who plan the next steps with care, keep students involved. That involvement leads to learning.

Another interesting aspect of teacher-directed instruction is the paucity of evidence for unique methods of teaching special education students. There is no evidence that special education students should receive instruction to their preferred modality. There is no evidence that weak central-processing capabilities should be remediated, either before or during more traditional teaching. The proponents of "special" teaching for special education students have not been able to support their ideas with evidence of increased student learning. On the other hand, low I.Q. students and those classified as learning disabled have been shown to make progress when their teachers structure learning along the same principles that help other children learn.

Frequent and monitored homework combined with frequent monitoring of

11
11

student progress are key elements of teacher-directed classrooms where prestructured learning occurs. This attention to organization before teaching should not be confused with the old stereotype of everybody-at-their-desk quietly doing paperwork. A teacher organizes work in advance, monitors student progress carefully, and then adjusts and adapts methods to meet individual goals. This teacher is a Pied Piper, enticing students to follow the prearranged plan.

Academic Focus

The third spoke of the ALT umbrella is academically focused instruction. Special education teachers at one time deemphasized academic tasks for retarded or learning disabled students, opting instead for arts and crafts. Students in these classes actually had less instruction in reading and math than their peers who learned more easily. As a result, many left school as functional illiterates. Many of those students might have learned to read and compute if their teachers had structured the learning experience in small steps, had worked for mastery of initial learning, and had provided for guided practice that helped the students see errors in their own responses. A strong academic focus occurs through careful planning of curriculum and instruction (Hersh's "tightly coupled curriculum"), combined with frequent monitoring of activities and progress.

Individualized Instruction

The fourth spoke, individualized instruction, may seem to negate the first spoke of teaching students in groups. How can effective instruction be both grouped and individualized? In this case, individualization means

that every student is given equal opportunity to respond. In terms of our organizing table, teachers use a variety of teaching strategies in a tightly coupled curriculum, encouraging opportunities for student responsibility. Teachers seldom intend to discriminate against any student, yet the evidence in observation studies is clear that teachers call on slow students less frequently, wait shorter periods of time for their responses, and rephrase the questions for them less frequently. Individualized instruction means, among other things, that every individual student is taught the task for that day and given an opportunity to show that the teacher be skilled in a variety of teaching techniques that are used in a tightly coupled curriculum with frequent monitoring of individual student progress.

Individualized educational goals and objectives are at the heart of the IEP process. While the general curriculum may help teachers choose appropriate goals for students who fall in the average range, goals for special students are often more difficult to determine. The IEP process provides an opportunity for teachers, staff, parents, and the student to confer and jointly determine long-range goals. When the IEP meeting is a shared goal-setting conference, parents of special education students support the school and the teacher, and the teacher can more confidently develop short-term classroom objectives toward meeting IEP goals. Annual reviews help both parents and teachers to assess progress made and to modify and extend the educational plan.

Despite frequent "bad press," the fundamental steps of the IEP process and P.L. 94-142 are very consistent with the findings of the classroom

effectiveness studies. "Mainstreaming," "group instruction," "teacher directed activities," and "academically focused individualized work" are terms that apply equally in both special and regular education.

What Administrators Can Do

Skilled administrators can help teachers through careful supervision. Traditionally, administrators have used the supervisory role to evaluate teachers' performance. In viewing their role as evaluator instead of supervisor, many principals have passed up an opportunity to help teachers strive toward effective teaching. These administrators failed to provide much-needed support for the classroom teacher.

Typically, a principal appears in a teacher's classroom with minimal notice and with very general ideas of what to observe and evaluate. The teacher has little knowledge of what the principal is looking for. Because the principal's expectations are unknown, the teacher feels threatened by and resistant to supervision (Acheson and Call 1980).

Administrators can avoid this typical problem by separating the role of evaluator from the role of facilitator. As facilitator, a principal can be a valuable instructional leader. The principal can observe and provide feedback, encouraging teachers to experiment with new ways of teaching, becoming aware of the effects of their behavior on students. To do this well, administrators must become acquainted with the results of teacher effectiveness research, some of which are highlighted in this Bulletin. Additional knowledge about what makes teachers more effective can be gained through the additional readings suggested in the bibliography.

Even teachers who are already "effective" can continue to grow professionally. One of the purposes of supervision can be to promote this professional development. See Appendix A for one district's method. A forthcoming Bulletin will treat in more detail the subject of utilizing an excellent supervision cycle procedure. A new book by Acheson published by the Confederation of Oregon School Administrators is devoted to techniques of supervision and evaluation.

Frequent and Monitored Homework

In Japan and other foreign countries homework extends school learning. Formal classroom instruction allows few opportunities for application of new concepts within the school day. After school the Japanese student reviews what has been taught and uses the new knowledge to solve homework problems. Homework that is checked each day emphasizes the importance of knowledge and indicates that learning continues throughout many activities.

