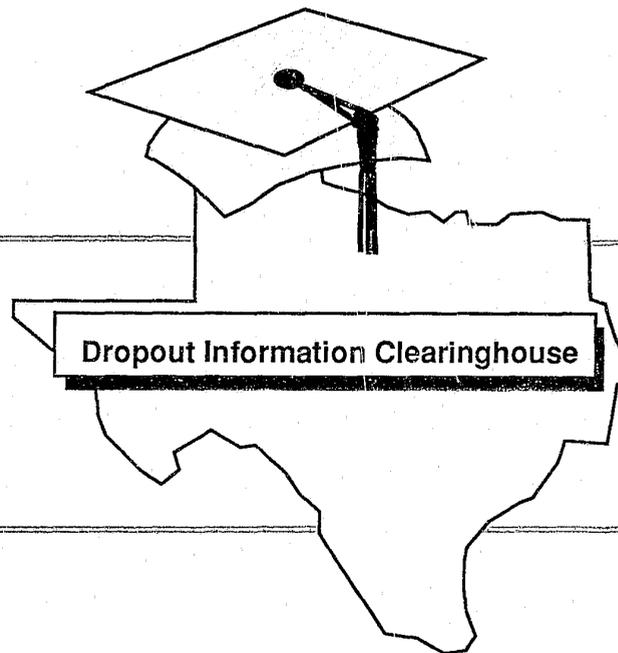


Texas Education Agency
Texas Dropout Information Clearinghouse

Learning Styles of
At-Risk Youth:
A Schoolwide Study Skills
Program

"Information is a Key to Dropout Prevention"



150943

NCJRS

NOV 7 1994

ACQUISITIONS

Learning Styles of At-Risk Youth: A Schoolwide Study Skills Program

Practitioner's Guide Series Number Six

150943

U.S. Department of Justice
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this [redacted] material has been granted by

Texas Education Agency

to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the [redacted] owner.

After the original free distribution to authorized institutions, additional copies may be purchased for \$2.00 by contacting the Publications Distribution Office, Texas Education Agency, (512)-463-9744; however, with the increasing demand for educational material, the supply at times may be exhausted.

Acknowledgement

This practitioner's guide was developed by Drs. Gayle and Don Smith of Western Education Inc., Mesa, Arizona, under contract with the Texas Education Agency Dropout Information Clearinghouse. Katherine Staples of Austin Community College served as project editor. Funding was provided by the Texas Education Agency and a resource assistance contract with the Texas Department of Commerce.

This guide is not copyrighted. Permission to reproduce its contents is granted. Please credit the Texas Education Agency.

Project Staff

Texas Dropout Information Clearinghouse
Texas Education Agency

Sylvia Garcia
Division Director
Program Planning

Daniel Arrigona
Education Specialist
Information Systems

Janet DiVincenzo
Staff Services Assistant
Information Systems

Cathy Cox
Education Program Director
Clearinghouse Coordinator

LaVonne Mason
Education Specialist
JTPA Liaison

Jerry Morse
Education Specialist
Education Liaison

STATE BOARD OF EDUCATION
(State Board for Vocational Education)

MONTE HASIE, Lubbock
Chairman of the State Board of Education
District 15

CAROLYN HONEA CRAWFORD, Beaumont
Vice Chairman of the State Board of Education
District 7

MARY HELEN BERLANGA, Corpus Christi
Secretary of the State Board of Education
District 2

Board Members

BOB AIKIN, Commerce
District 9

GERALDINE MILLER, Dallas
District 12

RAYMOND A. ALEXANDER, Houston
District 4

JANE NELSON, Lewisville
District 11

EMMETT J. CONRAD, Dallas
District 13

RENE NUÑEZ, El Paso
District 1

ROBERT D. CUMMINGS, Houston
District 6

MARY KNOTTS PERKINS, Lufkin
District 8

WILL D. DAVIS, Austin
District 10

JOHN H. SHIELDS, San Antonio
District 5

WILLIAM L. HUDSON, Wichita Falls
District 14

ESTEBAN SOSA, San Antonio
District 3

W.N. KIRBY, Commissioner of Education
(Executive Officer of the State Board of Education)

**Committees
of the
State Board of Education**

PERMANENT SCHOOL FUND

ESTEBAN SOSA, Chairman
BOB AIKIN
MONTE HASIE
WILLIAM L. HUDSON
GERALDINE MILLER
RENE NUÑEZ

LONG-RANGE PLANNING

EMMETT J. CONRAD, Chairman
ROBERT D. CUMMINGS
WILL D. DAVIS
JANE NELSON
MARY KNOTTS PERKINS
JOHN H. SHIELDS

SCHOOL FINANCE

WILL D. DAVIS, Chairman
BOB AIKIN
ROBERT D. CUMMINGS
WILLIAM L. HUDSON
ESTEBAN SOSA

STUDENTS

GERALDINE MILLER, Chairman
RAYMOND A. ALEXANDER
MARY HELEN BERLANGA
MONTE HASIE
JANE NELSON
MARY KNOTTS PERKINS

PERSONNEL

CAROLYN HONEA CRAWFORD, Chairman
EMMETT J. CONRAD
RENE NUÑEZ
JOHN H. SHIELDS

PREFACE

This document is the sixth in a series of **Practitioners' Guides to Dropout Prevention**, developed by private consultants under contract with the Texas Dropout Information Clearinghouse. The Clearinghouse, which is part of the Texas Education Agency Division of Program Planning, was established by House Bill 1010 to create an information forum for service providers who are working together in the area of dropout prevention and recovery.

The purpose of this guide, **Learning Styles of At-Risk Youth: A Schoolwide Study Skills Program**, is to provide an overview of a schoolwide study skills program which accommodates individual student learning styles. This material is presented to inform practitioners of this approach, rather than to mandate local policy and programs. Effective dropout reduction programs are designed to solve specific problems and to address the needs of particular at-risk and dropout populations. Individualized assistance to meet the unique requirements of each at-risk student and dropout can only be developed and implemented at the local level. For further information or assistance, please contact the Texas Education Agency Dropout Information Clearinghouse, NHP Building, 1609 Shoal Creek Boulevard, Suite 200, Austin, Texas, 78701, (512) 463-9633; or the Texas Education Agency Division of Program Planning, 1701 North Congress Avenue, Austin, TX, 78701, (512) 463-9512.

