

DOCUMENT RESUME

ED 144 033

CS 003 685

AUTHOR Brandstetter, Glenda; And Others  
 TITLE Precision Teaching for Decoding and Comprehension: Materials and Methods.  
 INSTITUTION Richland School District 400, Wash.  
 SPONS AGENCY Office of Education (DHEW), Washington, D.C.  
 PUB DATE [76]  
 NOTE 33p.

EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage.  
 DESCRIPTORS \*Decoding (Reading); Elementary Education;  
 \*Instructional Materials; Paraprofessional School Personnel; \*Precision Teaching; \*Reading Instruction; \*Reading Skills; Student Records; Teaching Methods  
 IDENTIFIERS Elementary Secondary Education Act Title I

ABSTRACT This publication deals with the classroom use of rate sheets as aids in teaching reading decoding skills systematically and sequentially. The introduction explains the use of rate sheets in presenting a systematic arrangement of instructional cues to which children respond for a standard period of time, and it discusses the original development of rate sheets for use in precision teaching programs. The publication then lists terms used in precision teaching, explains the use of paraprofessionals, tells how to set up student folders, and provides a sample student record sheet. Eleven sample rate sheets are presented for helping children develop skills related to the following areas: consonant blends, consonant substitution, rhyming word parts, variant vowel sounds, affixes, prefixes, word definitions, and heteronyms. (GW)

\*\*\*\*\*  
 \* Documents acquired by ERIC include many informal unpublished \*  
 \* materials not available from other sources. ERIC makes every effort \*  
 \* to obtain the best copy available. Nevertheless, items of marginal \*  
 \* reproducibility are often encountered and this affects the quality \*  
 \* of the microfiche and hardcopy reproductions ERIC makes available \*  
 \* via the ERIC Document Reproduction Service (EDRS). EDRS is not \*  
 \* responsible for the quality of the original document. Reproductions \*  
 \* supplied by EDRS are the best that can be made from the original. \*  
 \*\*\*\*\*

ED144033

U.S. DEPARTMENT OF HEALTH  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

# Precision Teaching for Decoding and Comprehension: Materials and Methods

E. S. E. A. Title I  
Richland, Washington



GLENDÁ BRANDSTETTER, *Title I Reading Specialist*  
CAROL MERZ, *Title I Reading Diagnostician*  
EUGENE DUDLEY, *Title I Coordinator*

5003685

## TABLE OF CONTENTS

Introduction . . . . .	1
Terms for Precision Teaching . . . . .	3
Use of Paraprofessionals . . . . .	5
How to Set Up A Student Folder . . . . .	6
Record Sheet . . . . .	7
Sample Rate Sheets	
Say Words: Consonant blends, s . . . . .	8
Say Words: Consonant blends, random . . . . .	9
See to Mark: Consonant Substitution . . . . .	10
See to Say: Rhyming Word Parts . . . . .	11
See to Mark: Variant Vowel Sounds . . . . .	12
Say Words, See to Mark: Affixes Random . . . . .	13
See to Mark: Identifying Affixes . . . . .	14
Write Words: Prefixes - add "in" . . . . .	15
See to Say: Affixes - Building Words . . . . .	16
See to Say: Defining Words . . . . .	17
See to Mark: Heteronyms . . . . .	18
Bibliography . . . . .	19

## Introduction

Precision teaching grew out of behavioral psychology as a technique to measure learning; behavior was sampled over a period of time and each observation was charted on the standard behavior chart, a semi-logarithmic graph. Increasing frequency of certain behaviors indicated learning and could be used to analyze various reinforcement schedules. By 1971 Phillips and others saw precision teaching as the classroom application of behavior modification.

Precision teachers soon found that much variation in rate of response was due to differences in the way instructional cues were given as children worked in a variety of materials. Thus rate sheets were developed on which instructional cues are standardized and arranged systematically. The arrangement and sequence of instructional cues on rate sheets then became a topic of interest in itself and teachers began to consider the value of rate sheets for skill acquisition, not just measurement.