The teacher effectiveness literature demonstrates that when the teacher checks the accuracy of work completed outside the classroom, high expectations can be conveyed to the student. Learning becomes important. Students learn what they did right and what needs further work.

Special education students take longer to learn most tasks. The IEP contains yearly goals and short-term interim goals. Parents who participate in planning the yearly goals gain the perspective they need to provide assistance with homework. Teachers of special students face the added challenge of ensuring that mastery of each new task leads to facility with more complex tasks.

Frequent Monitoring of Student Progress

Observing student work and checking the quality should follow initial teaching efforts. Just as a superior golf instructor spots the cause of a slice or a hook and suggests a remedy that works, so, too, does the classroom teacher combine knowledge of the sport of learning with knowledge of commonly made errors.

Within the classroom, no elaborate diagnostic system is necessary. In the BTES study, teachers were asked to predict what their students would do on representative items from tests. Students of teachers who were accurate in predicting student performance learned more than did students of less accurate teachers. In an interesting 1976 study of third-grade classrooms, teachers of high-achieving classrooms were found to emphasize continual individual assessment. They were "teaching students what they need to know" (Brophy and Evertson 1976). In classrooms where teachers taught to the test objectively, students gained less on the norm-referenced tests at the end of the year than the students who were carefully, individually monitored by their teacher. Teachers who assume responsibility for student learning test more frequently to determine the student's present level of educational performance. Each type of test has strengths and weaknesses. Each test serves some purposes but not others. Expert teachers use norm-referenced, criterion-referenced, and curriculum-based tests, informal assessment, structured observations, rating scales, and work samples.

When special educators begin to plan the year for exceptional students, the first step is to include a statement of the child's present level of educational performance. Here, too, Public Law 92-142 outlines model

practice for all students, with the statement that no one test or type of test shall be used as the sole criterion for placement. No test yields precise data. A combination of two or three different measures often indicates a trend and the present level of performance. Teachers begin from this point in planning the curriculum.

Tightly Coupled Curriculum

The new guidelines for teaching highlight the importance of the teacher. They also place some restrictions on teacher autonomy. Teachers must function as a team to achieve a tightly coupled curriculum. Schoolwide and individual grade-level objectives direct selection of core materials. Goals, curriculum, and evaluation devices are tightly coupled to avoid mismatch between testing and teaching. Students who transfer from one school to another school in the district lose less time getting oriented to different goals.

Variety of Teaching Strategies

A tightly coupled curriculum allows freedom to use many teaching strategies. Students review willingly with a peer tutor, with a film, at an interest center, or in a discussion group. Managing a variety of learning activities in a single setting, like juggling, requires (a) a carefully laid plan, (b) attention to each unit without forgetting the others, (c) rapid transitions, and (d) calm response to crisis. Teachers, like jugglers, perfect these skills through practice. Classrooms with high academic learning time actually result from careful planning, reasonable

goals for each student, high expectations, frequent checking of student progress, appropriate materials, a businesslike atmosphere, and respect for students.

Opportunities for Student Responsibility

As students find learning enjoyable, the teacher can provide students with more opportunities for engaging in responsible behaviors. The teacher could start slowly with one or two peer tutor teams and then move to a small group of dependable students to plan a supplementary project. In high schools, student government activities and student discipline panels can move students closer to the responsibilities of adult life.

Defferent group decision-making processes can be used. For example, Torrance and others have reported on the use of Quality Circles in Japanese schools. This structured teamwork process is found throughout Japanese industry; citizens are first introduced to concepts of individual and group responsibilities in Quality Circles at the first-grade level. The June 1982 Phi Delta Kappan contains an article on a Quality Circle process being tried in the Muskegan (Michigan) schools, as a means toward increasing opportunities for student responsibility.

The whole IEP process allows several opportunities for planned increases in student responsibilities. At earlier grade levels, the parents and the interdisciplinary planning team can plan for student activities that encourage increased responsibilities. When it is appropriate, the student can be involved in the planning and monitoring process as well.

What Can an Administrator Do To Help?

Since effective classrooms for regular and/or special students share so many features, the role of the administrator in facilitating best practice can cut across labels. Administrators and supervisors can help bring about more effective teaching in classrooms.

Anderson, Evertson, and Brophy found that just informing teachers about techniques that yield results increased student achievement. Some teachers in their 1979 study were given a brief manual to read and then an opportunity to discuss it. They were observed periodically throughout the year to see if they were implementing the principles. Students of the teachers who had the information made greater gains than students of a control group of teachers who did not have the additional information.

Summary

We have tried to demonstrate in the preceding pages that most of the critical recommendations about classroom practice made through the effectiveness literature are also good ideas from the viewpoint of special education practice. Classrooms should be focused on well-constructed academic content in a tightly coupled curriculum with clear goals. Instruction should be teacher directed, individualized, and carefully monitored. Students should know how they are doing and should have opportunities to be responsible for their work and their behavior.

