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Manual for

REFER & LEARNING SCREENING

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1 What Is Screening?

INTRODUCTION

Each year one out of ten children entering public or private school will experience serious failure by the third grade. By their tenth year, three out of ten will be considered drop-outs. As teachers, we can identify dozens of valid reasons for failures and drop-outs. While it is always better to find the cause of the problem and change conditions, such is not always easy. While the educational system evolves towards solutions, we are suggesting a first step in getting the upper hand on the problem. The first step, in our opinion, is screening.

Every child is unique. Some will be verbal, cheery, and alert, while others will be silent and withdrawn. Some are excellent readers, while others find simple sentences a struggle. How can we identify these unique qualities and organize our instructional settings to improve and foster skill development? We believe that screening of all children is a first step.

Screening for vision, hearing, and health-related problems is standard practice in most schools. Screening for cognitive development rarely occurs, and when it does, the instruments available have not been tested for predictive power. Cognitive screening now enables us to know how to assess each child's skills and to improve and foster that uniqueness.

Purpose Of This Manual

Instructions in this manual are designed for classroom teachers, aides, and support personnel. As a result of these instructions, we expect that educational staff will understand what screening is, why screening is required, and how to make professional judgments about screening instruments. Two screening instruments are examined in this manual.

AN OVERVIEW OF SCREENING

What is screening? Basically, it is a simple process by which teachers can formally identify those children who will be needing special services. We have found that fewer than 10% of young children will need special services; however, those who will need services should receive them as early in their educational careers as possible. Many people, including teachers and parents, ask "Why sooner than later?"

The evidence for early intervention is quite strong, for at least three important reasons. First, early intervention increases the odds for instructional success. Second, early intervention prevents multiple failure, both academic and social. Third, and not least in today's tax-saving times, early intervention saves millions of educational dollars by dramatically reducing the number of "school failures."

Screening has other benefits as well. For example, it can tentatively identify those children (often called "gifted") who should be given accelerated programs. Screening can also sort children who show pending problems and potential opportunities

for excellence despite the fact that they are not clearly in immediate need of special services or accelerated programs.

Legal Requirements

In the past few years, screening has become required by law. At the federal level, Public Law 94-142, the Education for All Handicapped Children Act, spells out the screening requirement by calling for "implementation of a formal plan for identifying a disability as early as possible in a child's life" (Section 2, sub. A 13). In addition, most states have followed the federal example by enacting requirements to conduct annual comprehensive searches to identify young children who may need special services.

A Formal Plan

The screening process works because it is a formal plan to quantify annually the needs of children according to an objective standard. When combined with observations at home, at school, and in the community, this objective ranking through formal screening enables educators to find those children who will need help in the future. But remember that screening is not by itself sufficient. Screening alone can make mistakes, because a child had a bad day, because there were scoring errors or problems, or because a child has a unique medical or sensory problem. At the same time, casual observations may overlook children's special needs. Such observations, by themselves, can be in error because of teacher expectations, family history, or management problems. Consequently, both federal and state laws require a combination of screening and observation records. As a result, annual formal plans can effectively identify those children in need of special services.

SCREENING INSTRUMENTS

Preferably, any screening test should satisfy six criteria before it is selected for use. The test should be:

- (1) Valid
- (2) Reliable
- (3) Non-discriminatory
- (4) Developmental
- (5) Brief (quick to administer)
- (6) Able to provide educators with a decision point

Let us examine each of these criteria in more detail.

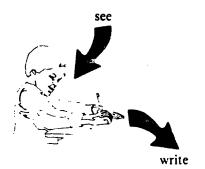
Validity

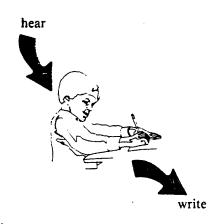
Screening measures should be valid. In simple terms, this means that a screening instrument should measure what it says it measures. Two common ways of judging validity are in terms of content validity and predictive validity.

Content Validity. In order to be valid, skill measures should be related to skills needed by the child for success in the school setting. Consider these three examples of how school work and screening content may be related. A valid screening instrument may ask a child (see Figure 1-1) to:

- (1) See a task and then perform the task (see-write), e.g., writing answers to math problems.
- (2) Listen to an instruction and then perform a writing task (hear-write), e.g., writing spelling words when dictated.
- (3) Say information upon presentation of a visual cue (see-say), e.g., reading.

These three tasks are directly related to school success because they involve skills the child must use daily. However, a valid screening measure should also be sensitive to





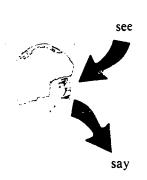


Figure 1-1 Screening tasks should be directly related to school work.

individual differences. It should provide information on how much the child completed and how well. It should measure both the accuracy of the child's responses and the speed or ease with which he performs the tasks. Both of these are critical to school success.

Predictive Validity. Because a screening instrument seeks to identify those children who will need special services, it should be able to accurately predict children's special needs. The technical term for this ability is predictive validity. Predictive validity is commonly determined by applying external criteria to the results of a measurement instrument. Results which have high predictive validity may then be used as criteria for in-depth assessment, special education placement, or retention. To measure this predictive validity, we can examine the results in terms of four conditions:

If screening stated that help was needed:

- (1) Yes, help was provided
- (2) No, help was not provided

If screening stated that help was not needed:

- (3) Yes, help was provided
- (4) No, help was not provided.

These conditions are illustrated in Figure 1-2.

		Services Later Provided?		
S		M 1/-	07- No	
C	Will	% Yes	% No	
R	Need Help			
E				
E				
N				
1	Will Not	% Yes	% No	
N	Need Help	*CRITICAL		
G				

Figure 1-2 Predictive validity criteria should be based on the percentage of children identified or missed by screening.

The predictive validity of a screening instrument is judged in terms of the third category, i.e., the number of children whom the screening instrument predicted would not need help but who eventually did need help. This category represents children who were missed. To evidence high predictive validity, this category should have a low to zero percentage of the children screened. Quite simply, a valid screening instrument should identify virtually all children who will need help.

Reliability

A screening instrument should not only be valid but reliable. To be reliable, the instrument should place or rank children in the same, or close to the same, position when the test is given repeatedly. Consider this example: Billy needs help most, John next, then Jane, Tim, and Sue. If the next set of results (if the instrument is given a second time) shows the same order of need, the screening may be considered reliable. However, if the next set of results shows Jane first, Tim second, then Billy, Sue, and John, the reliability of the test is questionable. This test-retest reliability, or stability, is one important requirement for a sound screening instrument.

Another important measure of reliability is the degree to which several raters or scorers agree on the value they give to the same response that they all see or hear. A reliable test is one on which scoring or rating stays the same when different individuals score or rate a response. This is sometimes called *inter-rater* or *inter-observer reliability*.

Non-Discriminatory Characteristics

As we have seen, a valid screening instrument should be related to skills needed by the child for success in school. On the other hand, a screening instrument should not discriminate against certain pupils on the basis of other, unrelated factors. That is, the screening scores should not cause one group of children to appear to be lower or slower than the other children.