The instructional methods which we present to you in this workshop deal with the construction and use of rate sheets. These can be used to supplement a wide variety of reading materials and do not constitute a reading program in themselves.

We share with the original precision teachers a focus on frequency of response. We attempt to structure our learning tasks through rate sheets so that children experience increasing daily frequency scores.

We feel increasing daily scores is motivating for the child and try to supplement this motivation with a great deal of verbal praise for gains made. We do not chart on semi-logarithmic scales because our primary concern is skill acquisition, not measurement. For this reason we should perhaps call our process "frequency based skill acquisition" rather than precision teaching. We use measurement only as a tool to enhance teaching and make no claims regarding our preciseness.

## Terms for Precision Teaching

**Precision Teaching:** Standard format instruction characterized by

1. systematic arrangement of instructional cues largely taken from programmed learning.
2. continuous measurement of frequency of correct response for evaluation.
3. careful management of reinforcement contingencies.

**Movement Cycle:**

Task to be attempted by student in one minute such as marking silent letters in a series of words.

**Frequency:**

Number of correct responses per minute of performance.

**Rate:**

Same as Frequency.

**Rate Sheet:**

Sheet presenting systematic arrangement of instructional cues to which the child responds for a standard period of time.

**Aim:**

Frequency or rate set as goal for child; that level of proficiency which the child must achieve in order to retain a skill.

**Mode of Response:**

How the child performs the rate sheet task: can be either oral or written. The following are four standard modes of response.

**Write Words:** Child copies words. Child could be required to make some change, as "add-ing":

go

run

swim

write

**See to Write:** Child sees one word, writes something else, as "synonyms"

big

sea

ship

funny

sick

See to Say: Child sees one word, says something else, as "comparatives"

big \_\_\_\_\_ : fast \_\_\_\_\_ :

high \_\_\_\_\_ : good \_\_\_\_\_ :

See to Mark: Child marks some part of word, as "silent vowels"

boat clean bread time

Reinforcement: Reward the child receives upon completing the task generally verbal praise and encouragement coupled with satisfaction of seeing score increase from previous trial.

**Criterion Referenced**

Test: Test in which the child's performance is measured against a predetermined level of mastery rather than against group norms.

Behavioral Objective: A statement denoting an observable behavior which the student must demonstrate.

## The Use of Paraprofessionals

Since many rate sheets must be administered individually, teachers can use paraprofessionals to give timings and keep records. Teachers can set up files containing sequences of rate sheets and key such sequences to objectives from whatever diagnostic tests or curricular materials are used. The teacher can then prescribe a series of rate sheets by objective number or title rather than prescribing each rate sheet.

Teachers should train paraprofessionals to:

- 1) set up students' individual folders
- 2) administer timings and give much verbal reinforcement for gains made
- 3) keep daily scores, or supervise students' record keeping
- 4) consult teacher when student is about to finish a rate sheet sequence or is not showing expected progress

Teachers must have daily contact with paraprofessionals to discuss problems and guide student progress.

Cross-age tutors, peer tutors, or parent volunteers can also be used to administer daily timings. In this case the teacher or trained paraprofessional should set up folders and check them daily to assure that the student is working in the correct materials and making satisfactory progress. The teacher must be aware of the students' and tutors' constant need for verbal praise or suitable rewards.





