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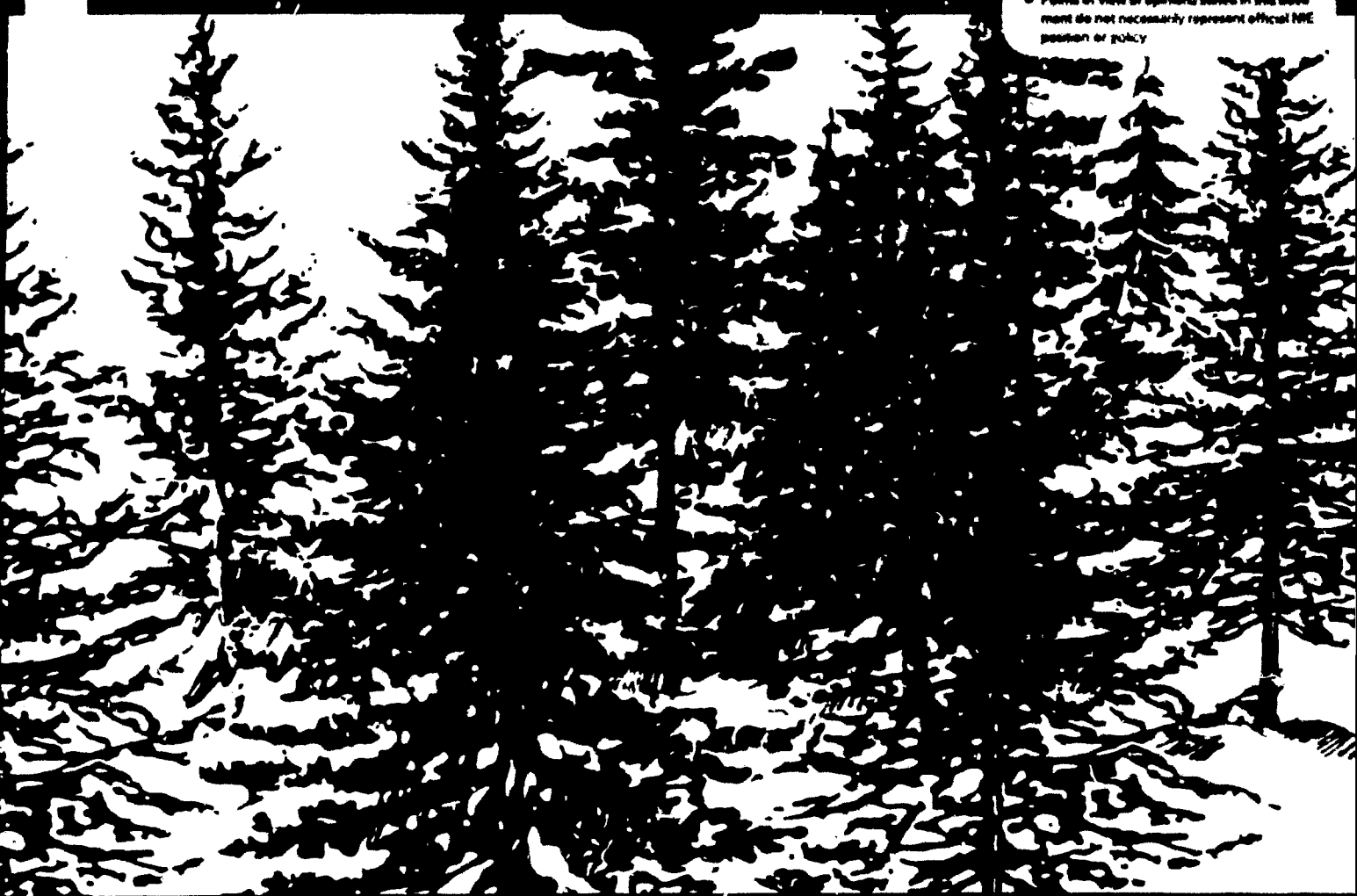
ABSTRACT

The Oregon State Board of Education initiated the Oregon Statewide Assessment Program in 1973 as a means for gathering data on student performance in the basic skills areas. Tests were administered to 27,086 fourth, seventh and eleventh grade students in 405 schools selected at random in March of 1982. Test results were returned to participating schools in April, providing school staff with item-by-item and total-test results at the individual student, classroom and building levels, along with the comparable statewide averages. An interpretive manual was mailed along with the results. At the state level, three interpretive panels met in June to review the results, judge the adequacy of student performance, identify factors affecting the results and recommend ways to improve or maintain performance. This report documents the interpretive panels' conclusions and recommendations. In order to compare Oregon students' achievement with that of students at the national level, fourth and seventh grade reading tests were equated with the Comprehensive Tests of Basic Skills, allowing for a norm-referenced interpretation of statewide reading achievement for those grade levels. (PN)

OREGON STATEWIDE ASSESSMENT 1982



Summary Report

OREGON STATEWIDE ASSESSMENT 1982

Reading, Writing and Computing

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FOREWORD

This report on the statewide assessment conducted last March shows that the performance of Oregon students in the basic skills areas has improved. 27,000 fourth, seventh and eleventh graders who were administered tests in reading, writing and computing performed better generally than those who took similar tests in 1978.

The message is clear: Oregon is "back to basics" and it is no cliché. A renewed commitment was made to basic skills in 1973, and that commitment has been strengthened every year since. Now we are realizing positive results from those efforts. Both at the state level and in the local districts, we intend to continue to work for improvement in student achievement.

For more information, contact Ray Talbert of the Department's Research, Assessment and Evaluation Section, 373-7118, or toll free in Oregon 1-800-452-7813.

Verne A. Duncan
State Superintendent
of Public Instruction

ACKNOWLEDGMENTS

A number of individuals were involved in the statewide assessment: panel and committee members developed materials and evaluated test results; district and school personnel voluntarily administered the tests; ESD personnel provided assistance to local test administrators, distributed test materials, and collected and edited answer sheets; approximately 27,000 students enrolled in some 405 schools around the state participated in testing. In addition, Department of Education basic skills specialists were called upon a number of times for assistance. The work done on contract with National Evaluation Systems was excellent. The cooperation and hard work of all involved were necessary to the success of the project.

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IN BRIEF . . .

The purposes, design and procedures of the statewide assessment are presented here briefly to provide a context within which to understand test results. Those interested in more detail may contact research and assessment staff members at the Department of Education.

Purposes

The State Board of Education initiated the assessment program in 1973 as a means for gathering data on student performance in the basic skill areas. This information is intended to provide educators and the general public with an overall view of trends in student achievement and to provide curriculum planners with the data that are useful when identifying students' relative strengths and weaknesses in reading, writing and computing. In addition, participating schools can use such information to supplement local testing programs; results are provided at the student, classroom and building levels, along with comparative data on statewide performance. However, the assessment is not designed to rank districts or schools on the basis of student achievement.

Assessment Design

Underlying many of the decisions in planning the 1982 assessment was the need to monitor changes in student achievement. With a few exceptions, tests used were identical to those administered in 1978; further, the timing of the assessment (the first week in March), grades tested and the sampling design duplicated the previous assessment. The idea was to establish as valid of a basis as possible for measuring changes in student performance between 1978 and 1982, so that the interpretive panels could examine and compare results and make judgments about the adequacy of student performance in specific skill areas.