This weakness is particularly critical if the group seems lower or slower than the majority because of ethnic or cultural differences. Besides the social injustice which such a weakness may cause, a discriminatory instrument also causes two serious educational problems.

First, a discriminatory instrument may result in some children receiving special treatment who do not need it. Second, children who do need special help may not receive it.

In designing non-discriminatory screening instruments, several mathematical checks must be included. First, the distributions of scores (in a relatively large population) should result in a bell-shaped curve, with most scores being clustered around the "average" (see Figure 1-3). Second, the percentage of children in any group should

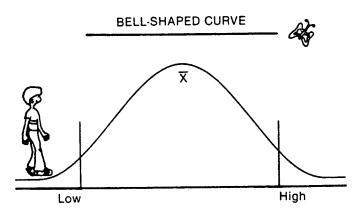


Figure 1-3 Distributions of screening scores should cluster around the "average," resulting in a bell-shaped curve when graphed.

BELL-SHAPED CURVE

— — Caucasian

— Minority

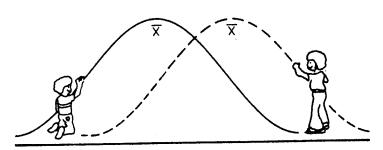


Figure 1-4 For screening to be nondiscriminatory, children in any minority group should have means or averages statistically similar to the larger group.

have means or averages which are not statistically different from the other children (see Figure 1-4). Finally, the mathematical check for non-discriminatory scores should enable cut-off scores for program eligibility to allow equal access to any group within the population of children screened (see Figure 1-5). When a screening instrument meets these checks, it can be given with the assurance that children will be identified on the basis of school-related factors rather than cultural, ethnic, or other factors which should be unrelated to school success.

PROGRAM ELIGIBILITY

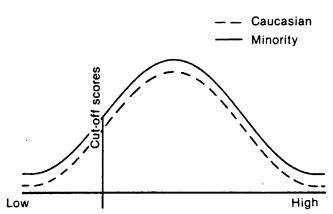


Figure 1-5 Screening cut-off scores for program eligibility should allow equal access to any minority group within the population screened.

Developmental Aspects

A screening test should also be developmental, in the sense that on the average a low score should equal a low (young) age and a high score should equal a high (older) age (see Figure 1-6). In other words, a developmental screening instrument should correlate with age. Developmental screening thus insures that an older child with a low score, or a younger child with a high score, may be readily sorted from the "average" children.

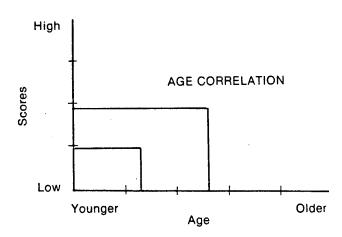


Figure 1-6 Developmental tests should result in lower scores with younger children and higher scores with older children.

Brief and Easy to Administer

Because screening should give school personnel an opportunity to examine every child for possible special needs, an efficient screening instrument sorts; it does not diagnose. Therefore, it should be quick to administer, easy to give, and should re-

quire no specialized equipment. Teachers, aides, and parent volunteers should be able to administer and reliably score the screening instrument. The more people who can reliably give and score the instrument, the less teacher and instructional time need be devoted to the process. To keep the screening as simple and inexpensive as possible, equipment needs should be minimal. Materials and tools common to all classrooms should be all that is necessary—items like pencils, a clock or watch, or a tape recorder. The value of identifying special needs children early cannot be underestimated, but the time and materials needed should not be so costly as to discourage screening.

Decision Point

Perhaps most important, screening should produce results which lead directly to a sound decision for every child screened. The decision may involve referral either for remedial actions (for those children scoring low) or for challenging materials (for those children who require no remedial help). Of course, most screening results emphasize the need to make rapid and logical referrals to special education for those children who need remedial help. But we also expect screening results to show where to begin with a child and how the child may be helped, whether or not the child is referred to special education. Finally, screening results should also identify children who need accelerated programs or similar challenges in their daily school life.

Summary

Let us review the criteria for a sound screening instrument:

- (1) Valid-it should measure what it says it will measure;
- (2) Reliable—it should measure the same way over and over again;
- (3) Non-discriminatory—the scores should not cause a group to be lower or slower;
- (4) Developmental—as a group, younger children should score lower and older children should score higher;
- (5) Brief—it should be quick and easy to administer without special equipment:
- (6) Decision Point—it should allow us to make an educational decision for every child.

Now, let's examine two instruments in terms of these six criteria.

REFER AND LEARNING SCREENING

REFER is an individually administered screening instrument for preschool and kindergarten children. It takes 5 to 8 minutes to administer to children between the ages of 3 and 6. REFER has been standardized on 20,000 young children, with 70% Caucasian and 30% minority. REFER identifies children based on those scoring below the 25th percentile on four out of four skills. The norms are for preschool 3- and 4-year-olds, kindergarten children 5 years old (during the Fall) and Spring kindergarten children 6 years old.

Learning Screening is a second screening instrument, designed for children between 6 and 12 years of age (grades 1 through 6). It is a combined group and individually administered instrument and has been used with 60,000 children across the country. Math, spelling, and reading are sampled for one minute each day on ten consecutive school days.

The math and spelling samples in *Learning Screening* are both performed in a group setting; the reading sample is performed on a one-to-one basis with each child. This screening takes 3 to 5 minutes of class time per day for the group samples, plus one minute for reading alone with each child (while the rest of the class continues in session).

Learning Screening results in two kinds of measures: a performance level and a learning index for each child. Performance indicates the child's fluency and correctness on a skill at the end of ten days, while the learning index indicates the change in the child's performance over the screening period. The instrument then uses these two measures to rank the children most in need by class, by school building by grade, and even by district or by state if administrators wish.

Now, let's examine *REFER* and *Learning Screening* in terms of the six criteria we have already identified as important in evaluating screening instruments.

Validity of REFER and L.S.

Content Validity. Both REFER and Learning Screening use frequency measures, i.e., counts of correct responses over time. This provides information on not only the accuracy of a child's responses but the fluency (or speed and ease) with which he performs the skill. Both of these qualities are important to success in school. Further, the skills which REFER and L.S. measure are relevant to school work. Outlined below are the skills sampled in each instrument and their relationships to school work.

REFER

- Write Loops—beginning penmanship skill, quickness.
- Touch Body Parts—listening skill, gross motor skill.
- Count from 1-10—thinking, expressive ability, beginning math skill.
- Touch Circles—eye-hand coordination, fine motor skill.

Learning Screening

- Math-write numbers, addition, subtraction, multiplication, and division.
- Spelling—write name, small and large words.
- Reading—say letters, sounds, words, and sentences.

Predictive Validity. In one study of REFER (see Figure 1-7), 22 children out of 694 (3%) needed referral for in-depth diagnosis. Of the 22 children, 79% were retained and 21% were not (false positives). The number of children missed, i.e., those not identified who later needed help (false negatives), equalled 5%. These results give evidence of the excellent predictive validity of REFER.