TABLE OF CONTENTS

<u>Title</u>	<u>Page Number</u>
I. Introduction	1
II. The Schoolwide Study Skills Model	5
III. Study Skills Teaching Methods	5
IV. Implementation of a Schoolwide Study Skills Program	21
V. Conclusion	23
VI. Glossary of Terms	24
VII. References	25

INTRODUCTION

Overview And Purpose Of This Document

The purpose of this guide is to help practitioners address the needs of dropouts and students at risk of dropping out of school by describing a schoolwide study skills program which accommodates the learning styles of these individuals. **Perceptual learning styles** and **cognitive learning styles** are the focus of this program. For the convenience of the reader, special terminology (which appears in boldface type) is defined in a glossary on page 16 of this document.

For many at-risk students, the cycle of educational failure begins early. However, the problem becomes more acute at the secondary level for two reasons. First, the instructional delivery system and the **perceptual learning styles** of individual students may not match. Students at the secondary level seem to be more **visual** in their learning preference, or may have mixed **modalities** (Barbe, et al, p. 262-6). Yet teachers at this level tend to be more **auditory** in their presentation, often utilizing a lecture method of instruction.

Also, the demands of secondary school curricula differ significantly from those at the elementary level. Secondary education teachers introduce and teach academic subjects which contain extensive, detailed content areas. It is commonly assumed that by the time students have reached the secondary level, they have mastered the skills introduced at the elementary level -- reading, writing, spelling, mathematics - well enough to apply them at a higher level (Calley and Deshler, 1979). However, secondary instructors also demand utilization of a much broader set of learning skills such as critical thinking, organizational skills, listening, test-taking, and **mnemonic** strategies. Yet, it is not certain when or if these cognitive skills are ever taught or learned. The lack of systematic instruction in the use of cognitive learning strategies may contribute to the cycle of academic failure for many at-risk youth.

Learning Styles of At-Risk Youth

Before specific strategies to assist at-risk youth are explored, the **cognitive learning styles** of these individuals will be described. First, as a comparison point, the term "successful learners" will be used in this document to mean those students at the secondary level who are able to receive information using all **modalities: auditory, visual, kinesthetic, and tactile**. For example, they may be visually-oriented, but they are able to compensate when a teacher's delivery style does not match their learning style.

By using their **cognitive learning styles**, successful learners devise plans of action that allow them to systematically gather information, reducing confusion and thereby increasing their chances for academic success. Such learners typically learn more from each session of instruction than do their less successful classmates. As a result, successful students accumulate large amounts of information and possess a rich knowledge base of vocabulary and basic facts. This knowledge base allows successful students greater autonomy in learning.

On the other hand, at-risk youth often cannot compensate for a mismatch of their personal learning style preferences and their instructor's teaching style. In addition, at-risk youth may not behave appropriately in order to compensate for this **perceptual disability** by asking the instructor to repeat, slow down, or present more **visual** cues.

Weak **cognitive learning styles** represent special problems for at-risk youth. These students often approach complex problems in a disorganized fashion and solve them with a great deal of effort, if at all. Research in this area has shown that many individuals with learning problems can be characterized as inactive learners (de Bettencourt, 1987). Their academic performance problems may not stem from a limited learning capacity, but rather from a failure to apply efficient learning strategies (Torgeson, 1979). For example, poor readers are less likely to use a learning strategy such as categorization. As a result they recall information less accurately (Torgeson, 1979). They are also deficient in comprehension monitoring (the ability to evaluate one's level of comprehension of incoming messages). This inability to apply learning strategies to academic tasks may be due to a lack of awareness of what these strategies are, as well as a knowledge of when and how to use them.

In conclusion, at-risk youth are often at a disadvantage in the classroom because of the mismatch between their **perceptual learning styles** and the predominant teaching styles of their teachers. Unfortunately, they are not able to compensate for this mismatch. Their **cognitive learning styles** also prevent them from approaching a learning task in a systematic, planned, and efficient manner in order to acquire the information needed for academic success. Finally, they may not be assertive enough to ask instructors for additional assistance.

Current Programs and At-Risk Youth

Traditionally, school systems have attempted to address the needs of at-risk youth by establishing special programs such as remedial reading, special classrooms for low-achieving students, and alternative schools for potential or actual dropouts. These are primarily pullout programs which have attempted to remediate the student who could not learn in a regular classroom setting.

In order to place at-risk students into these types of programs, there has been an effort to categorize them based on achievement and/or behavioral measures. Rules and regulations at the federal and state level often require classification of students to determine funding levels as well as personnel certification (Gartner, 1986). Philosophically, such classification is considered a necessity in order to monitor the educational services being provided. However, classification and labeling may not always be the most suitable approach, especially for monitoring individual students (Stainback and Stainback, 1987). Additionally, although many special programs have been established to provide equal educational opportunities, many of these programs have been developed without the use of research data on at-risk youth (Calley and Deshler, 1987).

Unfortunately, many of the solutions employed to date have sought to adjust the at-risk student to the educational system rather than to make adjustments in the system itself. Students who do not fit the educational mainstream may be diverted into pullout programs, low-tracked classes, or remedial reading. It may appear easier to remove students whose learning styles do not fit the traditional classroom than to adapt instructional behaviors to meet individual student needs.

One shortcoming of the pullout approach is the fact that it serves a relatively small percentage of the student population. For example, one study reported that the prevalence of secondary level students with identified disabilities was 5.9% (Halpern and Benz, 1987). A second is that there are only a limited number of pullout programs available. Third, school systems only have a limited amount of resources to devote to at-risk students. For example, principals may have available only a small number of teachers who can allocate a certain portion of their time to support programs such as remedial reading.

Also, superintendents can only allocate a certain amount of funding for alternative high schools.

Many students who do not receive special services are still in need of assistance. However, if they do not fall into specific categories according to available assessment data, they may not receive these services. Many go on to drop out of school.

To date, the issue of which programs are most effective for which at-risk students has not been settled. Continuing to try to remediate students by placing them in pullout programs is not always successful. Instead, new program designs and innovative teaching can be provided in the classroom to better accommodate the learning styles of all students, including those at risk of dropping out of school.

School systems can be modified with the strategies outlined in this document to address the needs of a wide range of at-risk students and dropouts. Research indicates that the most effective programming is that which provides teachers with methodologies that can be used to adapt instruction for all students, including those students who are at risk of nonpromotion or dropping out of school (Madden and Slavin, 1983).

To summarize, strategies are needed which address the following issues: 1) at-risk students often do not have the learning skills to benefit from regular content instruction, 2) teachers may not have access to strategies to modify their instructional procedures to accommodate students with learning problems, and 3) teachers may not have access to strategies that will meet special students' needs and learning styles (Halpern and Benz, 1987).