Test Development

Because the 1982 tests largely replicated those used in 1978, most test development took place in 1977. At that time, the Department's reading, language arts and mathematics curriculum specialists, in consultation with other education personnel around the state, provided detailed specifications on the tests' main content areas to assure that the results would reflect areas of the curriculum considered important in Oregon. A large pool of field-tested items then was assembled from several sources; that fall, content panels (made up of 76 teachers, curriculum specialists and administrators) met to select test items according to content specifications and levels of difficulty.

In the fall of 1981, content panels again were convened to review the 1978 tests and suggest revisions, mindful of the need to maintain some continuity with the earlier assessment. Modifications recommended by the panels led to item substitutions for fourth and seventh grade computing tests, seventh grade writing, and eleventh grade reading. (See Appendix A for more detail about the changes.) A few minor changes in item wording were made on the other five tests.

Students Tested

Tests were administered during the week of March 1-5 to a total of 27,086 fourth, seventh and eleventh grade students in 405 schools selected at random. No one student took more than one test and, generally, only one grade level at a given school was tested. The sampling design assured that schools of all sizes from all regions of the state were represented.

1978-82 Comparison of Results

All comparisons of results in this report are based on identical test items. In order to simplify the presentation of results at the subcluster level, some subclusters have been combined and renamed.

How Results Used

Test results were returned to participating schools in April, providing school staff with item-by-item and total-test results at the individual student, classroom and building levels, along with the comparable statewide averages. An interpretive manual was mailed along with the results.

At the state level, three interpretative panels met in June to review the results, judge the adequacy of student performance, identify factors affecting the results and recommend ways to improve or maintain performance. This report documents the interpretive panels' conclusions and recommendations.

In order to compare Oregon students' achievement with that of students at the national level, fourth and seventh grade reading tests will be equated with the Comprehensive Tests of Basic Skills (CTBS), allowing for a norm-referenced interpretation of statewide reading achievement for those grade levels.

HIGHLIGHTS OF THE 1982 ASSESSMENT RESULTS

Several noteworthy trends emerged in the results of the 1982 assessment; the highlights presented here are not intended to be as comprehensive as the analysis of the results that follows, but serve instead as a concise overview of how well students performed according to the three interpretative panels.

Reading

Grade Four

- In all four skill clusters (word attack, vocabulary, comprehension, application), fourth graders scored impressive gains in performance when compared with 1978.

- Nineteen items were common to the fourth grade reading assessments for 1975, 1978 and 1982. The 1982 item scores were all higher than those for 1975, with an average gain of seven points in word attack skills, four points in comprehension, and nine points in the area of application, indicating a continued trend over the past seven years toward improved reading skills.

- Fourth graders' growth as indicated by percent of correct responses was statistically significant* on more than two-thirds of the test items.

- Fourth graders showed the greatest improvement in literal comprehension and word attack skills (both increased an average of six percentage points).

- The use of phonics skills also was identified as an area in which fourth graders are doing well. Average scores on the five items in this subcluster increased from 83 to 86 percent.

- There is a need for more improvement at the fourth grade level in the areas of dictionary skills and identifying prefixes and suffixes. While students did improve in these two areas, the panel felt that scores** could be higher.

Grade Seven

- At the seventh grade level, students also demonstrated growth across all four skill clusters.

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*A change in score is considered "statistically significant" if there is less than a five percent probability that the gain or loss is due to random measurement error. In this report, the term "significant" is used to indicate a statistically significant gain or loss.

**A "score" on an item is the percentage of students answering the item correctly. This is also sometimes referred to as a "p-value."

- Seventh graders registered significant gains on almost half of the test items (26 out of 58). Only two items declined significantly.

- As was true with the fourth grade results, seventh grade increases in literal comprehension were gratifying; significant gains were evident on 12 of 22 items.

- With regard to inferential comprehension, however, the panel was concerned with the lack of improvement and lower scores in comparison with other skill areas (the average score remained at 68 percent correct).

Grade Eleven

- Eleventh graders' average scores on the items used in both 1978 and 1982 were relatively constant. Each of three skill cluster scores dropped between one and three points.

- Even though eleventh graders' vocabulary scores declined, the panel felt that performance in this area was still satisfactory.

- The panel was disappointed with the results in comprehension and application, even though the addition of new items increased the test's difficulty level in these areas. Concern was expressed in that these skills are considered essential for later success in college or on-the-job.

Writing

Grade Four

- Fourth graders did well on the objective portion of the writing assessment, with significant gains shown on half of the items (13 out of 27), and no significant declines.

- The largest growth at the fourth grade level came in the areas of identifying complete sentences and sentence fragments (up five points), identifying complete subjects and complete predicates (up nine points), and identifying the meaning of abbreviations (up seven points).

- The panel was disappointed with performance on the fourth grade writing exercise--over two-thirds of the students received holistic scores of "2" or below, compared with 58 percent in 1978.

Grade Seven

- Seventh graders also showed impressive gains on the multiple choice test; significant improvement was demonstrated on 16 out of 37 items. No significant declines occurred on any items.

- The greatest growth was found in the area of seventh graders' ability to identify complete sentences, run-ons and sentence fragments (an increase of 11 points).

- In the areas of punctuation and capitalization, seventh grade students also performed quite a bit better in 1982, gaining an average of six and eight points, respectively.

- On the seventh grade writing sample, almost half of the papers received scores of "2.5" or above (on a scale of "1" to "4"); only seven percent received a rating of "1."

Grade Eleven

- Of all the 1982 writing assessment results, the interpretative panel was most pleased with eleventh graders' performance on the two writing exercises. Four years ago, about two-thirds of the papers were rated "2" or below; in 1982, only 35 percent were scored that low on the first exercise, 42 percent on the second.

Computing

Grade Four

- In performing operations with whole numbers and decimals (the two computing skill clusters common to both the 1978 and 1982 assessments), fourth graders gained an average of five points. Thirteen out of forty repeated items showed significant increases.

- Fourth graders improved the most (up seven points) on multiplication and division of whole numbers; out of ten items, nine showed significant increases.

- Performance on word problems at the fourth grade level remained constant over the past four years. The panel felt that this area warrants more attention.

- The panel rated scores on the fourth grade problem-solving skill items as below satisfactory, resulting in a recommendation that greater emphasis be placed on problem-solving skills (which are broader than the skills used in solving traditional textbook word problems).

Grade Seven

- In all three skill clusters in both the 1978 and 1982 tests (operations with whole numbers, fractions and decimals), seventh grade students made substantial gains on 31 out of 49 items. No item showed a significant loss.

- The panel was particularly pleased with seventh graders' growth in the decimals cluster (up eight points).

- Even though scores on the fractions cluster were quite a bit lower than for problems involving whole numbers and decimals, the panel was not disappointed--computation with fractions is considered a more difficult and isolated skill. Furthermore, significant gains were achieved on six out of the nine items involving fractions.

- Compared with straight computation and word problems, problem-solving scores were considerably lower for seventh graders. Again, the panel felt that greater attention should be focused on this area.

Grade Eleven

- Across the eleventh grade test as a whole, performance in 1982 was the same as in 1978.

- The panel regarded eleventh graders' computational skills with whole numbers and decimals as good generally, but felt that skills in solving word problems need improvement.

- Eleventh graders' performance was judged particularly unsatisfactory on problems involving geometry, percentage calculations and consumer math.