(n	= 6	94)	Services Late	er Provided?
R E F	S C R E	Will Need Help	% Yes—2.4%	% No-0.7%
E R	N I N G	Will Not Need Help	% Yes5%	% No—92%

Figure 1-7 REFER predictive validity.

Two predictive validity studies for Learning Screening have been conducted. Of 484 children in Great Falls, Montana, 7% were identified but did not eventually require special services, 9% were missed, and 84% were accurately identified (see Figure 1-8). In a second study in Baltimore, 98% of the children were accurately identified, only 1% were identified but did not later require special services, and only 1% were missed (see Figure 1-8). Both of these studies give evidence of the excellent predictive validity of Learning Screening.

(n	= 4	84)	Samilaaa I ot	er Provided?
			Services Late	er Frovidea:
L	S			a
E	C	Will	% Yes-11%	% No- 7%
Α	R	Need Help		
R	Ε	•		
N	E			
1	N			
N	ï	Will Not	% Yes— 9%	% No-73%
G	N			
U		Need Help		
	G			
(n	= 6	5)		
			Services Lat	er Provided?
L	S			
E	Č	Will	% Yes—23%	% No 1%
Ā	R	Need Help		
R	E	recu ricip		
N	E			
i	N		m N 10%	% No-75%
N	I	Will Not	% Yes— 1%	70 140 75 70
G	Ν	Need Help		
	C		 	

Figure 1-8 Learning Screening predictive validity.

Reliability of REFER and L.S.

Three studies have established *REFER* reliability. Screeners showed perfect agreement 83% of the time, and all three screeners' score tallies were within 2 (out of as many as 65) on all observations (see Figure 1-9). Verification of correcting and scoring *REFER* in the field showed a correlation of .88. These data indicate high interrater reliability for *REFER* (see Figure 1-10).

		Scre	eners		A	greement	
Skill	LA	JA	JE	Standard	100%	± 1	± 2
Write loops	31	30	30	30	2	1	0
Touch body parts	21	21	21	21	3	0	0
Count 1 to 10	65	65	65	65	3	0	0
Touch circles	30	32	32	32	2	0	1
					10	1	1
					83%	8%	8%

	Correlations*			
	LA	JA	JE	Standard
LA	1,00	+ .99	+ .99	+ .99
JA	+ .99	1.00	+ .99	+ .99
JE	+ .99	+ .99	1.00	+ .99
Standard	+ .99	+ .99	+ .99	1.00

^{*}Pearson product-moment correlation calculated on all 19 of the original screening items from which REFER was developed.

Figure 1.9 Inter-rater reliability of REFER screeners.

		Agreement			All K Students		
	100%	± 1	± 2	± More	r*	Mean	SD
Write loops Percentages	14 25%	20 36%	3 5%	18 33%	+ .88	46	30

n = 55. *Pearson Product-Moment correlation.

Figure 1-10 Inter-rater reliability of REFER "Write Loops" correction and scoring

The practice-test reliability of the four *REFER* skills was used to see if the measurements were stable from one time to the next. They were: all correlations were significant at the .01 level or greater (see Figure 1-11).

Skill	r*	Significance
1. Pictures	+.56	.001
2. Touch body parts	+ .70	.001
3. Count 1 to 10	+ .68	.001
4. Touch boxes**	+ .41	.01
w = 66		

^{*}Pearson product-moment correlation.
**Later changed to "touch circles."

Figure 1-11 REFER practice-test reliability.

Learning Screening shows results similar to REFER. Test-retest has been applied on the same learning measures. On two skills (math and spelling), correlations of .90 and .86 were found (both significant at the .001 level) (see Figure 1-12).

		Ski	li .	
		Subtraction facts $n = 54$		(3rd grade) 54
	Test	Retest	Test	Retest
\overline{X}	×1.22	×1.16	×1.14	×1.13
SD	.15	.12	.05	.05
r	.90	.90		
<i>p</i> ≤	.00:	1	.00	1

Figure 1-12 Learning Screening test-retest reliability (learning indexes).

Reliability of both *REFER* and *Learning Screening* has recently been improved by the use of cassette tapes which guide the screener by stating exact instructions for the pupils and by automatically timing each sample.

Non-discriminatory Characteristics of REFER and L.S.

REFER was carefully researched and constructed to provide school personnel with a non-discriminatory screening instrument for young children. Results have shown that REFER does not cause minority children to be selected in greater proportions than their percentage in the population screened. Generally, differences are slight and fall within the standard error of measurement range (see Figure 1-13). A second study shows that low students—those to be referred—and high students—those to be challenged—were not significantly different in minority populations than in the larger population. REFER thus insures all pupils an equal opportunity for special services.

		Prese Touch	chool			Kinder Touch	rgarten	
0	Write	•	Count		Write	•	Count	
Group	Loops	Parts	1 to 10	Circles	Loops	Parts	1 to 10	Circles
Total sample								
n	177	177	177	177	3017	3017	3017	3017
$\frac{n}{X}$	19.4	19.0	48.2	26.4	34.5	23.9	81.5	38.5
SE	1.3	.6	2.6	.9	.4	.6	.6	.7
Minorities								
n	36	36	36	36	892	892	892	892
\overline{X}	18.3	19.6	59.8	28.7	34.3	23.3	76.5	37.9
Was mean of minorities								
within SE?	Yes	Yes	Above	Above	Yes	Yes	Below	Yes

Figure 1-13 REFER standard error analysis: total sample vs. minorities.

Learning Screening has also been shown to be non-discriminatory. When 753 minority children were compared to 7,836 Caucasian children, Learning Screening proved to be an excellent means of insuring that minority children are neither overidentified nor underidentified. Using the L.S. learning score means that minority children are 12 times better off when assessed by L.S. than by typical standardized achievement tests (see Figure 1-14).

Measure	Nui	nber of Comparisons	% of Comparisons		
	Made	On which minorities were significantly* lower	Showing minorities significantly* lower		
Standardized	0	7	78%		
Achievement Tests	9	,	78%		
LS, learning index	18	1	6%		

 $p \le .05$

Figure 1-14 Percentage of time minorities scored significantly lower than Caucasians on standardized achievement tests and on *Learning Screening*.

Skill	r*
Write loops	+ .42
Touch body parts	+ .69
Count 1 to 10	+.63
Touch circles	+.56

n = 3139.

Figure 1-15 Relationship between REFER scores and age in months.

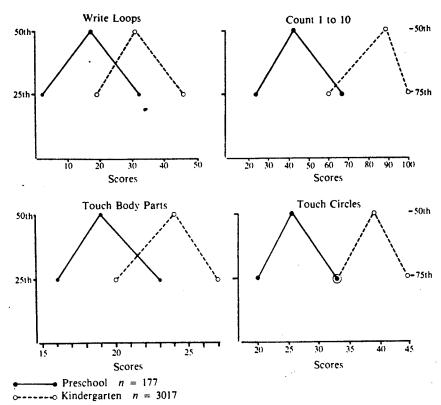


Figure 1-16 Preschool children score lower on REFER than kindergarten children at the same percentile rank.

^{*}Pearson product-moment correlation.

Developmental Aspects of REFER and L.S.