The basic IEP requirements in P.L. 94-142 are based on an identical philosophy: Instruction goals should be set clearly, reviewed regularly, and reset periodically in the overall curricular goals. The IEP should be

structured for each student around the student's individual needs and capabilities. There should be maximum participation in decision-making for the student.

Administrators can help bring about more effective classroom practices by being aware of what constitutes effective practice and by passing on new ideas to teachers.

Effective Schools and Special Education Practice

Administrators are critical to improving effectiveness at the school level. In chapter 2, we compared attributes of effective classrooms with recommended special education practices. In this chapter, we will use a similar framework to discuss the relationship between effective schools and good special education practice. Table 3 summarizes this framework.

TABLE 3. COMPARISON OF EFFECTIVE SCHOOLS WITH SPECIAL EDUCATION PRACTICE

<u>Effective Schools</u>	<u>Special Education</u>
Clear Academic and Social Behavior Goals	Goals Required in IEP
Order and Discipline	Least Restrictive Placement Procedural Due Process
High Expectations	Criterion-measured Progress of Each Individual
Teacher Efficacy	Annual IEP Review Administrative Evaluation for Planning and Placement Technical Assistance
Pervasive Caring	Individualized and Appropriate Education
Public Rewards and Incentives	Parent Participation
Administrative Leadership	Shared Decision-Making
Community Support	Earmarked Appropriations

Clear Academic and Social Behavior Goals

Effective schools have clearly articulated academic and social behavior goals that are schoolwide and have at least consent behind them. Basic skill achievement is the firm foundation of the curriculum. Social behavior goals

and rules encourage an orderly academic environment. Teachers, administrators, students, and parents know what the rules are. They may not all agree on the need for every goal or rule, but they all agree about what the goals and rules are. As in many aspects of our democratic society, unanimity is not so essential as consent to a defined procedure.

The relationship of clearly stated goals to more effective schools is exactly the same as that of clearly stated goals to good special education practice. Goal setting is the keystone of the IEP process. Monitoring of those predetermined goals is the key to good daily practice. As has been pointed out all too often in derision of education, goals don't need to be set if you don't know where you're going anyway. Now we know where we want classrooms and schools to go, and clear goals are essential to progress. They are essential for effective teaching and effective schools--regardless of the mix of "regular" or "special" education.

Order and Discipline

Among those clearly specified goals must be rules for social behavior, which are agreed to by administrators, teachers, parents, and students. The expectation should be that the rules will be enforced consistently and fairly. The rules should be schoolwide, and any teacher should feel able to enforce a rule for any student.

As Hersh pointed out in the OSSC Report, this concern for an orderly climate should be supportive of the academic goals while not being oppressive or rigid. Order should supplement the learning business of schools without repressing opportunity or creativity.

The requirements of least restrictive placement and procedural due process in P.L. 94-142 echo this delicate balancing act. While considerable

attention has been paid in recent months to the problem of disciplining students classified as handicapped, current recommendations from both legal and education experts is to make rules as similar as possible for all students. Rules that tie behavior to handicapping categories have not been supported by the courts. That does not mean rules do not apply to students labeled as handicapped. Instead, it makes it all the more important that school rules are clear, well documented, and applicable throughout the school.

High Expectations

Teachers and administrators in schools labeled more effective held higher academic and social expectations for their students than did their counterparts in schools labeled as less effective. There must be something against which students measure their accomplishment.

High expectations are reflected in the combination of clear academic goals, emphasis on performance, monitored work, and rewards for progress. Whether this combination is seen in a well-articulated IEP that documents progress for everyone to see, or in the school that rewards academic work as well as athletic achievement, it is an essential ingredient in communicating our values to students. The entire pattern of the school should say to students and the community, "We think education is valuable and we'll work hard to help our children learn."

Teacher Efficacy

Teachers must have a strong sense of being able to do what they must do. They must know how to teach, or know where to get help when they need it.

They must communicate this sense of instructional power to their students.

In the same way, everything about the school should say, "We know our teachers can help our students learn, and we're here to help them do it."

Pervasive Caring

A sense of teacher and school efficacy should be combined with clear goals, high expectations, and pervasive caring. Students should know that the people who work in their schools care about them. They should know that their teachers care by insistence on hard work and rewards for achievement. They should know the administration cares about them, about the teachers, and about education. Caring can be expressed in a number of ways; it can be shown by a system of public rewards for the achievement of desired goals, and it can be shown in small ways through daily, individualized attention.

The IEP process provides an automatic means of demonstrating caring. The fact of teachers and parents focusing, even for a brief time, on the overall academic plan for a student is an act of caring. Determination of appropriate short- and long-term goals that can be met and documented is an act of caring. Monitoring progress is an act of caring. Sharing in decisions about a student's academic life can be an act of caring.