READING: RESULTS AND INTERPRETATION

Reading skills were measured using multiple-choice tests, sixty to ninety minutes in length. Content was selected in light of predominant reading instruction objectives from around the state: as shown in Table 1, tests measured vocabulary, comprehension and application skills; in addition, the fourth and seventh grade tests covered word attack skills.

Table 1

Number of Items Used in Reading Skill Clusters at Grades 4, 7 and 11

	Grade		
Cluster	4	7	11
Word Attack	19	6	0
Vocabulary	9	13	15
Comprehension	20	27	25
Application	12	13	20
Whole Test	60	59	60

The fourth and seventh grade tests were virtually identical to those used in the 1978 assessment; at the eleventh grade level, however, approximately half the items were new in 1982.

The Reading Content Panel recommended this change in order to raise the difficulty level of the test* and increase the coverage of application skills. In the following comparisons of the results for 1978 and 1982, only scores obtained on identical items are used. Eleventh graders' performance on the entire set of 1982 items is shown separately.

Reading Assessment Results

Figure 1 on the following page displays the 1978 and 1982 score comparisons in major skill clusters for each grade tested. The shaded bars show the average percentage of correct responses in 1982; the open bars indicate comparable results from 1978. Figures 2, 3 and 4 (pages 9 to 11) present the scores for specific skill subclusters at each grade level.

*Several items used in the 1978 reading test did not challenge eleventh graders (42 percent of the items were answered correctly by over ninety percent of the students taking the test). In order to obtain better information about their reading skills, items of greater difficulty were substituted, particularly in the comprehension cluster.