REFER results show that younger children score lower and older children score higher as groups. Correlations of age to scores were all positive, ranging from .42 to .69 (see Figure 1-15). Likewise, percentile scores indicate a developmental correlation between preschool and kindergarten groups (see Figure 1-16).

Learning Screening is also organized developmentally in each of the three skills, math, spelling, and reading. For each grade, furthermore, educators have the option of two levels, one for Fall (August through December) and one for Spring (January through June). Outlined below is the developmental progression of math skills showing their parallels to progression in a typical school curriculum.

Math Skill

1 Fall		Write numbers (with models)
1 Spring	(2 Fall)	Write add facts 0-5
2 Spring	(3 Fall)	Write add facts 0-9
3 Spring	(4 Fall)	Write subtract facts (top number 2-9)
4 Spring	(5 Fall)	Write 2 column addition
5 Spring	(6 Fall)	Write 2 column subtraction
6 Spring		Write multiplication facts to $\times 9$

In addition, the spelling and reading words increase in difficulty with each level. Although the change in words is the only change from level to level in these two skills, the data from almost 9,000 children show clearly the developmental progression of children's performance scores at various percentile ranks (see Figure 1-17).

	Grades									
Percentile Rank	1	2	3	4	5	6				
Spelling										
90%	28	52	73	92	107	113				
75%	24	44	63	79	93	101				
50%	19	31	51	60	76	80				
25%	12	21	38	47	58	65				
10%	9	14	29	34	44	49				
Reading										
90%	90	105	123	130	140	135				
75%	75	90	104	114	120	117				
50%	49	70	81	85	99	95				
25%	35	51	58	70	78	72				
10%	25	40	43	56	61	60				

Grade 1 n = 1606; grade 2 n = 1654; grade 3 n = 1523; grade 4 n = 1472; grade 5 n = 1445; grade 6 n = 1173.

Figure 1-17 Learning Screening performance scores indicate that Spelling and Reading skills screenings are developmental.

REFER and L.S. Are Brief and Easy

Both REFER and Learning Screening meet the important requirement of being quick and easy to give. REFER takes only 5 to 8 minutes per pupil, administered once. Learning Screening takes less than 5 minutes per child per day for ten days, or about 50 minutes total per child. Equally important, the classroom is interrupted for only about 5 minutes a day during the administration of the two group assessments (math and spelling). Neither REFER nor Learning Screening require any kind of sophisticated equipment. All that is needed is a pencil and scoring booklet for each child, one audiotape with administration instructions and timings, and a standard audio cassette player.

REFER and L.S. Lead Directly to Decisions

Both screening instruments lead directly to a decision for every child screened. In addition, remedial and challenging activities are available for teachers to use with every

child screened. These materials sample a wide range of skills at the preschool and kindergarten levels (for children screened with REFER) and at the primary grade levels (for children screened with L.S.). These materials are described in greater detail in a separate manual which accompanies them.

2 Administering and Scoring REFER

BOOKLET MANAGEMENT

Each child will need one *REFER* scoring booklet. Each screening booklet consists of four (4) pages. Page 1 is a cover page for detailed child identification, screening scores, and teacher opinions about pupils of concern. The cover page contains instructions for completing all information requested. Page 2 is for pupil use during practice (up to 30 seconds) and during the screening sample (60 seconds) of writing loops. Page 3 is for your use only. Two skills are presented to each child from page 3, and space is provided for you to record tallies of the child's performances. The two skills are Touch Body Parts and Count 1-10. Page 4 is for the pupil to use in Touching Circles. Instructions are printed at the top of each skill section for all four skills.

INSTRUCTIONS TO THE PUPIL

Pupils should be told they are going to play some games with you. The atmosphere should be one of fun. If you are relaxed, the pupil will model you (hopefully). To make administration easier and more fully standardized, REFER uses an audio tape to present the instructions to each child. All you need do is start the tape when the child is settled and ready, and then demonstrate what the tape says. The tape contains all the necessary instructions and timings for both practice and screening of all four skills. Of course, you should listen to the tape several times before using it with the child, just to make certain you know what you must do while it is playing. For your convenience, a copy of the tape script appears in part 5 of this manual.

If you do not have a tape for some reason, it is quite easy to administer *REFER* by giving the child the same instructions that the tape would. However, whether you use the tape or not, the critical issue in giving instructions to young children is *how they understand what they are told to do*. We will emphasize this point often. There is a practice session of up to 30 seconds for telling, showing, and helping the child to understand what you want performed. Again, though, make sure you get the point across in as relaxed and fun an atmosphere as possible.

TIMING EACH SKILL

The REFER audiotape contains all the timings necessary for both practice and screening samples. If a tape is unavailable for some reason, a wall clock or watch with a second hand works well.

SCORING RULES—GENERAL CONSIDERATIONS

To insure that scoring (and deciding what performances are right or wrong) is comparable for all pupils, examiners must follow fixed criteria for right (correct) responses and wrong (incorrect) responses. The examiner must then count only the correct responses and record each score accurately.

It is very important when screening skills of young children to check how they hear and interpret instructions. We have found that asking the young child (3 to 6 years old) to count as fast as he/she can may be heard as loud as he/she can. We have found that when given a model, like LLL, many young children make 777. If the child does not know what we want him to perform, he cannot show us his skills.

We must be sure we have communicated what the pupil is to do. To test the instructions with each child, we always give a practice session. All four practice sessions last up to 30 seconds. First, the tape tells the pupil what we want him/her to do and then we show what we want. We try a practice. If the child fails to follow our verbal instructions and demonstration, we help the child physically during the practice. If the child cannot perform with telling, showing, and helping during practice, then we record zero in a relaxed and carefree mood and go on to the next skill.

Let's review the process of giving instructions on REFER:

- (1) The tape tells (or you tell) the pupil what you want performed.
- (2) Show the pupil what you want him/her to do or say.
- (3) Use up to a 30-second practice session—if the pupil performs proceed with the timed screening. If the pupil cannot perform after telling and showing then practice with help (physical guidance). If no correct sequence is given by the pupil, record zero and go to the next skill.

Scoring Write Loops

The corrections for write LLLQ state: "count correct when looped up and crossed." This means any of these are correct: 9 . If you find LLLQ or these are not correct. If, during the practice session, you have guided the pupil's hand and he/she still doesn't respond correctly, go to the next skill.

Scoring Touch Body Parts

You are allowed to tell, show, and help the pupil during the practice session if it is necessary. The tape gives the sequence of head, ear, nose, chin, neck, shoulder, hand, stomach, knee, etc. This allows you to devote your full attention to counting whether or not the pupil touched the body part last named. (Note: The tape is enormously valuable in giving this item. If you do not have a tape, you will need to memorize the sequence on the scoring form so that you can devote your full attention to counting body parts touched.)

The tape instructs the child not to worry about skipping body parts if he/she cannot keep up with the pace (one per second). Rather, the child should simply touch the last part he/she heard named. This means that you must pay careful attention to make sure the child touches the body part named on tape immediately after the child's last "touching body part" movement. Keep track of the correct body parts touched, using the tally box provided on the form.