These issues can be addressed by applying identified and proven teaching/instructional styles within a schoolwide study skills program. First, enhancing student skills will be facilitated by the refinement and use of instruction on cognitive learning strategies. Teachers can make their instructional delivery more effective for a greater number of students. They also can model and provide direct instruction on such learning skills as note-taking and effective listening and study skills. These skills apply to all course content areas. Second, recent research indicates that teachers with special training and resources related to learning styles can successfully adapt instructional practices to meet a wider range of student needs (Stainback and Stainback, 1985). Third, teachers can meet individual student needs if they are given practical teaching methodologies which are effective for all students.

Study Skills

The term "study skills" is used synonymously in this document with "cognitive strategies" or "learning strategies." It is defined as instructional methodologies which encompass three types of cognitive questions:

- **First:** Which teaching methods will make materials and information more learnable? (Presley and Symons, 1987)
- **Second:** Which teaching methods will teach specific study skills that will transfer to all content areas? (Presley and Symons, 1987)
- **Third:** What must the student know in order to choose and use a study skill wisely and independently (Levin, 1986)? This process, called **metacognition**, refers to training students to "talk to themselves" about which

skills best fit specific study tasks or "learning how to learn" (Derry and Murphy, 1986).

Development of a Schoolwide Study Skills Program

An effective schoolwide study skills program will be presented in this document which implements teaching strategies that accommodate the **perceptual learning styles** of a wide range of students so that maximum learning takes place. This program also maintains individual teaching styles. Teachers will feel that their academic standards for awarding grades are not compromised as a result of this program. The program design can also help support curriculum standards.

A schoolwide study skills program is successful in these areas for several reasons (Smith, 1987). First, it utilizes instructional strategies which can help to accommodate perceptual and **cognitive learning styles**. These methods are generic and can be utilized in all content areas. Such strategies allow teachers to present lessons based on research on how the brain most effectively receives and remembers information. Next, this methodology provides students with direct instruction in study skills, so that they learn **how** to learn. Since at-risk students are often particularly **strategy-deficient**, they benefit significantly from this type of instruction. A schoolwide study skills program also maintains the integrity of instructors' individual teaching styles and does not sacrifice course content teaching time.

The schoolwide study skills model described herein is based on research which strongly supports a **cross-curricular** approach (Gagne, 1984) in which all of the teachers in a school are trained in discrete instructional strategies. This cross-curricular approach facilitates the **transfer** of study skills to each course in which students are enrolled. Students learn specific skills in each class and then receive guided practice in applying the skills to fit different kinds of learning tasks. For example, students learn a notetaking format called "mapping" in all of their courses. In English, the teacher shows students how to use the format as a prewriting exercise. A mathematics teacher shows them how to use "mapping" to show the steps in solving word problems. Thus students are shown how to apply the same procedure in many ways to fit different learning tasks. In this way, the schoolwide study skills model allows teachers to present various study skills in all content areas. It also allows them to provide students with adequate time for guided practice and study skills application.

"Study skills" also refers to a number of activities necessary for success in any academic setting. This domain includes classroom skills such as coming to class with pencil and paper, writing down homework assignments on a calendar, turning in all homework, and paying attention in class, as well as the skills needed to acquire, store, and express information.

THE SCHOOLWIDE STUDY SKILLS MODEL

The schoolwide study skills model is appropriate for all grade levels, especially secondary school levels, since it is practical and easy to implement. Although teachers must cover a significant amount of information in their required curricula, the study skills teaching methods described in this document can enhance their teaching effectiveness.

Teachers participating in the schoolwide study skills model are trained in the following areas:

- Organization/Time Management Skills,
- Notetaking Skills,
- Memory Skills,
- Test-Taking Skills,
- Reading in Content Areas,
- Vocabulary Development, and
- Listening Skills.

Teachers are also shown how to incorporate these skill areas into their objectives without taking class time away from direct instruction.

Teachers receive additional instruction in how to incorporate each skill area into a specific course content area. Teachers in such core academic areas as English, social studies, science, and mathematics can easily apply the methods described in this document. However, teachers in other content areas such as industrial technical education, business, physical education, art, home economics, or the performing arts can also creatively incorporate these methods into their instructional strategies.

STUDY SKILLS TEACHING METHODS

This section discusses each of the schoolwide study skills program teaching methods. Classroom examples in various content areas will also be discussed in order to demonstrate how each of the following issues are addressed:

- making information more learnable,
- teaching for skill transfer, and
- achieving metacognition.

Organization/Time Management

Teachers in this program learn to develop study skills in three content areas:

- teaching students to be organized within the classroom,
- developing a schoolwide study skills program, and
- involving parents in their child's academic achievement.

First, teachers can teach students to be organized in classroom behaviors by using an assignment calendar, bringing materials to class, using a three-ring notebook to keep notes, returning assignments and tests, planning long-term projects, and using daily planning lists. Teachers can also show students how to make conscious decisions about using their time by establishing priorities and setting due dates.

Next, the logistics for the schoolwide program are developed and implemented. Schools decide on a uniform notebook package -- for example, a three-ring binder, plastic pocket pouch, subject dividers with tabs, highlighter pen, and two pencils. They also commit to monthly notebook checks (to purge old assignments, reorganize papers, and check for neatness), weekly assignment calendar checks (to verify neatness and completeness), and use of a uniform heading for assignments (such as name, date, period, class, and assignment title).

The last component of the organization/time management training component instructs teachers in how to get parents more involved in their child's academic success. Teachers learn how to make parents more aware of the schoolwide study skills program through newsletters which give programmatic information, tips to help children study at home, and ways to reinforce organizational skills at home. Also, teachers in this program learn how to conduct evening parent training sessions throughout the school year. These sessions teach parents how to support the school's study skills program, how to help their children set up and commit to study/homework schedules, and how to help their children study for tests.

Notetaking Skills

In notetaking skills training, instructors learn that notetaking is a skill that is usually not directly taught in the classroom. Notetaking actually consists of a wide range of skills including determining the difference between main ideas and details, abbreviating, determining the organization of a lesson, writing down key words and short phrases, organizing information in a consistent format, and discriminating important from unimportant information. Students need direct instruction and guided practice in order to effectively master notetaking skills.

Next, teachers learn to present course content information by utilizing various notetaking formats such as main idea/detail, mapping, and framed outlines. See Figure 1 for several examples of formats in different content areas.