FIGURE 1: COMPARISON OF STUDENT PERFORMANCE ON TOTAL TEST AND MAJOR SKILL CLUSTERS 1978 AND 1982 READING

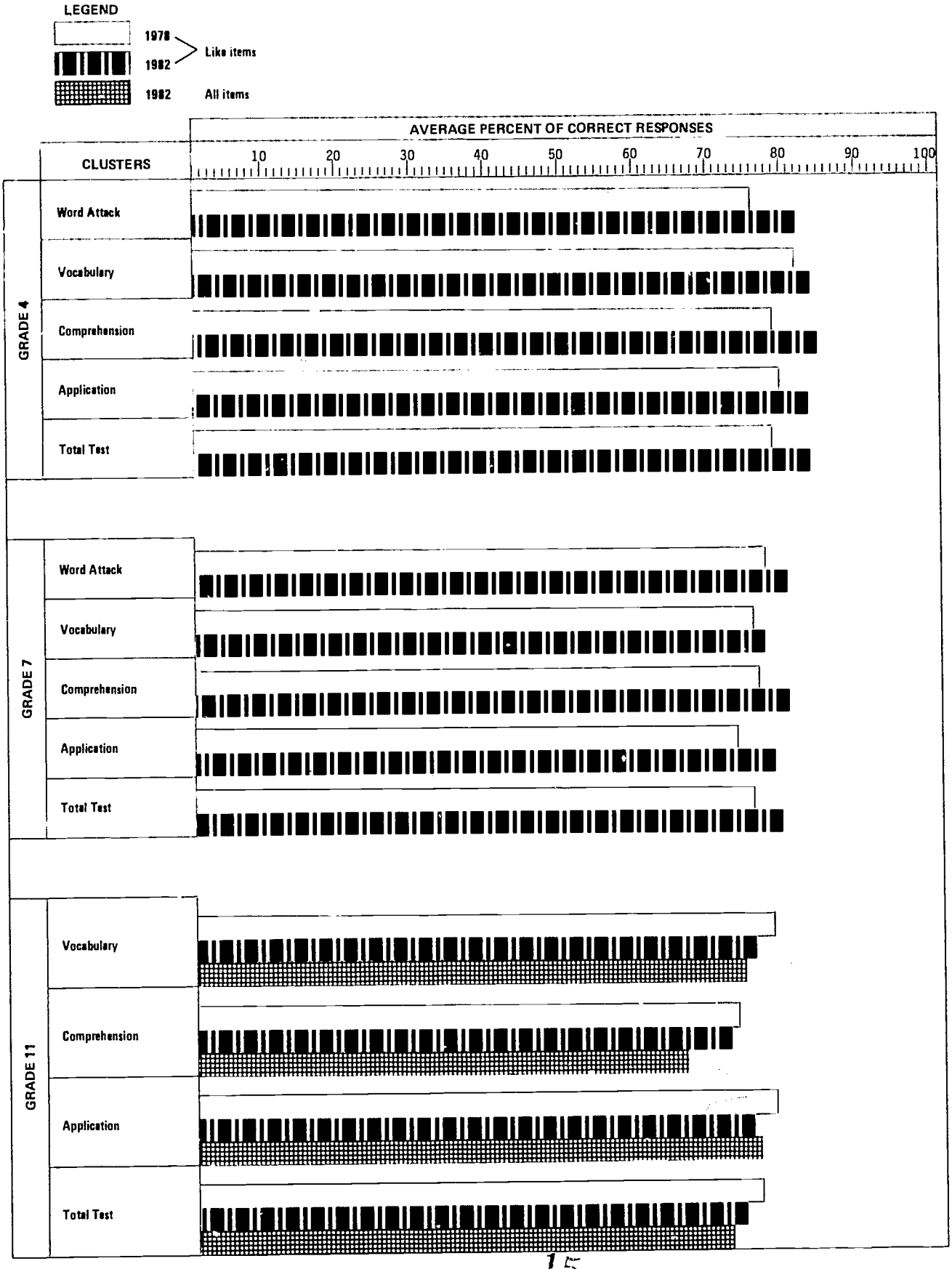


FIGURE 2: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 READING—GRADE 4

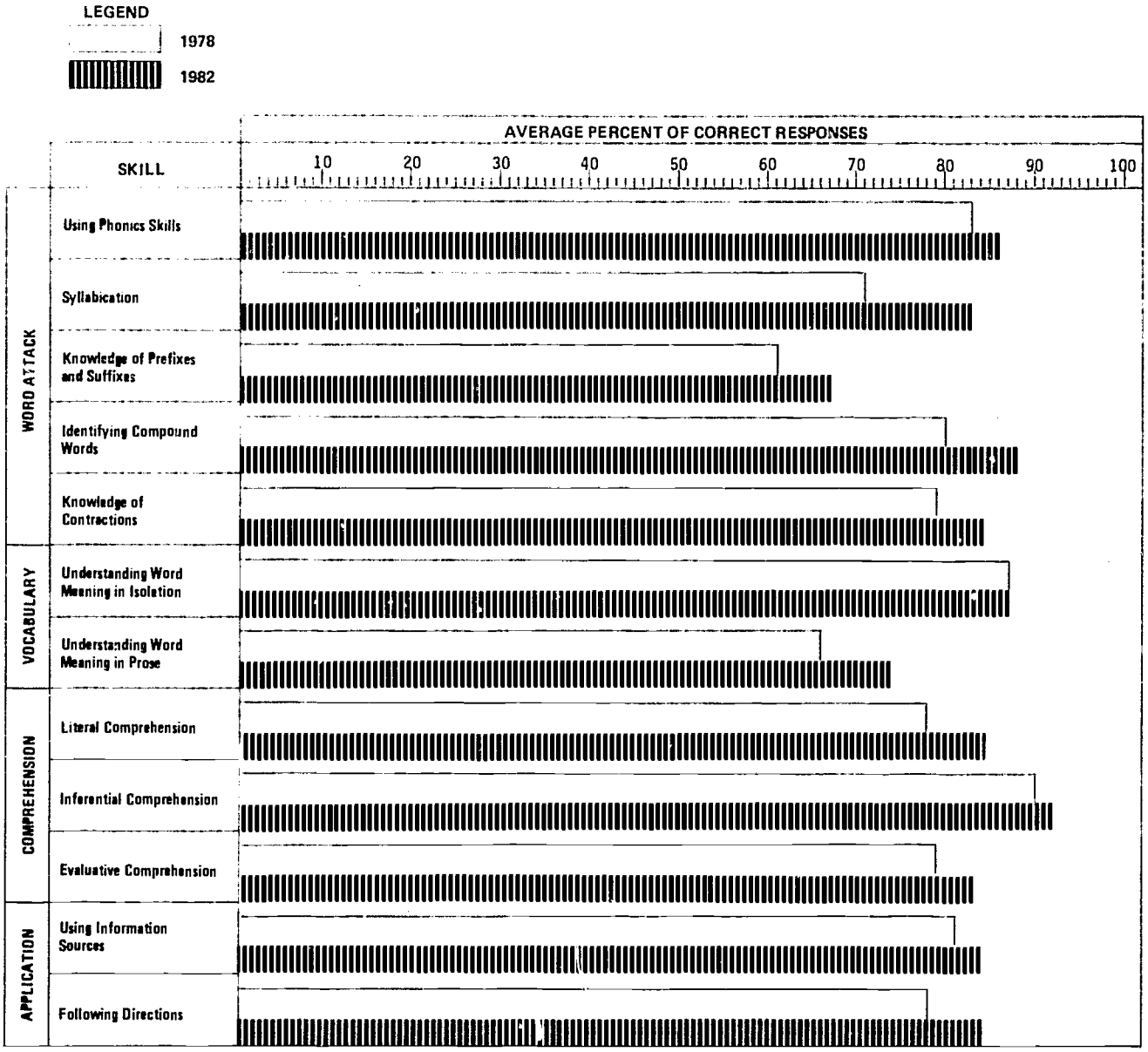


FIGURE 3: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 READING—GRADE 7

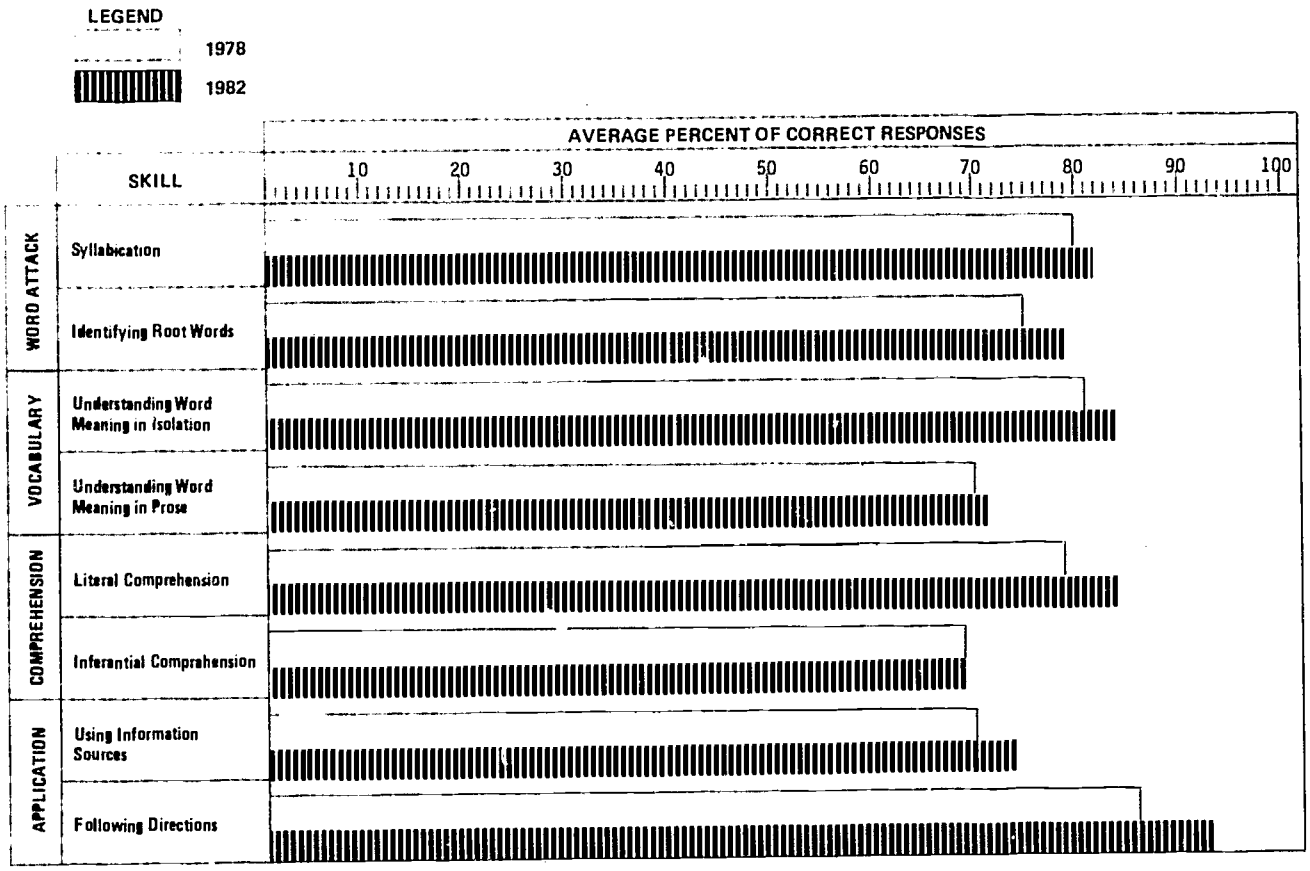
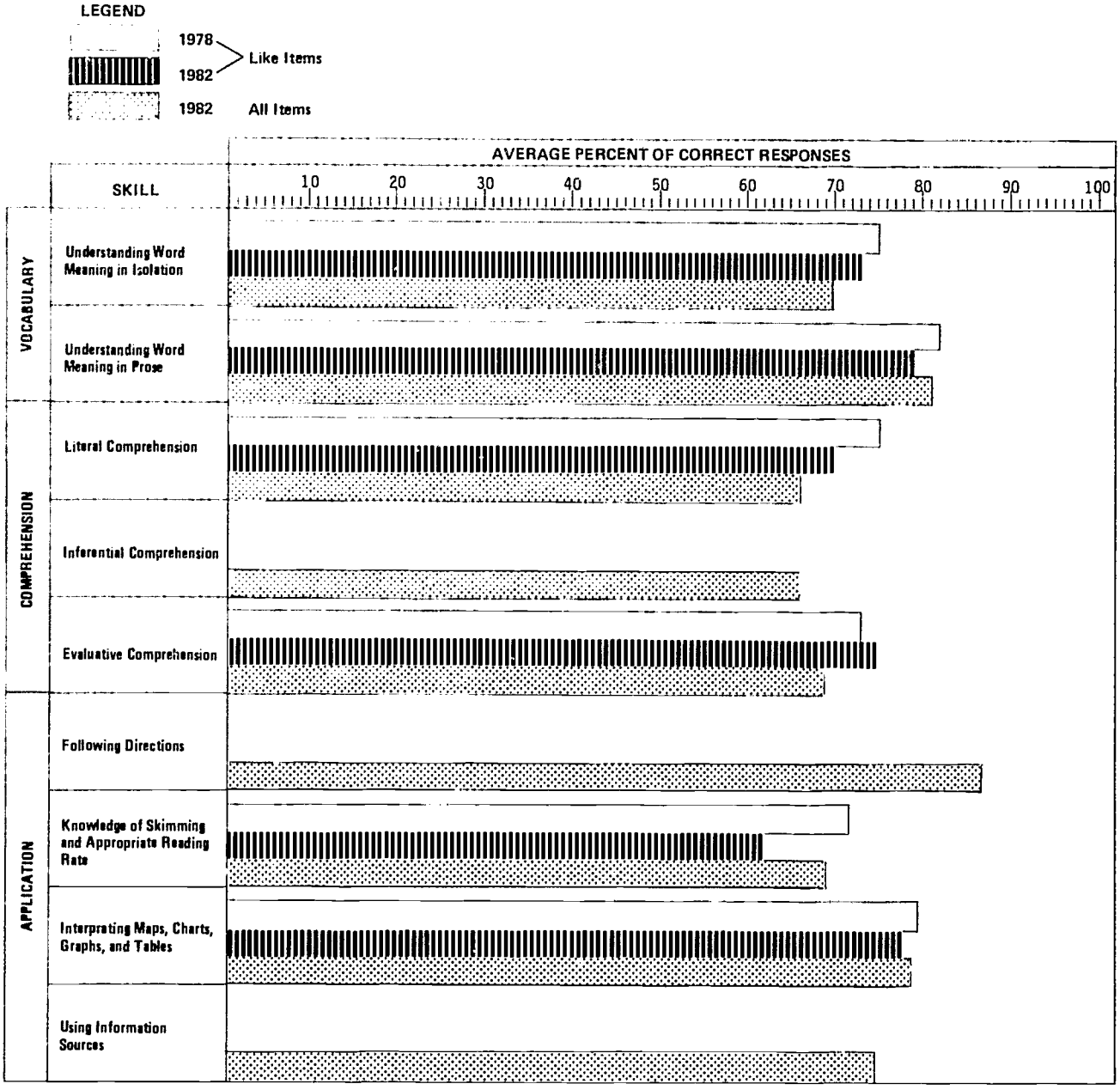