Public Rewards and Incentives

A school should reward students publicly for achievement of desired goals. Public display of work, assemblies, news releases, and so forth, can all be used to demonstrate the importance of achieving academic goals. Notes sent home to parents in praise of a student could be used as well as the more common notes sent home in times of trouble. Praise in many forms

can be an excellent motivator, as all good coaches know.

One example of an excellent teacher letter to parents is included in Appendix B. This letter incorporates many of the ideas and recommendations we have discussed; it could be used as an example of improved practice that increases public rewards by involving parents.

Administrative Leadership

There is a great deal of argument about what constitutes effective leadership in schools. Should the principal be the "manager" of the school? The "instructional leader"? The "CEO"? Should the superintendent concentrate on keeping the community informed about what the schools can (and cannot) do? Should he or she focus on the board? The principals? The curriculum? Are administrators at every level really supposed to lead, or are they supposed to help keep everything else out of everybody else's progress?

Although there is some disagreement within the school effectiveness literature itself over the most effective role for administrators to play, most of it stems from the definitions within the studies. The general picture that emerges is not that of "superadministrator" who can do all things to all people. Instead, it is one of a superb communicator and facilitator who sees that the things that need to be done get done. A principal does not have to be an expert in curriculum, but if the principal isn't, someone better be. The principal doesn't have to be a master teacher, or an evaluator, or a teacher supervisor, but if the principal isn't, someone better be.

The essential ingredient seems to be that the administrator recognizes

his or her own skills and makes sure all other skills necessary for an effective school exist in the school. The effective administrator facilitates work being done as often as doing it. Instead of being all things to all people, the administrator sees that all things needed for an effective education are provided within the school environment for all students.

Community Support

Schools that are considered more effective generally report greater amounts of parent and community contact than found in less effective schools.

Contact is varied. It is not limited to times of trouble and stress. It is not confined to the sports program, or parent nights, or fund-raising. It is in many forms and is found in all stages of planning and implementation.

Summary

As Hersh points out in his literature review, people run schools. How teachers, administrators, and students behave in a school setting heavily influences the effectiveness of the school. Some attributes of effective schools are found throughout the school and provide the essential context in which effective instruction takes place. Common schoolwide academic and social goals, setting high standards of achievement, and emphasizing solid basic skills are important. Basic rules of conduct should be spelled out. They should be agreed upon by teachers, parents, and students. They should be unambiguous. Students should know that they are expected to work hard toward their potential, and they should know that they will be helped by skillful, caring teachers. Teachers and administrators, themselves, should

know how to help students. Effective schools have clear, public rewards and incentives for student achievement. Each of these attributes is interactive with the others.

The underlying philosophy of P.L. 94-142 requirements is not that different. The goals required in the IEP are to be clearly articulated and criterion-referenced in measurable, observable form. Placement is carefully planned. Expectations are clearly outlined. Performance is carefully monitored. Academic and behavioral achievement is expected, recorded, and rewarded. "Pervasive caring" is shown through individualized planning and careful monitoring of progress, as well as through shared decision-making. Whether a student is "special" or "handicapped" doesn't change the basic structure.

People run schools. People can help schools run more effectively.

The Sacrifice of Quality for Rules

One of the things that became very clear to us in comparing and contrasting the effectiveness literature with special education findings is how much the basic good content of P.L. 94-142 has been obscured and clouded by its implementation. More than one lesson can be learned from special education and P.L. 94-142. In the preceding pages, we described several points of common ground between effective schools and good special education practice. In the following compact historical review, we would like to demonstrate that the implementation of P.L. 94-142 can also stand as a lesson to be learned--on how not to go about changing schools efficiently and effectively.

With fervor and zeal spilling over from powerful advocate groups, Congress passed P.L. 94-142 to "remedy the problems of exclusion and misclassification" related to handicapped children. The title of the law provides the first clue about the degree of mandated change. ALL children were to be educated in the least restrictive, free, appropriate environment. ALL children were to be appropriately identified, tested, classified, and placed within and/or by the public school system--at the local level. ALL children, regardless of handicap, were to be accorded rights of due process, confidentiality, parental/advocate participation in program development, and individualized programs of education (Martin 1979, Turnbull and Turnbull 1979).

Historically, local control of public schools has been such a time-honored tradition in the United States that even state agencies have trod lightly with local school districts. The direct involvement and intervention of the federal government was even less frequent and more indirect. The

1954 ruling of the U.S. Supreme Court on Brown v. Board of Education (347 U.S. 483) first signaled a change in federal responsibilities in education. In prior rulings, courts had said that while education is compulsory there is no implicit right to effective education. In Brown, it was ruled that principles of equal protection and due process do relate to the public schools. This intervention from the federal level flew directly in the face of the complex development of public schools in the United States.