Of all of the study skill areas, notetaking instruction can have the most immediate and positive effect on a school by accomplishing several educational goals. First, instruction on notetaking makes information more learnable by improving teachers' instructional skills. The various notetaking formats provide a means for the teacher to organize lesson objectives and ensure that the information to be learned is presented in a clear, visual mode. Instructional skills also improve because teachers are using multisensory teaching methods.

Framed Outline

American History - Chapter 7
"Winning the War for Independence"

I. Open War

A. _____ & Concord

1. _____ - Revere, Dawes, Prescott

2. _____

a. Major Pitcairn

b. _____

B. Ethan _____

1. _____

2. _____

Summary :

Main Idea/Detail

Main Ideas

Details

Protists

- have a nucleus
- some are single-celled
- can be multicellular
- some plant, some animal characteristics

Examples of protists

- 1) Euglena
- 2) Golden algae
- 3) Fire algae
- 4) Sporozoa
- 5) Amoeba

Terms Botany

- study of plants

Mapping

Short Story Elements

Setting

Characters

Style

Point of View _____
Mood _____
Tone _____
Symbolism _____
Flashback _____

Plot

Theme

M
E
A
N
I
N
G

Mix and Match

5 Steps of Throwing A Potter's Wheel

Beginning Ceramics

Name _____ Per _____

	Notes	Main Concepts
1. <u>Mastering</u>	-pin tool, wire, sponge, water -secure position	Secure clay onto the wheel
2. <u>Centering</u>	-wedging w/ both hands, bring clay up, centered	Wedging clay onto wheel, perfectly centered
3. <u>Opening</u>	-take thumbs down -elbows on hips -rt. hand into ctr.	Making opening in pot
4. <u>Lifting</u>	-outside fingers to life up, cylinder is made, walls 3/8"	Smoothing outside w/ fingers & make it taller
5. <u>Finishing</u>	-trim lip of pot -sponge, smooth -w/pin tool carve	Smooth, cut lip, cut off of wheel

Figure 1
Notetaking Skills
Format Examples

For example, instruction can be provided with an overhead projector or chalkboard, visually presenting information in a well-designed format. An **auditory** (lecture) presentation to accompany the notetaking format can also be used. **Kinesthetic** abilities are also utilized as students write down information. This type of multisensory teaching responds to the widest range of student learning style preferences, so that all students are able to understand what is being taught.

Presenting information in all of these formats provides a practical means of implementing the principles of learning, ensuring more active class participation (Hunter, 1983) by involving more students in the lesson. For example, the "framed outline" notetaking format calls for a written summary at the end of each lesson. Students summarize their learning in this section, thereby allowing the teacher to achieve effective closure (Hunter, 1983). All of the students are thus involved in summarizing, rather than the teacher or only a few.

The acquisition of notetaking skills ensures success, which is the "future motivation" principle of learning (Hunter, 1983) for all students. The feeling of success in turn increases students' feelings of competence as learners. Moreover, absent students can more easily obtain a complete set of notes from the teacher or another student.

Notetaking training provides skills which **transfer** to many content areas. For example, students may learn the main idea/detail format in a lecture in a science class, but they can also **transfer** the same notetaking format to a social studies assignment.

Notetaking also improves teachers' classroom management skills. Disruptive students are less likely to experience academic success. When information is presented in a structured manner, students are more easily engaged in a successful learning experience and thereby less likely to cause discipline problems. Utilization of notetaking formats thus increases time on task for many students.

Memory Skills

Training in the utilization of memory skills teaches students how the brain works and gives them specific strategies to code information in order to enhance their own memory. Students come to realize that their "memory" is in fact a distinct set of skills (Higbee, 1977), which are both teachable and learnable (Devine, 1981). However, memory skills must be taught within a curriculum which supplies a context for practicing them (Gagne, 1984).

For example, an English teacher used a memory skill called "acronyms" to teach 23 linking/helping verbs. She combined the phrase, "CHAD B. SWIM is 23 years old," to teach the list of verbs. The 23 verbs in the sentence were classified into groups of words which start with the letters in the name CHAD B. SWIM.

- C could can
- H have has had
- A am are
- D do does did
- B be been being
- S shall should
- W was were will would
- I [^]is
- M may might must

The teacher explained that she developed this "acronym" or "memory word" to help her remember the list of verbs. She grouped the information into small learning chunks and then arranged these chunks around letters. This teacher made her lesson more memorable and learnable. She also provided direct instruction on how to use a specific memory skill.

In order to facilitate **transfer** of the "acronym" strategy to another academic setting, the teacher followed up the next day during a lesson on poetic devices. She wrote four poetic devices, Metaphor, Simile, Personification, and Onomatopoeia, on the chalkboard. The students arranged the four poetic devices according to their first letter and devised the word "POAMS." They were quite proud of themselves because they utilized the memory skill which they had been taught on the previous day. This feeling of success and skill transfer is important in the development of **metacognition**, or learning how to learn (Derry and Murphy, 1986). Students need to develop a positive attitude about using the skills or transfer will not occur.

Figure 2 shows other examples of how memory skills can be applied to various content areas.

Chaining

Biology - Classification

Kingdom

Phyllum

Class

King Phillip Called On

Oder

Family

Friday, Gone Skiing.

Genus

Species

Acronyms

Algebra - Steps in Solving Inequalities -SAM

Method

Problem:

$$12n - 7 + 8n > 23$$

1. Simplify

A. Get variable
one 1 side.

B. Combine like
terms.

$$12n - 7 + 8n > 23$$
$$20n - 7 > 23$$

2. Addition
property

$$20n - 7 > 23$$
$$\quad +7 \quad +7$$

$$20n > 30$$

3. Multiplication
property

$$20n > 30$$
$$\frac{1}{20} 20n > \frac{1}{20} 30$$
$$n > \frac{30}{20}$$
$$n > \frac{3}{2}$$

Figure 2

Memory Skills Application to Content Areas

Test-Taking Skills

The concept of test-taking skills encompasses two components: the teachers' test-writing skills and the students' test-taking skills. In the first component, teachers in the schoolwide study skills program learn how to enhance their classroom test scores by improving the physical design of tests. They are taught specific rules to follow, which include the following:

- Make sure test copies are visually clean. This ensures that tests are not in fact visual discrimination exercises. Make sure that tests do not contain typographical errors. When teacher corrections are evident on tests, they raise at-risk students' anxiety levels.
- Use wide margins and double-space between questions to make tests easier to read.
- Write multiple choice options in vertical rather than horizontal order to allow students to scan answers more easily.
- Make sure that multiple choice answer stems are no more than three lines long, since lengthy choices may create confusion.
- Group "matching" questions into sets of no more than ten questions to reduce the time it takes to complete the test.