Movement  
Cycle

Movement  
Cycle

Movement  
Cycle

Movement  
Cycle

Movement  
Cycle

Name

School

Date

Aim

Aim

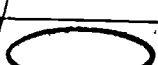
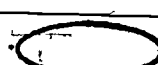
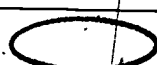
Aim

Aim

Aim



Date



Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SAY WORDS: Consonant blends - sc, sk, sl, sm, sn, sp, st, sw

scat scooter scale scar scold scout scare scooter scar scout (10)

sky skit sky skirt skiff skirt sky skiff skit skirt (20)

slop slide slam slate sled slap slate slide slap slop (30)

small smash smile smoke smug smart smell smoke smug smile (40)

snail snake sniff snort snare snip snag snug snake snail (50)

spoon spell spider space spill span spun spin spider spoon (60)

star still stand stir stun stare stand stun sting still (70)

swing swept sweep swim swell swim swing sweep swell swear (80)

scat scooter scale scar scold scout scare scooter scar scout (90)

sky skit sky skirt skiff skirt sky skiff skit skirt (100)

© Brandstetter, Merz, 1975

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SAY WORDS: Consonant blends, random

prince	cradle	fresh	grand	trail	brick	grape	crash	trouble	friend	(10)
press	flag	clump	bleed	claim	glide	class	black	please	flash	(20)
slant	cry	stand	sweep	flipper	please	swept	small	plain	flat	(30)
slide	snail	clip	spoon	skit	blame	blank	scold	scooter	spell	(40)
blew	glare	pretty	free	sky	branch	swim	snake	plain	please	(50)
blame	green	friend	train	bring	trot	grass	blank	glance	smile	(60)
clump	flute	bridge	spider	blossom	fry	plane	glitter	crash	blow	(70)
class	smile	brand	grew	pry	frame	grape	grub	snare	black	(80)
scooter	swell	star	trap	please	glance	snip	span	branch	blame	(90)
flute	pretty	skit	flipper	bleed	slide	brick	trouble	blew	cradle	(100)

© Brandstetter, Merz, 1975

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SEE TO MARK: Consonant Substitution  
Circle the letter pair which will make a new word.

10

small

st dr ch

drink

fl th sm

bring

ch fr st (15)

all

ink

ing

bring

ch mp st

chick

st ng mp

think

mp ng ch (30)

bri

chick

think

truck

st ch nd

wish

nd mp lk

brag

sm fl th (45)

truck

wish

ag

silk

th ng ch

stick

sm dr th

mop

br sm ch (60)

sil

ck

op

rate

st pr fl

just

ck nd mp

sift

ck mp th (75)

ate

just

sift

drink

mp ft st

whip

ch th ng

cot

rd rn th (90)

drink

whipe

cot

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

See to Say: Rhyming Word Parts

Choose a word from Row 2 that rhymes with each word in row 1.

1 queen      vote      buzz      cake      ram      knock      (18)

2 does      bean      make      goat      sock      lamb

1 learning      sing      bee      loan      rocket      sock      (36)

2 fling      pocket      burning      lock      flea      stone

1 me      lake      toot      sail      rain      bean      (54)

2 steak      male      queen      suit      see      mane

1 beat      read      soap      try      maid      laugh      (72)

2 speed      hope      feet      staff      sigh      fade

© Brandstetter, Merz, 1975

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Correct \_\_\_\_\_ Errors \_\_\_\_\_

SEE TO MARK: Variant Vowel Sounds

Circle word from pair with the same vowel sound as in preceding word.

room	good clue	bounce	cousin fowl	group	few sprout	course	gourd blouse (16)
heard	fur beard	head	beam pet	country	ground fun	love	sun move (32)
gone	fawn bone	look	spoon could	trouble	up out	bowl	told brow (48)
fur	learn true	straight	make right	mew	foe blue	toot	due foot (64)
soap	soot note	shout	plow would	fought	foe paw	course	sought tore (80)
dough	pole should	float	old move	home	move fold	move	sue bone (96)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.  
 Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