Schools have evolved from simple one-teacher/one-classroom systems, ruled by the local community, to systems of multiple teachers/many classrooms/principals/staff/local boards/state agencies/and so forth. As public school systems have grown in size, complexity, and duration of schooling, teachers and administrators kept some control over the increasing complexity by the ability to control the student population. Curriculum or governance changes were historically locally mandated and therefore fit the local community and school. Funds were usually raised locally for what the community thought was important for schools. In the schools themselves, teachers and administrators could control the population in the classroom. Those students who were not able to "fit in a normal classroom" were not allowed to stay. Deviation from the teacher's definition of "teachable" meant the teacher could remove the child from the class, whether deviation occurred because of intellectual, sensory, physical, academic, or behavioral problems. Removal could be accomplished by failing to pass a child, expelling the child to another classroom, or removing the child from the school completely. In effect, those students who did not fit the teacher's

or administrator's criteria didn't make it; those who did, did.

This "loosely coupled" system of public schooling in the United States as it stood prior to passage of P.L. 94-142 was clearly dependent on the ability of teachers and administrators to control the population of the schools in order to control the outcomes of the schools. As early as the 1820s, schools for those children who did not fit within the regular schooling system were developed at both the state and federal levels. After World Wars I and II, the government was spurred into school vocational rehabilitation programs because of the influence of disabled veterans. The Social Security Act was applied to the blind, disabled, aged, and dependent; further benefits to those who "couldn't make it on their own" were granted through Medicare and Medicaid, Supplementary Security Income, and other programs under Title XX of the Social Security Act. The United States had many ways of caring for those who "didn't fit" in the public school system.

Even a precursory overview of the P.L. 94-142 mandate shows that the all-inclusive requirements ran directly contrary to the major methods of control in complex school systems, that is, the ability of teachers and administrators to control the student population, and the ability of the local district to determine educational priorities. Because the government changed requirements related to the exclusion of students, teachers and administrators perceived and often experienced a significant loss of control and sense of autonomy over the classroom and school population. The need for each teacher and each school to serve a greater range of students was accompanied by confusion over regulation, lack of technical assistance,

a short time frame for compliance, and lack of money to assist in bringing about full compliance.

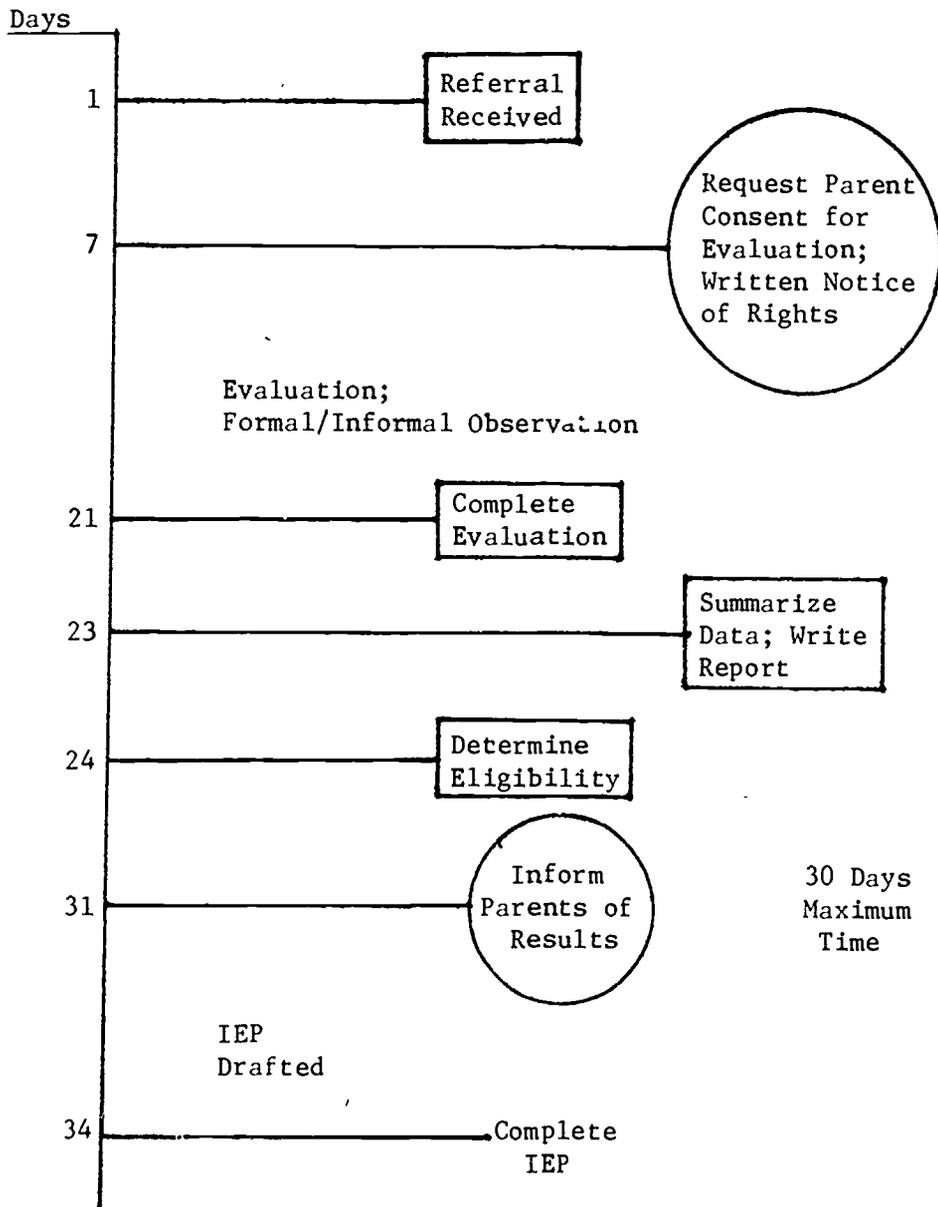
Implementation occurred. But it occurred at significant monetary, curricular, and emotional costs to schools and districts. It occurred with great emotional hardship for people who have become "adversaries" instead of working together for student achievement. It occurred at the great price of confusion over the law's content and the law's implementation process.