Scoring Counting 1-10

The most common problem a pupil has in counting from one to ten over and over is the "over and over" part. Generally, you can correct this problem of counting one to ten and then stopping when you observe the child during the practice session.

If the pupil has the sequence correct, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10—1, 2, 3, etc., then you can simplify recording by simply tallying each 1-10 sequence and multiplying by ten. Then add the numbers from the last unfinished sequence to get the correct count of numbers said in the 30-second screening.

If the pupil completes the 1-10 sequence in the practice but then during the screening session misses one or more numbers, count the misses. Record the total correct count by subtracting the numbers missed from the total numbers in the sequences attempted by the pupil.

If during the 30-second practice session the pupil cannot count to ten even with your verbal help, record zero and then go to the next skill.

Scoring Touch Circles

This skill is screened last because it generally allows most pupils some success—we should give pupils a good feeling about screening in their early years. Again, the tape gives instructions and you should show the child what to do. If during practice you have to help the pupil, do so. If (when the tape tells the pupil to "please start" the screening session) no response or only incorrect responses occur, thank the pupil for playing the games and record zero.

To count a response as correct, the pupil's finger must be lifted and touch at least part of the circle as it comes down to meet the paper. Encourage the pupil to move across the page from left to right, but count all correct responses. At the end of a line, point to the next line down if needed. At the end of the 30-second timing, make a slash at the last circle touched correctly. If the pupil does more than 42 (i.e., gets all the way through the page) in 30 seconds, have him/her "start over".

Before You Begin Screening...

The scoring rules and examples given here are intended to help all examiners instruct, score, and record in the same way. Practice makes perfect, and we strongly recommend that you practice counting and scoring with a peer. Ask another teacher or aide to score with you. Compare your scoring and confirm to yourself that you are following all of of the scoring rules. The results of your screening will be more reliable and more useful.

3 Administering and Scoring Learning Screening

BOOKLET MANAGEMENT

Each student will need one L.S. scoring booklet. There are a few rules we will all have to follow. First, the scoring booklet *must not* be used or studied by the children except for one minute of screening per specific skill each day. Each booklet should be taken from the pupil before the one-to-one reading practice begins.

INSTRUCTIONS TO PUPILS

When passing out the booklets the first day, ask the pupils to put their Name, School, and District or Parish on the front cover. While holding the booklet in front of the class, show the class how to open and fold pages under until they are at the starting page for the day for the skill. Be sure to follow the same sequence each day: math, spelling, and then reading.

To make administration easier and more fully standardized, Learning Screening uses an audio tape to present the instructions to the children. All you need to do is start the tape when the children have their booklets and are settled. The tape contains all the necessary instructions and timings for screening all three skills. Of course, you should listen to the tape several times before using it, just to make sure you know its contents. For your convenience, a copy of the tape script appears in part 5 of this manual.

If you do not have a tape for some reason, it is quite easy to administer L.S. by giving the pupils the same instructions that the tape would.

The tape will tell the pupils to open their booklets, put them in their writing positions, and aim their pencils at the first box or problems or line. Check where they will write next. When the procedure is clear to all, restart the tape.

When the tape says "Please Stop" and quickly adds "Pencils Up," check that all have stopped. The tape will then ask the students to each circle the last answer, letter, or number they made. When the spelling timing is over, make sure all the pupils have closed their booklets. You can then pick them up one by one as you take the individual reading timings for each pupil.

TIMING EACH SKILL

The audio tape is all you need to conduct the timings for each skill. If the tape is not available, use a clock or watch with a second hand. Please do not interrupt the sequence of days.

SCORING RULES

Scoring the Math Skill

The scoring of Math is easy for the early elementary levels. Each sheet which requires calculations has a correction page, which is included in this manual, part 6. In the upper-left corner of each booklet page, the top line of instructions tells you the skill the student is to perform and the manner in which you count correct responses. As you correct each page of answers given by your pupils, you will be counting only digits correctly written in place. If a child skips a problem, writes the wrong answer, or transposes the digits, the wrong digits are not counted as correct. You want the count of correct digits written in place produced by each pupil in one minute of time. The incorrect responses will give you clues for remediation later, but for scoring we are interested only in correct digits. The top line of performance boxes on the Tabulation Sheet (at the front of the child's scoring booklet) is where you place the number of correct digits the pupil writes each day for the Math Skill.

We have said that when counting correct responses you are counting digits correct, not problems correct. Confused? We want your pupils to be given credit for each part of the answer. Some problems require one-digit answers while others require two-digit answers. For example, $9 \times 1 = 9$ has a one-digit answer, while 6 + 7 = 13 has two digits in the answer. If you were to count problems correct, we would not be giving the pupil total credit for his/her effort.

Another example is the case of a pupil who writes one correct digit and one incorrect digit in a two-digit answer. If we counted problems, the pupil would not receive credit for the one correct digit. In *Learning Screening*, we give pupils as much credit as possible.

Scoring the Spelling Skill

Scoring spelling is going to take more concentration for you, because it is different in approach from your usual activities. The scoring system for spelling is to count the correct *letters* in place. The pupil may either write down the columns on the screening sheet or across the page from left to right. For ease of correction, encourage the class to write down the columns.

Except for the Spelling Skill for 1st grade Fall, the Spelling Skill at all grade levels is the same: to write words when they are dictated on tape. (The 1st grade Fall spelling requires the pupil to write his/her own first name as many times as possible in one minute.) Correcting the spelling responses is accomplished by counting how many letters correct in place your pupils wrote. For levels 1st grade Spring through 6th grade Spring, the words are said to them at a rate of 30 per minute. Note that your pupils are to write once any word they hear. Many of the words will be ignored by the pupils. That is the point of this type of screening. Pupils should write only the words they hear. Not all pupils will be ready for the next word because they are still writing the last word they heard. They may hear the next word, remember it, write it, and miss two or more words before they hear another word. That is fine. This allows all of your students the freedom of writing the words they heard without locking their performance into an "average" pace. This technique gives your pupils the opportunity to improve each day.

You count the letters correct in place and record only the correct count on the appropriate row of the Screening Tabulation Sheet. You or your assistants will know how to spell the words, so correction will not be difficult. However, correction pages for all spelling words are included in part 6 of this manual. While they may not be needed for your correction and scoring, they are available for those who wish to refer to them. Remember to count letters correctly written in place, from the left to right. For the word CAT, an answer of CTA earns one correct response; an answer of CET earns two correct responses; an

answer of TAC earns one correct response. Again, remember to count from left to right, considering position. Omissions such as AT (omitting the C) usually waste all the responses to the right of the omitted letter (in this case no letters are correctly in place).

The Spelling scoring will let you know more about your pupils than just the score. For example, where children hear different initial, medial, or ending sounds and consistently write what they hear, you will be able to detect such problems.

Scoring the Reading Skill

The Reading Skill sheets at the back of the pupil's booklet are your correction pages, to be scored as you follow along with the student's reading. As the pupil says words, you may mark the corrects, errors, or skips, to show the number of words said correctly at the end of one minute. The words marked *error* may be noted for future use in remediation.