FIGURE 4: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 READING–GRADE 11



Interpretation of Reading Results

In order to analyze the assessment results, interpretative panels were convened in June 1982; members included teachers from each of the grades tested, district curriculum directors, and content specialists from colleges and universities. Each panel was asked to: judge the adequacy of student performance, identify factors which may have influenced the results, and suggest ways that performance might be improved or maintained. Observations reported here represent panel members' opinions as individuals and, as such, do not necessarily reflect the position of the Department of Education.

Looking at student performance across the three grades tested, the Reading Interpretive Panel pointed out a definite pattern: overall scores exceeded the panel's performance standards at the fourth grade level, met standards at the seventh, and fell below at the eleventh. However, each grade registered certain exceptions to this trend for specific skill subclusters, which will be discussed below.

Comparing performance for 1978 and 1982, the panel was extremely pleased with fourth and seventh graders' improvement overall; they were disappointed with eleventh graders' slight decline. The panel recommended that greater emphasis be placed on reading skills in the upper grades, and that the current level of effort be maintained in the elementary.

The panel's discussion of the results at specific grade levels is presented below:

Fourth Grade

- As shown in Figures 1 and 2, gains were registered in each of the four skill clusters and in 11 out of 12 subclusters ("word meaning in isolation" remained constant). On over two-thirds of the items, there were statistically significant increases in the percentage of correct responses.

- Gains in literal comprehension were noted as particularly impressive, especially on items measuring the ability to identify the main idea of a passage. The average increase on the seven items in this area was ten percentage points (from 72 percent in 1978 to 82 percent in 1982). This result was gratifying due to the fact that the previous interpretive panel had rated 1978 scores as below satisfactory on four out of seven items. Three sample items measuring literal comprehension follow:

  Read the paragraph and answer the question below.

  The earth orbits around a medium-sized star, the sun. The sun helps give life to everything on earth. Green plants need light from the sun to grow. Animals eat plants, and people eat animals. Without sunlight the earth would be frozen, dark, and dead.

Choose the main idea of the paragraph.

	Percent Correct	
o *The sun is a medium-sized star.*		
o *Animals eat plants.*		
• *Life on earth depends on the sun.*	1978	1982
o *The earth orbits around the sun.*		
o *I don't know.*	65%	78%

Read the paragraph and answer the question below.

Mary McLeod Bethune was a great black woman. In 1904, she started a school for young black women. Today, both men and women go to the school. Mary McLeod Bethune did much more than start a school. She helped many people learn. She did so much for so many people that four Presidents asked her for her ideas.

Which title best tells what the story is about?

	Percent Correct	
• *"A Great Black Woman"*		
o *"Helping Presidents"*		
o *"How to Start a School for Girls"*	1978	1982
o *"Life in Florida"*		
o *I don't know.*	73%	84%

Read the paragraph and answer the question below.

In late spring, wild flowers bloom all over the woods and hillsides. Many colors may be seen. Some of the flowers which may be seen are lilies, violets, Jack-in-the-Pulpit, bloodroot, and Pink Lady's Slipper. In shady areas many ferns and plants may be seen.

Choose the main idea of the paragraph.

	Percent Correct	
o *Violets bloom in the spring.*		
• *Wild plants and flowers may be seen in the spring.*	1978	1981
o *Ferns are found in the woods.*		
o *Lady's Slippers are pink.*	76%	83%
o *I don't know.*		

- The use of phonics skills also was singled out as one on which fourth graders are doing well. Average scores on the five items in the sub-cluster increased from 83 to 86 percent over the past four years. A sample item follows:

Read the words. Find the group of three words that rhyme.

	Percent Correct	
o *more, mare, air*		
o *floor, flour, flower*		
• *floor, store, more*	1978	1982
o *store, stare, star*		
o *I don't know.*	85%	86%

- Two areas in which the panel indicated a need for more improvement were dictionary skills (measured by three items in the "using sources of information" subcluster), and identifying prefixes and suffixes. Dictionary items required use of guide words at the top of the page to locate a given word; as such, this also was a test of the ability to alphabetize words. A sample item on identifying prefixes and suffixes is shown below.

The word disagreeable has:

	Percent Correct	
o *only a prefix.*		
o *only a suffix.*		
• *both a prefix and a suffix.*	1978	1982
o *neither a prefix nor a suffix.*		
o *I don't know.*	59%	64%

Seventh Grade

- Seventh graders' scores on the test as a whole--and seven out of eight subclusters--improved over 1978 levels (inferential comprehension did not change). Forty-five percent of the items (26 out of 58) showed significant gains in 1982, while only three percent (two items) declined significantly, indicating that improvements in reading instruction are having an impact in the upper elementary grades.