No thoughtful person would find "equal rights" an exceptional idea. No educator would find reaching toward the best education for the most children an ugly idea. But if you ask most educators what comes to mind first when they think of P.L. 94-142, it is not "equal rights" or "effective education," but "excessive paperwork" and "due process." P.L. 94-142 is a glaring example of how not to effect gentle change. Because of the many procedural and technical problems that accompanied passage of the law, good content has been confused with bad implementation.

We would like to present two examples from P.L. 94-142 to amplify this point. First, figure 1 is a graphic summary of the procedural timeline for completion of a typical IEP. Looks fairly simple and straightforward, doesn't it? If the procedural elements are as simple as a one-page, nine-point outline, why is it that the process has been confounded by voluminous paperwork requirements? Our point: the process recommended in the law is fairly straightforward, whereas the implementation has been very confusing.

Second, the basic attributes of effective classrooms and effective schools are built into P.L. 94-142. A body of practice encompassing the

FIGURE 1. SUGGESTED PROCEDURAL TIMELINE FOR IEPs



Placement Procedures

Source: Technical Assistance Paper 4, ODE, Jan. 1982.

the effectiveness findings is now emerging from experiences with this law (National Support Systems Project 1982). This new knowledge can fundamentally alter teacher education programs throughout the country. Programs can now be designed on a common base of competency clusters--for the first time in the history of education. The ten competency clusters that have emerged are as follows:

1. Teacher familiarity with a broad range of curriculum goals, methods, and evaluation procedures.
2. Classroom activities strongly focused on basic academic skills.
3. Teacher proficiency with classroom management procedures, including alternative forms of individual and group instruction.
4. Teachers as both receivers and communicators of knowledge, i.e., shared decision-making and planning.
5. Strong teacher-parent-student relationships and strong teacher communication skills.
6. Opportunities for student involvement and responsibility.
7. Teacher knowledge of evaluation methods for ongoing monitoring of performance.
8. Teacher knowledge of alternative placements and methods for students.
9. Individualized instruction and individualized teaching.
10. Emphasis on professional values and responsibilities to individual pupils.

Sound familiar? It should. In any other form, it reads exactly like our earlier lists of attributes suggested through the effectiveness literature.

Summary

There are undoubtedly many reasons why so few people know how very similar the findings in special education are to the more publicized effectiveness literature. Certainly one of the most significant, however, must be the confusing, emotion-charged implementation of a law that is essentially good practice. Most administrators have been so adversely affected by the earlier procedural confusion of the law and the current paperwork requirements that they are not a ready audience for the practice findings now being reported.

In this Bulletin, we have attempted to contrast the similarities and differences between the school effectiveness literature and current findings from P.L. 94-142 practice. We have offered several suggestions from other Oregon practitioners and have included a brief bibliography for further reference.

Our intent has been to point out the unnecessary "neat lines" of old plans so we can recognize and remove them instead of stumbling over them. We emphasized the growing consensus on the ability of school people to recognize excellence and to aim for it--one step at a time.

The "unreachable goal" of improved effectiveness in our classrooms and schools is unreachable only if we don't reach for it. This truth may be a "flag-waving" sentiment, but it is close to the heart of education as any teacher or administrator can be.