The number of words said correctly is then recorded on the Tabulation Sheet. How you innovate to record, analyze, and use the information you obtain from the one minute of saying words is up to you. You will become familiar with many academic and social problems and learning opportunities for your pupils after one minute a day for ten days. The Reading sheets used in this screening package have been used many times. The words are close to or the same as those words which you will be teaching or have taught in the past. But you will find that the scoring of say words can make a critical difference. If you have never systematically spent one minute a day for ten days alone with a pupil, you are going to have a memorable experience. You will learn a lot about the way each child attacks learning problems. The scores will tell you a lot in the final analysis of your Learning Screening project. Plan on a meaningful educational experience as you correct and score your pupil's reading performances every day. You may even find that one minute a day with each child is a good idea, forever!

Corrective Feedback

At the end of each timing in reading, math, or spelling, the child should be told how to say or write any word or problem on which he or she has performed incorrectly.

4 Screening Results

USING REFER SCORES

REFER is designed to provide information on those pupils in need of immediate referral, those who would benefit from accelerated programs, and those who can benefit from intermediate action goals in regular class settings. These analyses of results may be performed by computer or by hand. For those schools using the computerized analysis, all the examiner need do is follow the instructions labelled "INSTRUCTIONS FOR RETURNING SCREENING FORMS" on the right-hand side of the front page of the REFER form. The advantage of the computerized analysis lies not simply in the speed and ease of the analysis, however; perhaps more important is that the computerized analysis provides local norms, i.e., norms based on the children in the school, district, or state where the screening takes place. For those who wish to analyze REFER scores without the aid of a computer, the booklet titled REFER Class Ranking Form contains all the necessary information and forms for analyzing REFER results from a class-size group of pupils.

USING LEARNING SCREENING SCORES

Learning Screening is designed to provide school personnel with rankings of pupils in terms of most in need to least in need. These rankings may be calculated either by computer or by hand. For those schools using the computerized ranking, all the examiner need do is follow the instructions labelled "INSTRUCTIONS FOR RETURNING SCREENING FORMS" on the right-hand side of the Tabulation Sheet in the student's scoring booklet. Computer-analyzed rankings may be provided for each classroom, each district or parish, and even for each state, depending upon the information needed.

The hand rankings are relatively easy to perform for a class-size group. Those who wish to rank a class of students by hand should use the booklet titled *Learning Screening Class Ranking Form*, which contains all the necessary procedures and forms for class ranking.

5 REFER and L.S. Tapes

Audio Tape Script—REFER

This tape contains instructions for administering *REFER*. You should have the pupil sitting across from you. The screening booklet should be opened to the *Write Loops* page. Make sure the page is upright to the child, and have an eraserless pencil in your hand. Stop the tape until you are ready.

Hi! We are going to play some games. First, we are going to make loops. We make loops like this. You may try. We want you to start here on the first line in the practice box. We'll help you.

[up to 30 seconds]

That's enough practice. Now let's play the game for real. You will start here on the first line in the box. Keep making loops until we tell you to stop. Go as fast as you can. Are you ready? Please start.

[60 seconds]

Please stop. We'll take the pencil now. Please stand up for the next game. We'll adjust your paper and write down some of the things you do. We'll stop the tape until you're ready.

This time we want you to touch each part of your body when you hear a part of your body named. Like this. Head, ear, nose, chin. You try it. Slowly touch your head. Touch your ear. Touch your nose. Now let's go a little faster. Touch your chin... your neck... your shoulder... hand... stomach... knee... foot... head.

[30 seconds]

That's enough practice. Now we are going to play the game for real. Touch the body part you hear, quickly and correctly. But don't worry about skipskipping some. Are you ready?

head ear nose chin neck shoulder hand stomach knee foot chin ear head neck nose stomach hand shoulder knee foot nose knee foot chin hand shoulder neck stomach ear head

Wasn't that fun? Please sit down. We'll write down how many you did and get ready for the next game. We'll stop the tape until you are ready.

This game is fun too! You are going to count from one to ten over and over like this: 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10. Okay? Now you try it. We'll help you.

[30 seconds]

That's enough practice. Now we're going to try counting for real. When I tell you to start, count from one to ten over and over. Go as fast as you can. Are you ready? Please start.

[30 seconds]

Please stop.

The next game is lots of fun, too. We're going to put this sheet in front of you so that you can touch these circles. We'll stop the tape until you are ready.

Please touch the circles one at a time, from left to right, like this. Now you try it. At the end of the line, we go back and down one line, right here.

[30 seconds]

That's enough practice. Now let's do it for real. Go as fast as you can. Are you ready? Please start.

[30 seconds]

Please stop. Thank you very much! Wasn't that fun?

Audio Tape Script—Learning Screening, Grade 1 Fall

SIDE A

Please open your booklets to today's math page and fold all the other pages under the math page. Let's all put our booklets in our writing position and aim our pencil where we will write our first number. Everyone should be set to write the number you see. Write it in the same box, just under the number you see. Go as fast as you can. Are you ready? Please start.

[60 seconds]

Please stop. Pencils up! Please circle the last number you wrote.

Now let's find today's blank spelling page and fold all the other pages under it. Put your booklet in your writing position and aim your pencil at the first box, and get ready to write the first letter of your name. Don't write your last name, just your first. And remember, if your name is long, you can keep writing all the way across the page. Go as fast as you can. Are you ready? Please start.

[60 seconds]

Please stop. Pencils up! Please circle the last letter you wrote.

Let's put our pencils down and close our booklets. Class will now continue and each of you will get a chance to read, one at a time.

SIDE B

Are you ready? Please start.

[60 seconds]

Please stop.

Audio Tape Script—Learning Screening Grade 1 Spring through Grade 6 Spring

SIDE A

Please open your booklets to today's math page and fold all of the other pages under the math page. Let's all put our booklets in our writing position and aim our pencil where we will write our first answer. Everyone should be set to write the answer to the first math problem. Go as fast as you can. Are you ready? Please start.

[60 seconds]

Please stop. Pencils up! Please circle the last answer you wrote.

Next we will find today's blank spelling page and fold all the extra pages under it. Put your booklet in your writing position and aim your pencil at the first line, where you will write the first word you hear.

Write the words you hear quickly and correctly. Don't worry about skipping words. When you finish writing a word, just write the next one you hear. Are you ready?

[Each level tape dictates the spelling words for that level at a rate of one word every two seconds (30 per minute). See part 6 of this manual for the words for each level.]

Please stop. Pencils up! Please circle the last word you wrote.

Let's put our pencils down and close our booklets. Class will now continue and each of you will get a chance to read, one at a time.

SIDE B

Are you ready? Please start.

[60 seconds]

Please stop.

6

L.S. Answer Keys

Math and Spelling

Math Skill— 1st Grade Fall [No correction master is needed; student copies model provided on screening sheet.]

Math Skill— 1st Grade Spring (2nd Grade Fall)

Instructions: Write add facts (sums 0-5) for one minute.

Correction: Count correct digits.