Figure 3 is an example of a test BEFORE and AFTER study skills training.

Teachers in the schoolwide study skills program are also taught how to improve the clarity of individual test questions. Here are some rules to follow:

- Do not use double negatives in true/false questions, since double negatives test a student's reasoning ability, not knowledge.
- Arrange matching question options in some logical order such as chronological, alphabetical, or numerical order. This makes tests easier to scan and reduces item completion time.

Teachers can also learn how to write questions at various skill levels. Teacher-designed tests are usually written at a literal level of interpretation. However, students' thinking skills can be expanded when they answer questions written at a higher cognitive level.

It must be noted, however, that students must first be taught how to answer higher level questions. For example, all tests, regardless of content area, should include essay questions. Teachers can learn to teach students to answer essay questions by using the essay map in Figure 4, a prewriting tool which shows students how to organize their thoughts before writing.

Teachers in the schoolwide study skills program also learn alternative testing methods for students who are at risk of academic failure. These students often have difficulty reading a test, writing their thoughts clearly, having enough time to finish, or coping with test anxiety. Therefore, several testing alternatives are suggested: cooperative learning group tests, oral tests, giving at-risk students two periods instead of one to take the test, class projects instead of written tests, and open book tests. Teachers can help ensure greater

BEFORE

Chapter 8 Test

1. A "government of laws, and not of men" means that
1. certain rights are part of the written laws
2. the law, not the opinion of an official, will decide the issues
3. the law gives the same rights to everyone
4. all of these
2. Which of these democratic ideas was not incorporated into many of the new state constitutions after the Revolutionary war?
1. bill of rights
2. separation of church and state
3. limit on the power of the executive department
4. universal voting privileges
3. Under the Articles of Confederation, the central government consisted of a Congress in which each state had
1. votes proportionate to its size
2. votes proportionate to its population
3. one vote
4. seven votes
4. In the government under the Articles of Confederation
1. the states were the final authority
2. Congress enforced its will by use of the power of taxation
3. the central government exercised most of the power
4. consent on the part of the majority of the states was necessary for amending the Articles

AFTER

Chapter 8 - Test

Directions: Multiple Choice: Mark the letter of the correct response on your answer sheet.

1. A "government of laws, and not of men" means that:
a. Certain rights are part of the written laws
b. The law, not the opinion of an official, will decide issues
c. The law gives the same rights to everyone
d. All of the above
2. Which of these democratic ideas was not incorporated into many of the new state constitutions after the Revolutionary War?
a. Bill of Rights
b. Separation of church and state
c. Limit on the power of the Executive Department
d. Universal voting privileges
3. Under the Articles of Confederation, the central government consisted of a Congress in which each state had:
a. Votes proportionate to its size
b. Votes proportionate to its population
c. One vote
d. Seven votes
4. In the government under the Articles of Confederation:
a. The states were the final authority
b. Congress enforced its will by use of the power of taxation
c. The central government exercised most of the power
d. Consent on the part of the majority of the states was necessary for amending the Articles.

Figure 3

Test-Taking Skills

Examples of BEFORE and AFTER Study Skills Training

Name _____

Period _____ Date _____

"Map" for Essay Questions

What is the question asking me to do?

Supporting
Details

Supporting
Details

Topic Sentence

Supporting
Details

Concluding
Sentence:

Figure 4
Test-Taking Skills
Essay Map

academic success for at-risk students when they have a variety of options to help these individuals succeed.

Teachers in the schoolwide study skills program also learn how to teach students to be better test-takers. First, they learn how to instruct students on test preparation. These study skills include organizing the material to be studied into small learning units, using memory devices, and preparing study tools. Second, students learn the PACER test-taking method. PACER is an acronym for important tips about test taking. Each letter stands for an important test-taking tip:

Preview the test.

Arrange your time.

Look for Clue words

Do Easy questions first.

Review the test before handing it in.

In summary, test-taking instruction for teachers accomplishes two goals. First, it gives them skills in writing effective tests. Second, it provides students with concrete skills for taking tests which they can then transfer to tests in any course content area.

Reading in Content Areas

Elementary school classes include instruction in reading skills such as comprehension, speed, choosing main ideas from details, and recall. Unfortunately, because many at-risk students do not have these skills, they cannot keep up with reading assignments.

Training classroom instructors to teach reading skills involves establishing an awareness of the specific skills necessary for success in each content area, identifying the reading process relative to reading for content, and providing direct instruction in specific reading skills. These activities can be accomplished without sacrificing course content teaching time.

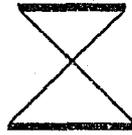
Teachers list the kinds of reading materials used in their classes and then identify the specific reading skills necessary for success. Since every discipline requires higher level reading skills, teachers should provide instruction in reading skills in all of their lessons.

Teachers can successfully use the effective, practical, and easily-implemented methods discussed in this guide. For example, since reading for the main idea and supporting details involves abstract reasoning, teachers should make this skill both concrete and visual. In the paragraph pattern strategy (Williston, 1974) students identify the topic sentence or main idea statement in each paragraph. Next, they draw one of five patterns next to the paragraph to designate where in the paragraph they found the main idea statement if the paragraph has one. After they've accomplished this task, all of the main ideas are identified and the supporting details follow. An example is given in Figure 5.

Once students master this paragraph pattern strategy, they can progress to "mapping," a method which entails taking notes from reading materials. In mapping, students are asked to make a visual picture of the way information is organized in a text, which teaches and

ILLEGAL BUSINESS

Consumer fraud is crime with a business-like mask. It seems so much like a legitimate transaction that the victim doesn't recognize what is happening.



Consumer fraud is one of the crimes against property. As in other such crimes, the victim is deprived of money or possessions. Instead of using a gun, the weapon or tool of the criminal is fraud, a material (significant or large) misrepresentation. These are crimes of deception, scheming, or trickery.



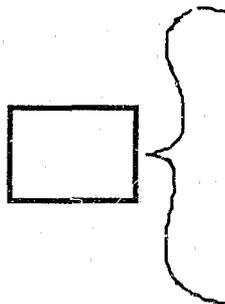
Such consumer fraud has the appearance of normal business operations. It can be difficult to determine where normal business ends and fraud begins. Basically, in all business dealings, people are expected to respect their commitments. If a business commits to make you a product for a certain amount of money, delivery must be made as promised. And the product must perform as advertised.