1. SAY WORDS: Affixes Random
2. SEE TO MARK: Affixes Random

fresh	refresh	refreshing	refreshed	refresh	fresh	refresh	refreshing	(9)
comfort	comfortable	uncomfortable	comfortable	comfort	uncomfortable			(15)
press	impress	impressing	impressed	press	impress	impressed	impressing	(25)
depress	depressing	depressed	press	depressing	depressed	depressing		(36)
fresh	refresh	refreshing	refreshed	refresh	fresh	refresh	refreshing	(45)
comfort	comfortable	uncomfortable	comfortable	comfort	uncomfortable			(51)
press	impress	impressing	impressed	press	impress	impressed	impressing	(61)
depress	depressing	depressed	press	depressing	depressed	depressing		(72)
fresh	refreshed	comfort	uncomfortable	press	impress	depress	depressing	(80)
refreshing	fresh	comfortable	comfort	press	impress	depressed	impressed	(88)





Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SEE TO MARK: Identifying Affixes

Circle the words in which the underlined part is an affix.

<u>return</u>	<u>painless</u>	<u>export</u>	<u>player</u>	<u>worker</u>	(10)
<u>water</u>	<u>family</u>	<u>disloyal</u>	<u>impure</u>	<u>cheerful</u>	(18)
<u>carry</u>	<u>country</u>	<u>painful</u>	<u>quickly</u>	<u>ugly</u>	(25)
<u>behave</u>	<u>yellow</u>	<u>proudly</u>	<u>rerun</u>	<u>begun</u>	(32)
<u>baggage</u>	<u>alarm</u>	<u>under</u>	<u>polite</u>	<u>hidden</u>	(37)
<u>import</u>	<u>playful</u>	<u>bitter</u>	<u>monkey</u>	<u>sadly</u>	(45)
<u>canary</u>	<u>cheerless</u>	<u>different</u>	<u>worker</u>	<u>impress</u>	(53)
<u>return</u>	<u>velvet</u>	<u>music</u>	<u>hundred</u>	<u>retold</u>	(60)

© Brandstetter, Merz, 1975



Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

WRITE WORDS: Prefixes - Add "im" to each root

proper perfect press polite (32)

pure prison port print (59)

proper perfect press polite (91)

pure prison port print (118)

proper perfect press polite (150)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SEE TO SAY: Affixes- Building Words1

Say th affixed word which corresponds to each phrase.

\_\_\_\_\_ous - filled with \_\_\_\_\_dis \_\_\_\_\_ - not  
V \_\_\_\_\_ment - act or state of being \_\_\_\_\_ or--- one who, thing, which

filled with mountains	filled with danger	filled with poison	(9)		
filled with hazards	filled with humor	filled with fame	(18)		
not obey	not agree	not loyal	not connect	not agree	(33)
not like	not comfort	not appear	not regard	not infect	(48)
act of moving	act of judging	state of agreeing	state of enjoying	(60)	
state of being contented	state of being amused	state of agreeing	(69)		
one who invents	one who protects	one who collects	(78)		
things which reflects	things which projects	one who protects	(87)		

© Brandstetter, Merz, 1975



Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.

Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SEE TO SAY: Defining Words

Say the correct word phrase which tells what each affixed word means.

\_\_\_\_\_ful - filled with      re\_\_\_\_\_ - again

\_\_\_\_\_er - one who      un\_\_\_\_\_ - not

joyful	painful	hopeful	thoughtful	cheerful	(15)
worker	singer	dancer	teacher	reader	(30)
rejoin	rebuild	rerun	reprint	redo	(40)
unhappy	unwilling	unlucky	unequal	unknown	(50)
refill	unfair	shameful	repaint	player	(62)
joyful	worker	untidy	rejoin	unhappy	(74)
painful	singer	rebuild	unwilling	hopeful	(87)
dancer	rerun	unlucky	thoughtful	teacher	(100)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time 1 min.  
 Checked by \_\_\_\_\_ Count \_\_\_\_\_ Errors \_\_\_\_\_ Correct \_\_\_\_\_

SEE TO MARK: Heteronyms

Underline the two words in each pair of sentences which are spelled the same but pronounced differently.