Appendix A: EFFECTIVE TEACHING BEHAVIORS CHECKLIST

Developed by Helen C. Cripe for Bethel School District

INDICATE WITH CHECKMARK
IF BEHAVIOR OBSERVED

I. TEACHER DEMONSTRATES EFFICIENT PLANNING BY

- | | |
|---|----------|
| A. Structuring specific time periods for instructional activities | A. _____ |
| B. Grouping students to assure appropriate matching of the difficulty level and interest value of the materials and assignments to present skills and interest of the students. | B. _____ |
| C. Recognizing individual strengths and weaknesses and providing assignments accordingly. | C. _____ |
| D. Using a variety of materials to teach specific skills. | D. _____ |
| E. Using test results and student feedback to provide instruction that corresponds to students' needs. | E. _____ |

II. TEACHER ENSURES THAT MATERIALS AND ASSIGNMENTS PROVIDE PRODUCTIVE LEARNING EXPERIENCES BY

- | | |
|--|----------|
| A. Presenting assignments so that the students know what to do and how to do it. | A. _____ |
| B. Giving students opportunities to practice sample problems for themselves before doing independent work. | B. _____ |
| C. Monitoring student's work on sample problems and giving immediate corrective feedback. | C. _____ |
| D. Providing additional teaching and review if many students are making the same mistakes. | D. _____ |

III. TEACHER DEMONSTRATES USE OF DIRECT INSTRUCTION BY

- | | |
|--|----------|
| A. Setting learning goals of students. | A. _____ |
| B. Clearly stating learning goals of students. | B. _____ |
| C. Frequently making group presentations illustrating how to do assigned work. | C. _____ |
| D. Providing controlled practice in instruction. | D. _____ |

- E. Actively assessing student progress. E. _____
- F. Giving frequent feedback on student's performance with corrective procedures. F. _____

IV. TEACHER HELPS STUDENTS TO IMPROVE THEIR ABILITY TO ATTEND BY

- A. Providing clear, meaningful purposes related to assignments. A. _____
- B. Making goals of instruction clear to the students. B. _____
- C. Using a variety of teaching approaches. C. _____
- D. Providing tasks that allow for a high rate of success. D. _____
- E. Praising and encouraging students. E. _____
- F. Providing a smooth transition from one task to another. F. _____

V. TEACHER DEMONSTRATES AN EFFECTIVE QUESTIONING STRATEGY BY

- A. Asking questions that are clear. A. _____
- B. Asking questions that are purposeful. B. _____
- C. Asking questions that are adapted to the level of the class. C. _____
- D. Asking questions that are brief. D. _____
- E. Asking questions that are thought provoking. E. _____
- F. Asking questions that are set at a difficulty level where most of the students' answers are correct. F. _____

VI. TEACHER DEMONSTRATES ENTHUSIASM BY

- A. Moving around and maintaining close contact with students. A. _____
- B. Making material interesting to students by related it to their experiences. B. _____
- C. Showing that he/she is sincerely interested in the material. C. _____

- D. Using voice inflections to show surprise
suspense, joy and other feelings. D. _____
- E. Presenting tasks as challenges rather than
chores. E. _____
- F. Challenging students to test themselves when
they are trying to solve problems or applying
new skills. F. _____

VII. TEACHER MAKES STUDENTS AWARE OF THEIR PROGRESS BY

- A. Frequent in-class monitoring with direct and
immediate feedback. A. _____
- B. Providing students with pre-post assessment
information that shows improvement. B. _____

VIII. TEACHER DEMONSTRATES HIGH EXPECTATIONS BY

- A. Holding students accountable for their work. A. _____
- B. Expecting students to complete their work and
to meet acceptable standards of quality. B. _____

What We Need Are More Teachers Like This

Every school system has a handful of teachers--more if the school system is lucky--that belongs to the pantheon of the profession. About these teachers not enough can be said; for these teachers not enough can be done.

Charles Fowler, superintendent of schools in Fairfield, Conn., has at least one such teacher on his staff. A district P.T.A. leader stopped by his office the other day and dropped off a letter that this teacher had sent home to the parents of her students. Chuck sent the letter to us, and we thought you'd like to see it, too:

To the parents and the guardians of my English students:

Welcome to the school year; it should be wonderful. This letter is to introduce myself, give you a broad outline of what to expect, and issue an invitation.

I teach your child spelling, literature, vocabulary, grammar, and writing. The daily spelling, vocabulary, and grammar we do will be reflected in our writing. Because the only way to learn to write is to write, every week there will be composition work. I will read every word and comment on every paper and always return them in two days or less.

Vocabulary and literary appreciation will be enhanced through the requirement to read one book a week. I will make time to go to our school library with my kids to choose books. There will be some form of writing based on each week's book (i.e., one week we will focus on a character study and transition, another week we will write about plot development, or students will cite "conflict" found in their book). There will be a spelling test every week.

Homework: You can be certain that there will be approximately one-half hour of homework and one-half hour of reading Monday through Thursday. I do not give homework on Friday or over holidays, but I do expect our kids to continue reading every day. (Despite this rather awesome list of objectives, I hope to have some fun, sneak in a play, etc.)

Homework is corrected every day in class (that's the time we find problems and I reteach). Homework never is graded. If homework is not done (and there is no reasonable excuse such as a visit from Queen Elizabeth or a tryout for the Olympics), the initial assignment is increased and all the work is due the next morning by 7:30 so the student can go over it with me and ensure it is understood. Homework always is reinforcement and practice of what we've done in class, so there's no need for you to help.