LEGITIMATE ENTHUSIASM



Sometimes businesses may make false statements without committing fraud - if there is no intent to deceive. Nearly everyone expects businesses to overstate the qualities of products. If a salesperson says, "This the best television on the market today," the statement may be called puffery, or advertising overstatement. Puffery is noncriminal and it reflects sales enthusiasm.

PAPER TRIP TO PRISON



Probably most of us at one time or another pretend to be older than we are, or to have an assumed name. One operator played on this fantasy.

If you would send an identification photograph along with \$5, you would receive a fake ID with your picture attached. You could select the name and age to be printed on the ID.

Figure 5
Reading in Content Areas
Identification of the Main Idea(s)

reinforces both main ideas and supporting details. Figure 6 gives an example which shows how a student progressed from the "paragraph pattern" strategy to "mapping." He then wrote a summary paragraph from the map.

It is interesting to note that this student stated that writing the summary was the easiest part in this process. However, before he learned "paragraph patterns" and "mapping," the student found writing summaries to be a difficult and tedious task. A specific strategy made summary writing much easier for him.

The schoolwide study skills program gives teachers strategies to teach study skills, terms to label study skill strategies by name, and strategies to modify and adapt their instruction in order to develop all areas of student skills.

Vocabulary Development

Language development requires more than learning new meanings or looking up words in a glossary or dictionary. Acquisition of new vocabulary words entails teaching students to deduce the meaning of terms by examining word structure or context, then using a dictionary to verify the meaning they have derived, and applying them in written or spoken contexts (Herber, 1987).

Vocabulary development is often taught with worksheets that ask students to look in a glossary and write definitions, solve word search puzzles, or solve crossword puzzles. However, these activities often do not teach students how to discern word meanings independently.

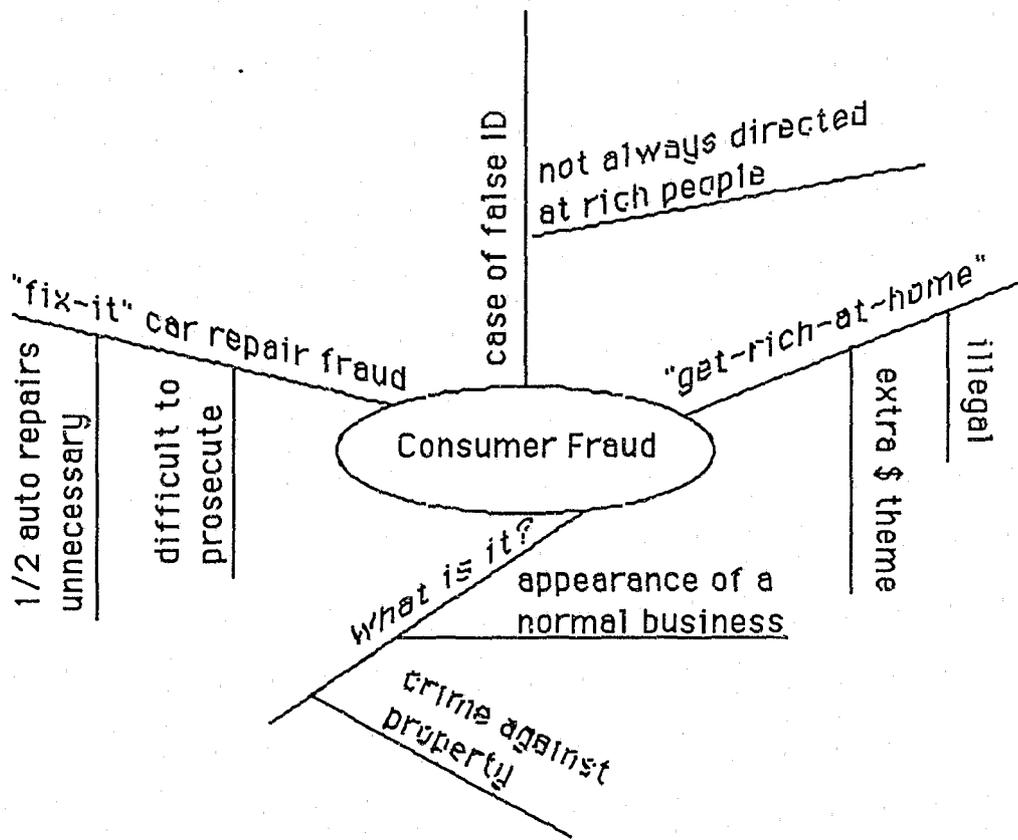
Instead, teachers can raise the cognitive skill level of vocabulary development activities and learn to teach students to become independent in developing their vocabulary through the applications described in this document. Such training facilitates higher level activities such as categorization, analogies, vocabulary mapping, and meanings based on structural clues. Figure 7 gives several examples of these activities.

Listening Comprehension

While the importance of effective listening to the learning process is acknowledged, few teachers have received formal instruction in this area. Although listening instruction is currently receiving greater academic emphasis, it often remains the "orphan" of the language arts (Wolvin and Coakley, n.d.). One of the goals of the schoolwide study skills program is to move effective listening into the public education curricula.

Training in listening skills is based on several philosophical tenets. The first is that listening can be taught (Devine, 1981). The research in this area is irrefutable -- direct instruction in listening skills improves listening ability. The second tenet is that listening is not simply "paying attention." (Wolvin and Coakley, n.d.). It is a set of skills much like reading, writing, or mathematics. Like these areas, effective listening requires instruction. Third, listening is related to cognition (Wolvin and Coakley, n.d.). Many of the operations involved in listening, especially higher cognitive level listening, are mental operations that can be taught. Such operations include listening to determine fact from opinion, listening to determine the speaker's purpose, and listening for main ideas.

The schoolwide study skills program includes a scope and sequence of listening skills which are broken down into two basic categories: literal level listening skills and critical



Consumer fraud is a crime against property that gives the appearance of a normal business, but it's not. It's not necessarily directed at people with a lot of money. The "get-rich-at-home" scheme plays on people's desire to earn extra money. Another scheme is the "fix-it" scheme in which unnecessary auto repairs are performed. This scheme is very difficult to prosecute.

Figure 6
Reading in Content Areas
Mapping

Vocabulary - Structure Clues

Directions: Define the following terms by defining the parts that make up the words.