- The one subcluster in which performance remained stable was inferential comprehension. The panel members stated that this also was an area in which seventh graders showed the greatest weakness, and one in which teachers are urged to devote more attention to the skill of extracting implicit meaning from prose. Two sample test items:

Ann says that the ice cap at the North Pole is melting at the rate of 3% per year. Dina says that this isn't true because the ice cap is really melting at the rate of 7% per year.

We know for certain that:

	Percent Correct	
o *Ann is wrong.*		
o *Dina is wrong.*		
o *they both might be right.*	1978	1982
• *they can't both be right.*		
o *I don't know.*	61%	63%

Read the statements and answer the question below.

The old man sobbed at his loss.
Every item on the shelf had been knocked to the ground.
Neighboring shopkeepers suffered the same types of losses.
Windows were smashed in several buildings.
Fifty dollars was missing from the drawer.

Which of the following is the probable cause of the effects listed above?

	Percent Correct	
o *A tornado hit the area.*		
o *Police were looking for evidence of a crime.*	1978	1982
o *The old man's store had been robbed.*		
• *Vandals made a mess of the whole block.*	52%	45%
o *I don't know.*		

- Literal comprehension scores, on the other hand, were regarded as satisfactory. As with the fourth grade, scores on several items measuring comprehension of a passage's main idea increased significantly. Apparently, the panel concluded, the same amount of attention given to literal comprehension in the primary grades is being continued in the upper elementary grades as well. Two sample main idea exercises from this subcluster follow:

The tiny brown mole eats almost anything he can find. He tunnels his way through the soil, looking for food. He eats his weight in insects every day. Earthworms are more tasty to the mole than the insects are. The mole is among the hungriest of animals. He starves to death if he goes without food for just a half day.

This story mainly tells:

	Percent Correct	
o *why moles like earthworms best.*		
o *about moles' color.*		
• *about moles' eating habits.*	1978	1982
o *why moles make tunnels.*		
o *I don't know.*	83%	95%

In the past, some Indians made fishhooks from the bent bones of birds and other animals. They also used a small straight bone called a bone gorge. It was sharpened on both ends. A line was tied to the middle. The bone gorge was then baited. When it was swallowed by a fish, the line was jerked. This turned the bone crosswise. The fish was caught.

This story mainly tells:

- o *where Indians got bent fishhooks.*
- • *how a bone gorge was used to catch fish.*
- o *how much Indians like fish.*
- o *how Indians baited a bone gorge.*
- o *I don't know.*

Percent Correct	
1978	1982
74%	83%

- Another observation that paralleled the fourth grade was the panel's concern with dictionary skills; again, the abilities to use guide words and to alphabetize were measured. For example:

Which one of the following words would be found on a dictionary page having the guide words hand - hint?

- • *haul*
- o *gaul*
- o *half*
- o *hurt*
- o *I don't know.*

Percent Correct	
1978	1982
62%	67%

Although panel members were pleased with the five percent gain on this item, they felt that more than two-thirds of seventh graders should be able to answer this type of question correctly.

Students' ability to use an index was another skill in the application cluster that the panel regarded as below satisfactory. The item measuring index usage is presented here:

The following question refers to the part of an index below:

Hammers, 4, 5, 65
* ball peen, 76*
Hangers, picture, 112
Heating elements, 60, 61, 64
* used in appliances, 70*
High-speed drills, 11
Hinges, 71
Hoses, appliance, 51
Hot plates, 87, 96-98

On what page would you find information about heating elements used in appliances?

		Percent Correct
o	*51*	
o	*60*	
•	*70*	1982
o	*76*	
o	*I don't know.*	61%

(Item not used in 1978.)

Eleventh Grade

- As mentioned earlier, the panel was somewhat disappointed with the reading results at the eleventh grade level. This was especially true with regard to comprehension and application skills, which are considered essential for later success in college or on the job. The panel felt that these results may indicate a tendency to view reading instruction as the domain of elementary teachers. They pointed out the need to provide students with assistance in reading continuously throughout the secondary grades.

- Of three areas on which eleventh grade students were tested, the panel felt that vocabulary skills were developed to a satisfactory extent, even though there was a slight decline in average score (from 79 percent correct to 76 on the seven items used in both assessments). An item used to test knowledge of word meaning in prose follows:

  Read the sentences and choose the best definition for the underlined word.

  The man built the machine from pieces of pipe, wood, and wire. He had fabricated a new machine which could be used to smash cans and bottles.

		Percent Correct
•	*created*	
o	*used*	
o	*broken*	1982
o	*bought*	
o	*I don't know.*	97%

(Item not used in 1978.)

- Literal comprehension scores declined an average of five percentage points (from 75 percent down to 70 percent correct) on the five items used in 1978 and 1982. For example, the item below tested student comprehension of a p ragraph's main idea:

Read the paragraph, then answer the question below.

The land is typical brush country. There is an abundance of prickly pear and other forms of cactus. Mesquite grass abounds, and in lower places, foxtail and other tall grasses grow. In early times, the plains for twenty miles around were covered chest-high with zacata de bestia, but all this tall grass is gone now.

What is the main topic of the paragraph?

	Percent Correct	
o *how cactus grows in brush country*		
• *what grows in typical brush country*	1978	1982
o *where to collect tall grasses*		
o *early days in brush country*	76%	73%
o *I don't know.*		

- All inferential comprehension items were new in 1982, making it difficult for the panel to judge changes in performance. However, members were concerned with the low scores on items such as the one below:

Read the poem, then answer the question.

REUBEN BRIGHT

Because he was a butcher and thereby
Did earn an honest living (and did not)
I would not have you think that Reuben Bright
Was any more a brute than you or I;

For when they told him that his wife must die,
He stared at them, and shook with grief and fright,
And cried like a great baby half that night,
And made the women cry to see him cry.

And after she was dead, and he had paid
The singers and the sexton and the rest,
He packed a lot of things that she had made
Most mournfully away in an old chest
Of hers, and put some chopped-up cedar boughs
In with them, and tore down the slaughter house.

E. A. Robinson

Reuben "tore down the slaughter house" because:

	Percent Correct
o *his wife had owned the business.*	
o *he was a brute after all.*	1982
o *he had lost his mind.*	
• *he didn't like the killing.*	51%
o *I don't know.*	

(Item not used in 1978.)

- The only subcluster showing improvement was evaluative comprehension (up two percentage points), largely due to gains on the five items designed to measure knowledge of propaganda techniques in advertising. Panel members noted that, in recent years, students have received more instruction in this area, and consequently, higher performance was expected. The largest gain was made on the following item:

  Which of the following advertisements tries to get us to buy the product by using "snob" appeal?

  - o *Mulche's chocolate bars are as American as the "Red, White, and Blue."*
  - o *Everybody loves Mulche's chocolate bars; you will too.*
  - • *More movie stars eat Mulche's chocolate bars than any other variety.*
  - o *Scientists have found that Mulche's chocolate bars are more nutritious than any other chocolate bar.*
  - o *I don't know.*

	Percent Correct	
	1978	1982
•	60%	70%

- The application skills cluster included a wide variety of items that addressed the ability to interpret information in nonprose format and to use information found in various parts of a book (index, table of contents, glossary). The panel had higher expectations for student application skills than was demonstrated in the results, several felt that a marginal amount of time is being spent on such skills, but that improvement should be forthcoming due to the fact that publisners are including more application skills in the newer reading textbooks for the elementary grades.