1. I record the points for each team.  
I have a record of those points. (16)
2. She wanted to enter the beauty contest  
She didn't like the decision so she decided to contest it. (36)
3. She stepped on a sharp object and cut her foot.  
She did not object to the doctor's treatment of the cut. (59)
4. The archer aimed his bow carefully at the target.  
He will bow to the audience after he hits his target. (81)
5. An alternate is a substitute.  
They had to alternate days so they could use the gym. (99)
6. The cat was content after eating it's dinner.  
The content of the book was listed in the index. (119)
7. The soldier threatened to desert the army.  
The army marched across the hot desert. (135)
8. The wind blew down the trees during the storm.  
He had to wind the blue cord around the pole. (156)
9. They finally completed their school project.  
We need to project the picture on the screen over there. (175)
10. You find vegetables in the produce department.  
My vegetable plants did not produce much this year. (193)

## BIBLIOGRAPHY

Bates, S. and D.F. Bates. "and a child shall lead them:". Stephanies' Chart Story. TEACHING Exceptional Children, 1971, 3(3), 111-113.

Cohen, M.A. and G.L. Martin. Applying precision teaching to academic assessment. TEACHING Exceptional Children, 1971, 3(3), 147-150.

Haring, N. (director), L. Maddux, and D.A. Krug. Investigation of Systematic Instructional Procedures to Facilitate Academic Achievement in Mentally Retarded Disadvantaged Children. Final Report. Educational Resources Information Center, ERIC Document, ED 071 248, Sept., 1971.

Haring, N., and R.L. Schifelbusch. "Operant Methodology and Educational Technology in Special Education." Methods in Special Education. New York: McGraw-Hill Book Company, 1967.

Haughton, E. "Aims-Growing and Sharing." Paper presented at Let's Try Doing Something Else Kind of Thing, Educational Council for Exceptional Children, Arlington, Virginia, March 25-26, 1971. Educational Resources Information Center, ERIC Document ED 060 587.

\_\_\_\_\_, Great gains from small starts. TEACHING Exceptional Children, 1971, 3(3), 141-146.

Johnson, E.C. Precision teaching helps children learn. TEACHING Exceptional Children, 1971, 3(3), 106-110.

Kunzelmann, H.P., ed. Precision Teaching. Seattle: Special Child Publications, Inc., 1970.

\_\_\_\_\_, project manager. Progress Report II. Child Service Demonstration Programs in Seattle-Spokane-Tacoma for Precise Educational Remediation for Managers of Specific Learning Disabilities Programs. Olympia: Superintendent of Public Instruction, Division of Curriculum and Instruction, Special Services Section, July 1, 1972.

Lindsley, O.R. "From Skinner to Precision Teaching: The Child Knows Best!". Paper presented at Let's Try Doing Something Else Kind of Thing, Educational Council for Exceptional Children, Arlington Resources Information Center, ERIC ED 060 581.

Lovitt, T., H.P. Kunzelmann, P.A. Nolen, and W.J. Hutten. "The Dimensions of Classroom Data," Journal of Learning Disabilities, 1968, 1(12), 710-21.

Pennypacker, H.S., C.H. Koenig, and O.R. Lindsley. Handbook of the Standard Behavior Chart. Kansas City, Kansas: Precision Media, 1972.

Phillips, D. "We Have a Successful Tool Now-Let's Use It!" Paper presented at Let's Try Doing Something Else Kind of Thing, Educational Council for Exceptional Children, Arlington, Virginia, March 25-26, 1971. Educational Resources Information Center, ERIC Document ED 060 581.

Precision teaching in perspective: an interview with Ogden R. Lindsley. TEACHING Exceptional Children, 1971, 3(3), 114-119.

Starlin, A. "Sharing a Message about Curriculum with My Teacher Friends." Paper presented at Let's Try Doing Something Else Kind of Thing, Educational Council for Exceptional Children, Arlington, Virginia, March 25-26, 1971. Educational Resources Information Center, ERIC Document ED 060 587.

Starlin, C. Peers and Precision. TEACHING Exceptional Children, 1971, 3(3), 129-140.