3 +0 3	1 + <u>2</u> 3	0 + <u>1</u> 1	3 +2 5	0 + <u>4</u> 4	1 +1 2	5 +0 5	2 + <u>1</u> 3	0 +2 2	2 +2 4	(10)
4 +0 4	+3 - 4	0 +5 5	4 + <u>1</u> 5	+ <u>0</u>	2 +3 5	0 +3 3	1 +4 5	2 +0 2	3 + <u>1</u> 4	(20)
0 + <u>0</u> <u>0</u>	1 +2 3	0 + <u>4</u> 4			3 +0 3	0 +2 2	3 +2 5	2 + <u>1</u> 3	0 + 1 1	(30)
2 + 2 4	1 +4 5		0 + 0 0	4 + 0 4	1 +3 4	1 + <u>0</u> 1	2 +3 5	3 +1 4	2 + 0 2	(40)
4 + 1 5 1 + 1 2	0 +3 3 5 +0 5	3 +2 5 2 +1 3	5 +0 5 0 +2 2	1 + 4 5 2 + 2 4	1 +1 2 3 +0 3	2 + 2/4 1 + 2/3	0 +5 5 0 +1 1	2 +3 5 3 +2 5	0 + 1 1 0 + 4 4	(50)

Math Skill— 2nd Grade Spring (3rd Grade Fall)

Instructions: Write add facts (sums 0-9) for one minute.

Correction: Count correct digits.

1 + <u>2</u> 3	2 + <u>5</u> 7	0 + 1 1	6 + <u>2</u> 8	5 +4 9	3 + <u>3</u> 6	1· + <u>7</u> 8	5 + <u>0</u> 5	2 + <u>2</u> 4	1 + <u>5</u>	(10)
7	3	0	3	8	2	4	0	2	1	(20)
+0	+ <u>1</u>	+ <u>9</u>	+ <u>5</u>	+ <u>0</u>	+ <u>1</u>	+ <u>2</u>	+ <u>6</u>	+3	+4	
7	4	9	8	8	3	6	6	5	5	
5	0	1	9	2	1	3	4	1	2	(30)
+ <u>2</u>	+ <u>3</u>	+ <u>8</u>	+ <u>0</u>	+ <u>6</u>	+1	+ <u>4</u>	+0	+3	+ <u>7</u>	
7	3	9	9	8	2	7	4	4	9	
6	4	0	4	8	5	1	7	3	0	(40)
+1	+ <u>5</u>	+ <u>7</u>	+ 4	+ 1	+3	+ <u>6</u>	+ <u>2</u>	+0	+0	
7	9	7	8	9	8	7	9	3	0	
5	4	0	3	3	7	6	4	2	6	(50)
+1	+ <u>3</u>	+ <u>8</u>	+ <u>6</u>	+ <u>2</u>	+ <u>1</u>	+ <u>0</u>	+1	+4	+3	
6	7	· 8	9	5	8	6	5	6	9	
6	4	0	4	8	1	3	4	1	2	(60)
+ 1	+ <u>5</u>	+ <u>7</u>	+4	+ <u>1</u>	+ <u>1</u>	+4	+0	+3	+ <u>7</u>	
7	9	7	8	9	2	7	4	4	9	

Math Skill— 3rd Grade Spring (4th Grade Fall)

Instructions: Write subtract facts (top number 2-9) for one minute. Correction: Count correct digits. 5 -5 5 -1 4 7 -3 4 6 2 -1 9 -0 -9 -8 1 -0 6 (10)8 -6 2 -0 8 -0 7 -3 (20) 7 -2 5 5 -2 3 8 -2 6 (30)8 -3 5 -<u>1</u> 8 -<u>0</u> -3 0 (40)8 -8 0 9 -3 6 6 9 (50)8 -2 6 5 -0 5 6 -3 3 7 -5 2 8 <u>-6</u> -<u>1</u> (60)

Mat	h Skill	
4th	Grade	Spring
(5th	Grade	Fall)

Instructions: Correction:		o-column ac orrect digits		regrouping,	for one min	ute.		
16 +24 40	23 +59 82	69 + <u>27</u> 96	38 + <u>36</u> 74	+ <u>72</u> 91	35 +26 61	27 + <u>29</u> 56	17 +54 71	(16)
49	36	28	45	16	54	75	18	(32)
+ 49	+ <u>55</u>	+ <u>15</u>	+ 25	+ <u>46</u>	+26	+ <u>18</u>	+ <u>13</u>	
98	9 1	43	70	62	80	93	31	
38	17	43	67	59	55	48	39	(48)
+ 47	+ <u>38</u>	+38	+ <u>13</u>	+ <u>33</u>	+ <u>19</u>	+ 38	+ <u>26</u>	
85	55	81	80	92	74	86	65	
76	44	22	14	37	18	23	66	(64)
+ <u>17</u>	+ <u>18</u>	+ <u>49</u>	+69	+ <u>17</u>	+ <u>22</u>	+ <u>57</u>	+ <u>27</u>	
93	62	71	83	54	40	80	93	
33	18	26	21	47	49	29	14	(80)
+ <u>39</u>	+ 74	+29	+ <u>59</u>	+ <u>46</u>	+ <u>25</u>	+ <u>34</u>	+ <u>46</u>	
72	9 2	55	80	93	74	63	60	
52	29	17	34	16	65	58	59	(96)
+ <u>28</u>	+ <u>68</u>	+ <u>15</u>	+ <u>47</u>	+38	+ <u>17</u>	+39	+ <u>11</u>	
80	9 7	32	81	54	82	97	70	

Math Skill— 5th Grade Spring (6th Grade Fall)

Instructions: Correction:	Write ty Count c	Write two-column subtraction, with regrouping, for one minute. Count correct digits.												
81 - <u>42</u> 39	47 - 28 19	90 - <u>49</u> 41	81 - <u>55</u> 26	- 49 19	73 - <u>47</u> 26	92 - <u>33</u> 59	50 - <u>26</u> 24	(16)						
65	91	80	66	91	57	70	93	(32)						
- <u>29</u>	- <u>63</u>	- <u>35</u>	- <u>38</u>	- <u>17</u>	- <u>39</u>	- <u>52</u>	- <u>74</u>							
36	28	45	28	74	18	18	19							
71	82	51	43	64	80 v	32	75	(48)						
- <u>18</u>	- <u>17</u>	- <u>34</u>	- <u>16</u>	- <u>15</u>	- 28	- <u>19</u>	- <u>37</u>							
53	65	17	27	49	52	13	38							
76	93	54	32	51	94	72	40	(64)						
- <u>49</u>	- <u>25</u>	- <u>16</u>	- <u>18</u>	- <u>19</u>	- <u>57</u>	- <u>46</u>	- <u>14</u>							
27	68	38	14	32	37	26	26							
53 - <u>28</u> 25	45 - <u>26</u> 19	34 - <u>19</u> 15	92 - <u>35</u> 57	- <u>68</u> 17	62 - <u>24</u> 38	43 - <u>19</u> 24	74 - <u>28</u> 46	(80)						
86	71	40	67	70	56	88	65	(96)						
- <u>47</u>	- <u>56</u>	- <u>23</u>	- <u>38</u>	- <u>57</u>	- <u>19</u>	- <u>49</u>	- <u>28</u>							
39	15	17	29	13	37	39	37							