You, or my kids, may always call me at home after 7:30 p.m. and before 10:30 p.m. at (telephone number). A three-minute telephone call often can clear up any concern or frustration, so please feel free to call. I'd also like to know if the cat died or grandmother is ill so that your child doesn't feel sad and alone during school hours.

I am in my classroom and available to give your child special help any morning by 7:15. I find students prefer coming in at this time to staying with me after school when they're tired and hungry. Please encourage your child to "use" me.

Every single paper we do will be placed in a folder. These will be sent home to you at the midpoint of each marking period and at the end of each marking period (eight times during the year). Please keep the papers, sign the cover sheet and return it to me. That's how I know you have received them. The total number of pages is written on the cover page. This is my means of showing you your child's progress and serves my purpose better than the normal progress report sheet.

Come sit in on classes whenever you can. You are always very welcome.

Reprinted from The Executive Educator, January 1982.

Bibliography

- Ackieson, K.A. Techniques in the Evaluation of Teachers. Salem, OR: Confederation of Oregon School Administrators, 1982.
- Acheson, K.A., and M.D. Gall. Techniques in the Clinical Supervision of Teachers: Preservice and Inservice Applications. New York: Longman, 1980.
- Anderson, L.M., C.M. Evertson and J.E. Brophy. "An Experimental Study of Effective Teaching In First Grade Reading Groups," The Elementary School Journal, Vol. 79, No. 4, 1979.
- Brophy, J.E., and C.M. Evertson. Learning from Teaching. Boston: Allyn & Bacon, 1976.
- Denham, C., and A. Lieberman (eds.). Time to Learn. Washington, D.C.: California Commission for Teacher Preparation and Licensing, and the National Institute of Education, 1980.
- DeVries, David, and others. Teams-Games-Tournaments. Englewood Cliffs, NJ: Educational Technology Pub., 1981.
- Dunlap, Diane M. (ed.). Toward Excellence in Oregon Education: The Final Report of the Joint Committee on Teacher Education. Eugene, OR: Oregon State System of Higher Education, 1982.
- Durkin, Dolores. "What Classroom Observation Reveals about Reading Comprehension Instruction," Reading Research Quarterly, Vol. 14, pp. 481-533, 1978-79.
- Fredericks, B. Research to Practice in Mental Retardation, Vol. II. Baltimore, MD: University Park Press, 1977.
- Good, T.L., and J.E. Brophy. Looking in Classrooms. New York: Harper & Row, 1978.
- Hersh, Richard H. "What Makes Some Schools and Teachers More Effective?" OSSC Report, Vol. 22, No. 2, Winter 1982. See also Richard H. Hersh and Hill Walker, Great Expectations: Making Schools Effective for All Students. Paper presented at the Conference on Public Policy and the Special Education Task of the 1980s, Wingspread, Racine, Wisconsin, Sept. 1981.
- Nager, R.F. Preparing Instructional Objectives. Palo Alto, CA: Fearon Pub., 1962 and 1972.
- Mann, Dale C. The Politics and Administration of the Instructionally Effective School. Paper presented to the National Institute of Education/AERA Conference, Boston, 1980.

- Martin, Reed. Educating Handicapped Children: The Legal Mandate. Champaign, IL: Research Press, 1979.
- McNeil, J. Toward Accountable Teachers: Their Appraisal and Improvement. New York: Holt, Rinehart and Winston, 1971.
- National Support Systems Project. A Common Body of Practice for Teachers: The Challenge of Public Law 94-142 to Teacher Education. Minneapolis, MN: The National Support Systems Project, 1982.
- Phi Delta Kappan. Vol. 63 (10) June 1982.
- Powell, M., Instructional Time Allocation in Fifth Grade Reading. Technical Report II-5. San Francisco: Far West Laboratory for Educational Research and Development, 1976.
- Stallings, J. How to Change the Process of Teaching Basic Reading Skills in Secondary Schools. Final Report on Grant No. NIE-G-77-0001. Menlo Park, CA: SRI International, 1979.
- Stevens, Robert, and Barak Rozenshine. "Advances in Research on Teaching," Exceptional Education Quarterly, Vol. 2, 1981, pp. 1-10.
- Strain, Phillip S., and others. Mainstreaming of Children in Schools. New York: Academic Press, 1981.
- Technical Assistance Papers: A Series on P.L. 94-142 and Related Oregon Laws. Salem, OR: Oregon Department of Education, 1982.
- Torrance, E. Paul. "Education for 'Quality Circles' in Japanese Schools," Journal of Research Development in Education, Vol. 15, No. 2, 1982.
- Turnbull, H. Rutherford, and Ann P. Turnbull. Free Appropriate Public Education: Law and Implementation. Denver: Love Pub. Co., 1979.
- Weintraub, Frederick J., and others. Public Policy and the Education of Exceptional Children. Reston, VA: The Council for Exceptional Children, 1976.