Factors Affecting Results

Panel members were asked to draw upon their own knowledge and experience in the field of reading in order to explain the relative differences in performance and the changes observed since 1978. While it is difficult to establish cause and effect in interpreting assessment results, the panel did reach consensus on several explanatory themes.

With regard to the changes in performance between 1978 and 1982, the following factors were cited:

- Improved reading instruction has become an increasingly high priority for elementary education over the past several years. The "back to basics" movement, focusing on the "three Rs," has resulted in pressure to improve students' reading achievement, especially in the early grades. Fourth and seventh graders' gains were interpreted as reflecting this increased emphasis on reading. However, this same level of effort does not carry through to the secondary grades, and a continued effort to boost reading skills beyond grade eight would be required if eleventh graders' scores are to improve.

- Panel members pointed out that instructional methods and materials have improved in recent years. Sophisticated instructional management systems are now in greater use at the elementary level, enabling teachers to do a better job of diagnosing learning needs and prescribing appropriate instructional activities. This trend toward the use of mastery learning models has reduced the proportion of students who fall behind their peers in reading achievement. Publishers of reading textbook series are beginning to respond to teacher requests for skills management systems and are providing a greater variety of materials keyed to specific skills. Thus, rather than having to undertake the difficult task of developing their own management systems, teachers now are finding materials which enable them to do an effective job.

- School districts are taking steps to better coordinate their reading programs across grade levels and classrooms. Previously, individual teachers tended to work independently, combining materials from a wide variety of sources; currently, a greater number of schools are adopting one reading series for several grade levels in order to build a better articulated, more sequential reading curriculum. This movement is in part the result of Oregon's goal-based planning requirement, according to which districts need to establish program goals which describe expected outcomes for students. The panel felt that the reading assessment results support the need for goal-based instruction and recommended that districts continue to refine these programs.

- Increases in reading achievement at the elementary level are indicative of the impact of a number of additional programs targeted for low achievers. Not only do supplementary programs augment the amount of time allotted to reading instruction, they also are better coordinated with regular classroom programs.

- Teachers have been offered numerous opportunities for inservice training in the area of reading instruction. The Right to Read program helped train more than 800 Oregon educators over an eight-year period. As one panel member remarked, "Oregon's Right to Read effort impacted the state more than any program I've ever seen." Numerous other professional development activities are provided through colleges and universities, professional organizations, ESDs, and the districts themselves.

In short, the panel identified a complex mosaic of interrelated factors that have played a part in improving reading performance at the elementary level, each reinforcing the others toward promoting more effective instruction in the area of reading.

The lack of comparable improvement at the eleventh grade level was attributed largely to the fact that reading as such typically is not an explicitly defined part of secondary school curriculum (although this is beginning to change). The panel felt that content area teachers should have the responsibility to follow through at the junior high and high school levels in furthering students' reading skills. As members pointed out, there are several highly effective techniques for developing reading abilities in the context of subject matter instruction. They urged secondary teachers to devote more attention to reading skills as a part of the regular curriculum, acknowledging that this

will require some effort and a sustained commitment to staff development on the part of school districts.

The panel also pointed out that maintaining performance levels reached in the fourth and seventh grades could be difficult during this period of fiscal constraint in public education. Several of the causal factors identified above are not without cost; these include instructional materials and management systems, supplementary programs for low achieving students, and inservice opportunities for teachers.

WRITING: RESULTS AND INTERPRETATION

Writing performance in grades four and seven was measured through a combined use of objective items and an actual writing sample; eleventh grade students completed two writing exercises. The multiple-choice tests were designed to measure knowledge and skills in the areas of writing convention, grammar and organization. Table 2 shows the number of items included in each cluster.

Table 2

Number of Objective Items Used in Writing Skill Clusters at Grades 4 and 7

	Grade	
Cluster	4	7
Writing Conventions	13	26
Grammar	11	9
Organization	4	3
Whole Test	28	38

Direct Measures of Writing Skills

The exercises utilized to assess students' actual writing ability are described in the following paragraphs.

Fourth graders wrote in response to the following topic:

> *Write a paragraph which explains how you do one of the following:*
>
> *Wash a dog*
> *Make a sandwich*
> *Build a campfire*
>
> *Explain what you do from beginning to end.*

Seventh graders responded to the following topic:

> *Write about a subject (object, event, animal or person) which has deep personal meaning for you and has been a special part of your life. You may want to describe the subject, tell how the subject came into your life, or explain how the subject has taken on meaning through time.*

The two eleventh grade writing exercises included the same topic as above ("Write about a subject . . . that has deep personal meaning . . .") as well as the following:

Suppose that you are a member of a group of students who have decided on a much needed improvement for your school. Write a persuasive essay in which you specify the improvement and convince the principal and the school board that the change is needed.

Writing assessment test content was unchanged from 1978, with two exceptions. Previously, seventh grade students were asked to write a letter to a pen pal and another letter ordering a pair of seahorses, neither of which the Writing Content Panel felt elicited representative student writing samples; the "meaningful subject" assignment was substituted instead. Two writing exercises were deleted at the eleventh grade level: refining the "school improvement" essay, and writing a job application letter in response to a help wanted advertisement.

Test Scoring

As in 1978, writing samples were scored holistically by pairs of raters, using a four-point scale. With holistic scoring, specific aspects of writing (such as grammar, punctuation, organization and vocabulary) are not focused on explicitly; rather, an overall impression of each essay is formed relative to model papers (referred to as "rangefinders") which are selected to exemplify each scale point. Samples of rangefinders used in 1982 can be found on pages 29 to 36.

In order to establish the comparability of readers' standards between 1978 and 1982, the rangefinders used in 1978 were scored along with the 1982 papers. The 1978 rangefiners' designated scale points and the scores assigned by the 1982 readers were highly comparable (the average discrepancy did not exceed one-tenth of a scale point on any of the writing exercises). This provides strong evidence that the 1982 readers used rating standards equivalent to those of the previous assessment, enabling score comparisons to be made. A more detailed description of the procedures used in scoring the 1982 writing samples is available from the Department of Education.

Writing Assessment Results

Figure 5 on the following page compares the 1978 and 1982 objective item scores for major skill clusters and the test overall; Figures 6, 7 and 8 (pages 26 to 28) present the results for specific skill subclusters and the writing exercises at grades 4, 7 and 11. As before, the results for the multiple choice items are displayed in terms of the average percentage of correct responses. All comparisons are based on items which were used in both assessments.

Writing sample results are shown in terms of the percentage of papers receiving a given rating. A "4" paper represents the best performance, and a rating of "1" indicates poor writing. The "not scoreable" category includes papers which were totally illegible or failed to address the topic in any way. Each paper was judged by two readers whose ratings were then averaged, resulting in fractional scores (i.e., "1.5," "2.5," "3.5") when ratings differed by a point. In these few cases when readers disagreed by more than one point, discrepancies were resolved by the chief reader.