1. Carbohydrate: carbo = _____
 hydra = _____
 definition: _____

2. dehydration synthesis: de = _____
 hydra = _____
 synthesis = _____
 definition: _____

3. hydrolysis: hydro = _____
 lysis = _____
 definition: _____

Vocabulary - Categorizing

Directions: List the following words/phrases in the correct category.

crime	civil law	criminal law
civil suit	misdemeanor	consumer
felony	divorce	status offense
contract	Miranda rights	breach
pardon	credit	parole board
lawsuit	parole	acquittal
will	grand jury	indictment

Criminal justice	Civil justice
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Figure 7

Vocabulary Development

Examples of Vocabulary Development Through Activities Involving Structural Clues and Categorizing

level listening skills. The former category encompasses such skills as listening for main idea and details, correct sequencing of information, depicting cue words, and auditory memory skills. The latter category includes such skills as listening for bias, determining a speaker's attitudes, and acquiring cues from nonverbal language.

Teachers can learn to incorporate both literal and critical listening instruction into their everyday classroom lessons. For example, in an activity called "Vocabulary Bingo," teachers can reinforce a literal level listening skill called "listening for clue words." In this activity, teachers ask students to write vocabulary words in a bingo square. The teacher reads aloud the individual definitions of words. If students think they have a word matching a definition written in one of their bingo squares, they mark it with an "x." The game continues until one or more of the students marks out a row of squares. The teacher thus accomplishes two goals, teaching a listening skill and reviewing vocabulary words.

Teachers can directly affect students' listening skills by providing consistent listening instruction in a schoolwide study skills program.

Achieving Metacognition

An integral part of the schoolwide study skills program consists of showing teachers how to train students in the development of their metacognitive information-processing abilities. To accomplish this task, students must perform the following activities:

- learn study skills,
- make decisions about which skills fit a particular task,
- mentally review the steps involved in each skill, and
- decide if particular skills are effective.

Here is an example of a student utilizing this metacognitive process:

A reading assignment is given in a Social Studies class in which students are told to read an article and write a summary. One student skims through the article to see how long it is, how long it will take to read, and how the information is presented by the author. He determines which study skill he will use to complete the assignment in the shortest amount of time. He wants to do a good job, but he also realizes that his time is limited. The student then considers the different strategies he has learned: paragraph patterns, mapping, and the main idea/detail format for taking notes on reading material. He decides that the best way for him to organize information in a reading assignment is by taking notes, using the idea/detail format. He also recalls that taking notes in this way helps him to organize his thoughts for any future writing assignments as well. He will also be able to set up his paragraphs because the main ideas show suggestions for topic sentences. First, he reviews the steps he'll use. He reads the article through once, before going back to take notes. He knows that reading and then rereading helps him in two ways. First, he better remembers what he reads. Second, it's faster for him to take notes during the second reading than the first. If he takes notes during the first reading, his train of thought will be interrupted because he does not know what's coming up next in the reading. So, he reads the article, rereads it, takes notes, and then writes his summary. His final product is shown in Figure 8.

Main Ideas	Details	Memory Cue
Intro - Roman rule was a mixed blessing	Difference of opinions either 1) Power under guidance of virtue & wisdom 2) Tyranny	
Pax Romana	"Roman peace" --remained for 200 yrs --good aspects of R. rule --effective govt --flexible system of laws --roads -- commercial towns	
Beginnings of Rome Latins Etruscans ↓ good influences	Latin tribes settled on Palatine hill near Tiber Conquered Latins 7 B.C. 1) drained marshes 2) trade 3) archives 4) government	

Figure 8
Achieving Metacognition
Example of a student utilizing the metacognitive process

This example demonstrates how the student used the metacognitive process. It was evident that he:

- had various study skills from which to choose,
- decided upon which strategy was best for this assignment,
- reviewed the steps as he used the skill, and
- evaluated whether this skill was successful.

IMPLEMENTATION OF A SCHOOLWIDE STUDY SKILLS PROGRAM

Setting the Stage for Success

In order for a schoolwide study skills program to be effective, there must be an expressed need. If administrators, teachers, and the community see no reason for instructional change, no change is required. However, if problems -- a high dropout rate, evidence of poor study skills, or inadequate services for students with marginal learning disabilities -- are articulated, this program can be a positive way to address them.

Next, and most important, teachers and administrators must take ownership of the schoolwide study skills program from the very beginning. Every person involved with instruction must make a commitment to the success of the program. Without this support, students will not receive the schoolwide learning that is necessary for skill transfer.

Faculty/staff ownership of a schoolwide study skills program should be developed from the inside out. For example, a high school principal and staff may identify a need to address students' poor study skills. The principal hears about this program and agrees to explore its possibilities by taking it to department heads. The idea is then discussed. Examples of the study skills methods are shown, and the program model is outlined. The administrators clearly and publicly support the program. The leadership team of teachers in turn goes back and develops support for the program with their colleagues. A meeting is held in which the examples and program model are demonstrated. The group may need more time to discuss the idea and identify further concerns that may be addressed through minor modifications in the model. The group meets again to discuss and make a decision.

Teachers should be allowed to define their own professional goals in this program and their ideas should be valued. If administrators impose a study skills program on teachers, or if experts are brought in to train teachers who do not want to be trained, the results will not be positive. The key word in successful implementation of the schoolwide study skills program is ownership.

Training

After the staff has agreed to participate in training, another commitment must be made to guarantee adequate training time. Teachers should have the opportunity to apply each of the study skills in their specific content areas during training sessions. Theorizing alone does not work if teachers are not able to modify their instructional behaviors in the classroom. Just like their pupils, teachers must be given direct instruction and guided practice in applying new study skills.

Resources

The administration must commit resources to guarantee the effective implementation of a schoolwide study skills program, especially in terms of providing adequate staff support for teachers. Teachers are usually more than willing to take the time to redesign and rework their curriculum materials if they know they will receive clerical help with the preparation of the materials.

Another important resource is an on-site Study Skills Coordinator, a faculty member who is assigned two periods per day to assist teachers in implementing the study skills methods. This teacher must be perceived as a leader among his/her peers. The study skills coordinator is not part of the program evaluation team, but rather provides support for program implementation. The on-site coordinator provides many services:

- organizing such schoolwide activities such as the monthly notebook checks and assignment calendar distribution,
- keeping the energy and program visibility level high,
- organizing curriculum development using study skills; that is, meeting with departments to begin cooperative planning/working sessions,
- maintaining ongoing communication with parents,
- assisting with parent training sessions,
- conducting yearly training for new staff members.

These two resources, clerical help and an on-site coordinator, are very important. Even though only two resources are discussed in this section, the possibilities for other resources are limitless. Additional resource ideas can be generated by staff members. The number and kind of resources are limited only by budgetary constraints.