Math Skill— 6th Grade Spring

nstructions: Correction:	Write Cour	e multiplic nt correct	cation fac	cts throug	gh ×9 for	one min	ute.			
9 × 1 9	6 x 7 42	1 x <u>0</u> 0	3 x 9 27	4 x 2 8	3 x <u>3</u> 9	7 x <u>8</u> 56	9 x 5 45	9 x <u>4</u> 36	6 x 6 36	(16)
3 x <u>6</u> 18	6 x <u>5</u> 30	2 x <u>2</u> 4	3 x 8 24	5 x 7 35	x <u>1</u> 1	x 0 0	6 x <u>4</u> 24	0 x <u>3</u> 0	8 x 9 72	(32)
4 x <u>9</u> 36	2 x <u>1</u> 2	8 x 2 16	0 x <u>8</u> 0	7 x <u>6</u> 42	4 x <u>4</u> 16	6 x <u>0</u> 0	8 x <u>3</u> 24	7 x 7 49	1 x <u>5</u> 5	(48)
4 x 0 0	3 x 5 15	7 x <u>1</u> 7	2 x <u>6</u> 12	x 4/4	3 x <u>2</u> 6	4 x <u>3</u> 12	3 x 9 27	0 x 7 0	4 x 8 32	(63)
7 x <u>2</u> 14	5 x <u>8</u> 40	9 x <u>7</u> 63	7 x <u>3</u> 21	7 x 4 28	2 x 5 10	x 1/6	5 x <u>0</u> 0	8 x 6 48	9 x 9 81	(81)
2 × 0 0	8 x 8 64	0 x 9 0	5 x 5 25	9 x 2 18	8 x <u>1</u> 8	5 x 4 20	8 7 x 7 56	9 x 6 54	x 3 3	(97)

Spelling Skill— 1st Grade Fall

[No correction master is needed; student writes own name.]

Spelling Skill— 1st Grade Spring (2nd Grade Fall)

[All word	s contain 2 l	etters: nur	mbers in pare	entheses s	show running totals.]
an	(2)	my	(22)	up	(42)
go	(4)	if	(24)	he	(44)
it	(6)	am	(26)	in	(46)
us	(8)	me	(28)	me	(48)
as	(10)	is	(30)	an	(50)
of	(12)	on	(32)	of	(52)
in	(14)	we	(34)	us	(54)
at	(16)	at	(36)	my	(56)
he	(18)	go	(38)	if	(58)
un ,	(20)	it	(40)	am	(60)

Spelling Skill— 2nd Grade Spring (3rd Grade Fall)

[All word	s contain 3 l	etters; nur	nbers in pare	entheses :	show running totals.	
put	(3)	bed	(33)	out	(63)	
dog	(6)	him	(36)	sit	(66)	
fun	(9)	day	(39)	not	(69)	
now	(12)	the	(42)	yes	(72)	
get	(15)	but	(45)	car	(75)	
has	(18)	was	(48)	let	(78)	
boy	(21)	cut	(51)	cat	(81)	
her	(24)	and	(54)	saw	(84)	
pig	(27)	she	(57)	did	(87)	
can	(30)	run	(60)	may	(90)	

Spelling Skill— 3rd Grade Spring (4th Grade Fall)

[Numbers in brackets show number of letters in word to immediate right; numbers in parentheses show running total.]

[5]	going	(5)	[5]	about	(53)	[4]	play	(95)
[4j	look	(9)	[4]	down	(57)	[4]	fish	(99)
[4]	jump	(13)	[4]	with	(61)	[6]	please	(105)
[6]	little	(19)	[5]	today	(66)	[5]	sleep	(110)
[4]	tree	(23)	[4]	love	(70)	[4]	room	(114)
[5]	after	(28)	[4]	ball	(74)	[5]	first	(119)
[4]	give	(32)	[4]	from	(78)	[4]	come	(123)
[5]	horse	(37)	[4]	nice	(82)	[4]	back	(127)
[6]	mother	(43)	[4]	boat	(86)	[4]	much	(131)
[5]	think	(48)	[5]	store	(91)	[4]	milk	(135)

Spelling Skill— 4th Grade Spring (5th Grade Fall)

[Numbers in brackets show number of letters in word to immediate right; numbers in parentheses show running total.]

[5]	horse	(5)	[6]	around	(63)	[7]	teacher	(117)
[5]	small	(10)	[5]	table	(68)	[5]	class	(122)
[4]	into	(14)	[5]	never	(73)	[5]	again	(127)
[6]	window	(20)	[4]	farm	(77)	[4]	duck	(131)
[7]	running	(27)	[4]	land .	(81)	[4]	coat	(135)
[7]	because	(34)	[6]	summer	(87)	[6]	dinner	(141)
[4]	jump	(38)	[6]	pencil	(93)	[5]	chair	(146)
[6]	friend .	(44)	[5]	money	(98)	[4]	city	(150)
[8]	children	(52)	[7]	outside	(105)	[9]	beautiful	(159)
[5]	until	(57)	[5]	catch	(110)	[4]	arow	(163)

Spelling Skill— 5th Grade Spring (6th Grade Fall)

[Numbers in brackets show number of letters in word to immediate right; numbers in parentheses show running totals.]

[6] almost	(6)	[7] animals	(78)	[7] quickly	(141)
[7] picture	(13)	[5] thick	(83)	[4] joke	(145)
[7] blanket	(20)	[6] cannot	(89)	[5] heart	(150)
[7] kitchen	(27)	[4] roof	(93)	[5] visit	(155)
[9] factories	(36)	[7] bicycle	(100)	[6] branch	(161)
[6] myself	(42)	[8] elephant	(108)	[5] usual	(166)
[7] peanuts	(49)	[7] largest	(115)	[5] music	(171)
[7] country	(56)	[6] finger	(121)	[4] cool	(175)
[8] airplane	(64)	[6] should	(127)	[6] family	(181)
[7] careful	(71)	[7] calling	(134)	[4] true	(185)

Spelling Skill— 6th Grade Spring

[Numbers in brackets show number of letters in word to immediate right: numbers in parentheses show running total.]

[6]	broken	(6)	[6]	oldest	(72)	[5]	maybe	(140)
[5]	voice	(11)	[9].	geography	(81)	[5]	shirt	(145)
[9]	president	(20)	[6]	middle	(87)	[6]	larger	(151)
[8]	umbrella	(28)	[8]	question	(95)	[8]	upstairs	(159)
[8]	hospital	(36)	[5]	hotel	(100)	[6]	forget	(165)
[4]	less	(40)	[9]	chocolate	(109)	[7]	special	(172)
[7]	believe	(47)	[5]	nurse	(114)	[6]	nearly	(178)
[5]	spoke	(52)	[7]	nothing	(121)	[6]	giving	(184)
[8]	discover	(60)	[8]	neighbor	(129)	[8]	possible	(192)
[6]	movies	(66)	[6]	change	(135)	[8]	potatoes	(200)