CONCLUSION

The schoolwide study skills program described in this document can help address the learning requirements of all students, including those at risk of not receiving a high school diploma. First, it provides teachers with strategies that accommodate variations in student learning styles. Secondly, it provides students with training in study skills in order to "learn how to learn" and thus achieve academic success. Finally, it establishes a school system more responsive to the needs of a wider range of students. The goal of this program is not to remediate specific at-risk students, but to adapt the educational system as a whole to better meet individual academic needs.

To summarize, the schoolwide study skills program offers many benefits:

- It provides an instructional methodology which teaches students to learn and to manage the study skills (both cognitive and metacognitive) which are necessary for learning.
- It improves teachers' pedagogical skills by showing them practical ways to apply learning principles to classroom instruction.
- It modifies and adapts instruction to meet the needs of all student learning styles by using multisensory teaching methods.
- It can change teachers' attitudes about at-risk students by providing alternative teaching methods which improve achievement through cooperative learning (Johnson and Johnson, 1982).
- It increases students' motivation to learn by providing success, thus improving their self-image as capable learners.
- It promotes skill transfer to all content areas.
- It prevents labelling of students.

The schoolwide study skills program described in this document can help stop the cycle of failure for many at-risk students, by involving all members of the school system: administrators, teachers, students, parents, and community members.

GLOSSARY OF TERMS

Auditory - learning by listening.

Cognitive Learning Styles - learning processes through which students learn most efficiently or comfortably.

Cross-Curricular - useful in any content area.

Kinesthetic - learning through muscle movement (note-taking or verbalizing, for example).

Learning Strategy - the overall plan a student formulates to accomplish a learning task.

Metacognition - knowledge about the processes of studying and learning; knowing when and how to use the processes to fit specific studying or learning tasks.

Mnemonics - memory conventions (such as acronyms, visual imagery, or rhyming).

Modalities - sensory channels through which students learn: auditory, visual, kinesthetic, tactile.

Perceptual Disability - the inability of a student to learn through specific types of sensory channels.

Perceptual Learning Styles - sensory channels through which students learn: auditory, visual, kinesthetic, or tactile.

Strategy-Deficient - a student's inability to know or use methods which facilitate efficient learning.

Tactile - learning through the sense of touch.

Transfer - the ability to apply study skills to any content area.

Visual - learning by seeing.

References

- Alley, G., and Deshler, D. (1979). Teaching the Learning Disabled Adolescent: Strategies and Methods. Denver, CO: Love.
- Barbe, W., Swassing, R.H., and Milone, M.N. (1981). "Teaching to Modality Strengths: Don't Give Up Yet!" Academic Therapy, 16, pp. 262-266.
- de Bettencourt, L.U. (1987). "Strategy Training: A Need for Clarification." Exceptional Children, 54, pp. 24-30.
- Derry, S.J., and Murphy, D.A. (1986). "Designing Systems That Train Learning Ability: From Theory to Practice." Review of Educational Research, 56, pp. 1-39.
- Devine, T.G. (1981). Teaching Study Skills. Boston, MA: Allyn and Bacon.
- Gagne, R.M. (1984). "Learning Outcomes and Their Effects: Useful Categories of Human Performance." American Psychologist, 39, pp. 377-385.
- Gartner, A. (1986). "Disabling Help: Special Education at the Crossroads." Exceptional Children, 53, pp. 72-76.
- Halpern, A.S., and Benz, M.R. (1987). "A Statewide Examination of Secondary Special Education for Students with Mild Disabilities: Implications for the High School Curriculum." Exceptional Children, 54, pp. 122-129.
- Herber, H.L. (1978). Teaching Reading in Content Areas. Englewood Cliffs, NJ: Prentice-Hall.
- Higbee, K. (1977). Your Memory: How It Works and How to Improve It. Englewood Cliffs, NJ: Prentice-Hall.
- Hunter, M. (1983a). Motivation. El Segundo, CA: Tip Publications.
- Hunter, M. (1983b). Teach More -- Faster!. El Segundo, CA: Tip Publications.
- Johnson, D.W., and Johnson, R. (1982). Joining Together: Group Theory and Group Skills. Englewood Cliffs, NJ: Prentice-Hall.
- Levin, J.R. (1986). "Four Cognitive Principles of Learning Strategy Instruction." Educational Psychologist, 21, pp. 3-17.
- Madden, N., and Slavin, R. (1983). "Mainstreaming Students with Mild Handicaps: Academic and Social Outcomes." Review of Educational Research, 53, pp. 519-6590.
- Presley, M., Johnson, C.J. and Symons, S. (1987). "Elaborating to Learn and Learning to Elaborate." Journal of Learning Disabilities, 20, pp. 76-91.
- Smith, G. (1987). "Facilitating Mainstreaming through a Schoolwide Study Skills Program." Learning Disabilities, 3, pp. 53-54.
- Stainback, S., and Stainback, W. (1985). "Facilitating Mainstreaming by Modifying the Mainstream." Exceptional Children, 52, 144-152.
- Stainback, S. and Stainback, W. (1987). "Integration Versus Cooperation: A Commentary on 'Educating Children with Learning Problems: A Shared Responsibility.'" Exceptional Children, 54, pp. 66-68.

Torgeson, J.K. (1979). "Factors Related to Poor Performance on Memory Tasks in Reading Disabled Children." LD Quarterly, 2, pp. 17-23.

Williston, G.R. (1974). Understanding the Main Idea, Middle Level. Providence, RI: Jamestown.

Wolvin, A.D., and Coakley, C.G. (n.d.) Listening Instruction. Annandale, VA: ERIC Clearinghouse on Reading and Communication Skills.

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

- (1) acceptance policies on student transfers from other school districts;
- (2) operation of school bus routes or runs on a non-segregated basis;
- (3) nondiscrimination in extracurricular activities and the use of school facilities;
- (4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;
- (5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;
- (6) nondiscriminatory practices relating to the use of a student's first language; and
- (7) evidence of published procedures for hearing complaints and grievances.

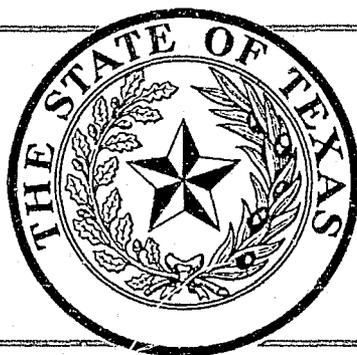
In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.



Texas Education Agency
1701 North Congress Avenue
Austin, Texas 78701
GE0-315-06
Fall 1989