FIGURE 5: COMPARISON OF STUDENT PERFORMANCE ON TOTAL TEST AND MAJOR SKILL CLUSTERS 1978 AND 1982 WRITING

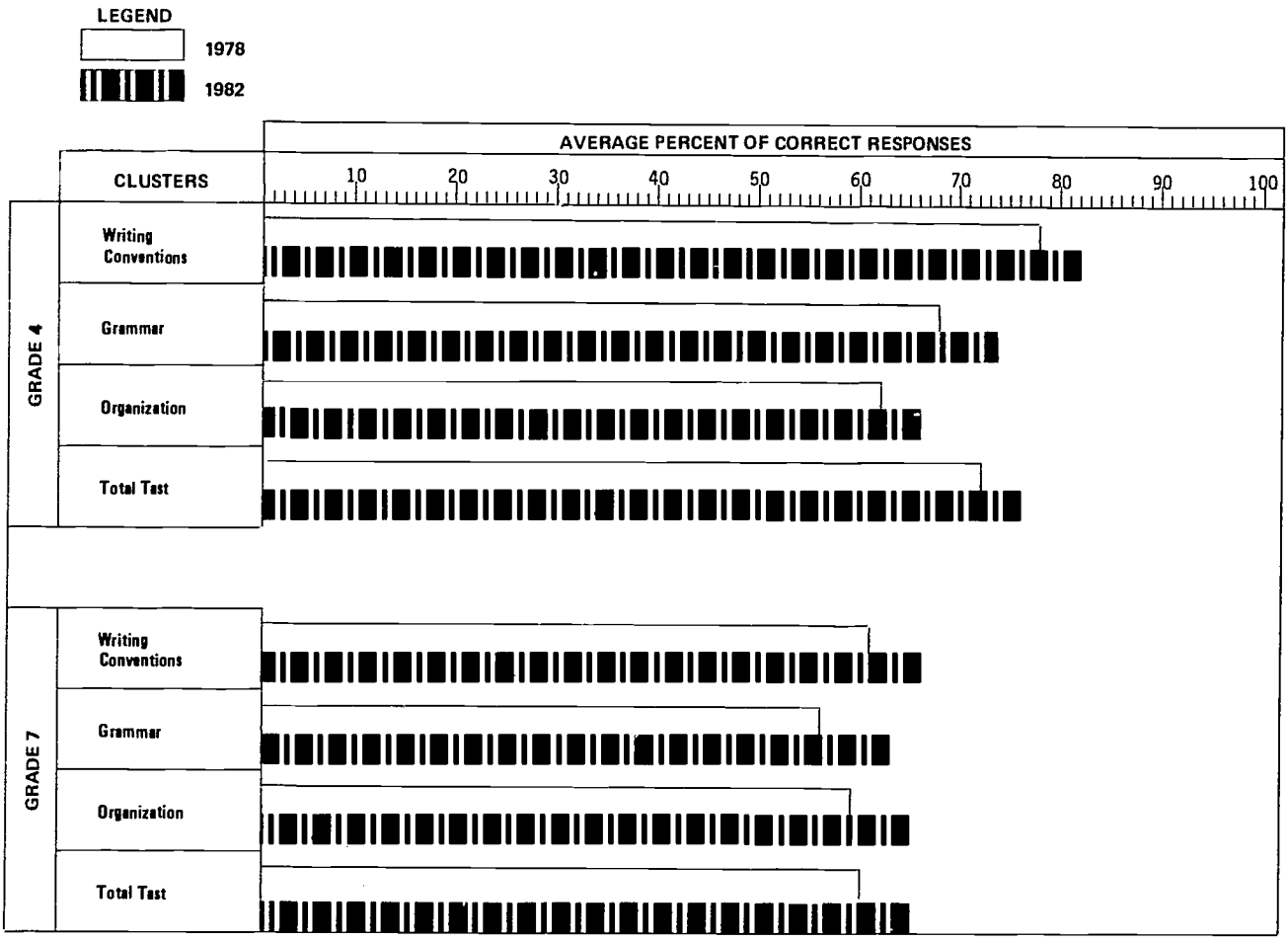
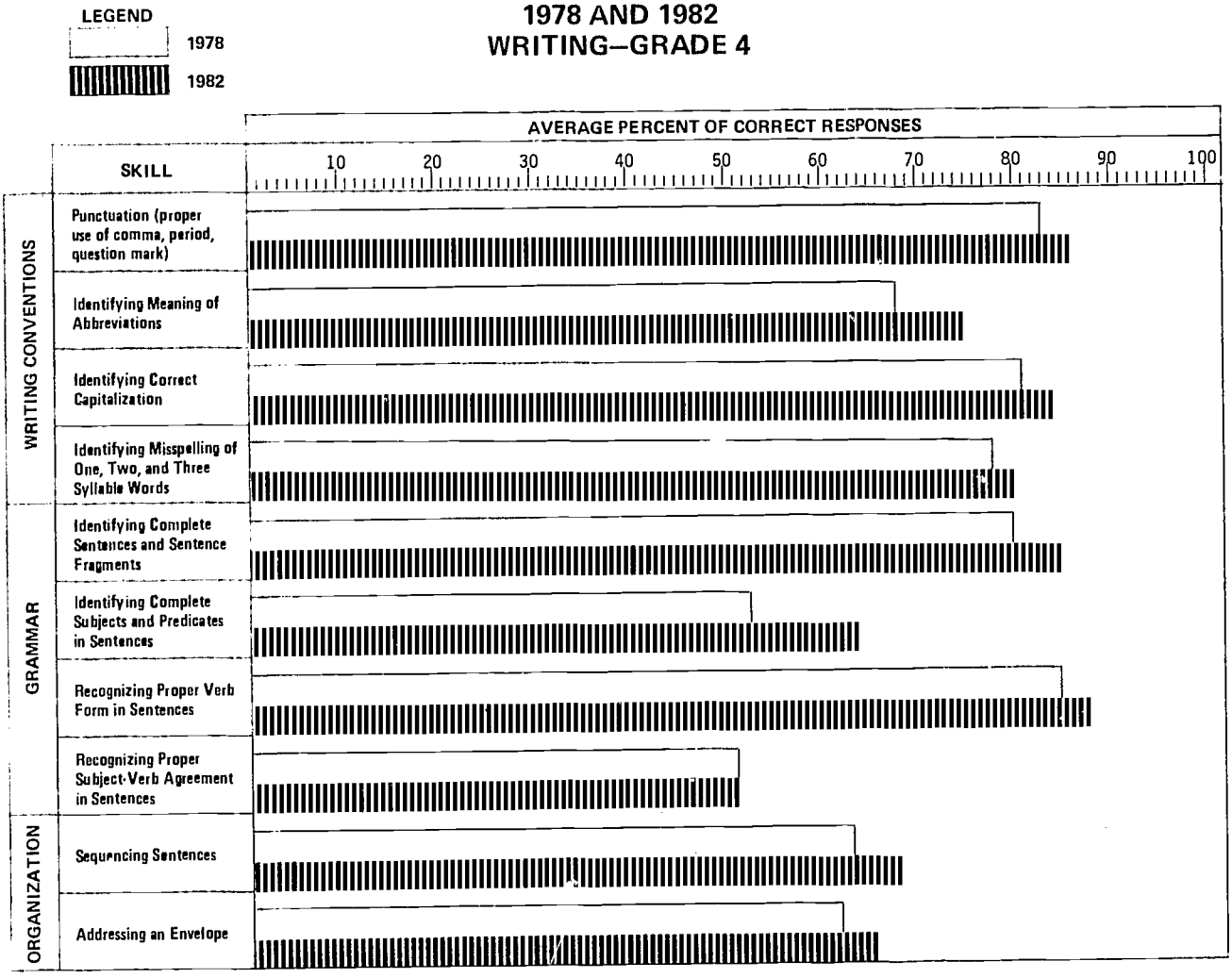
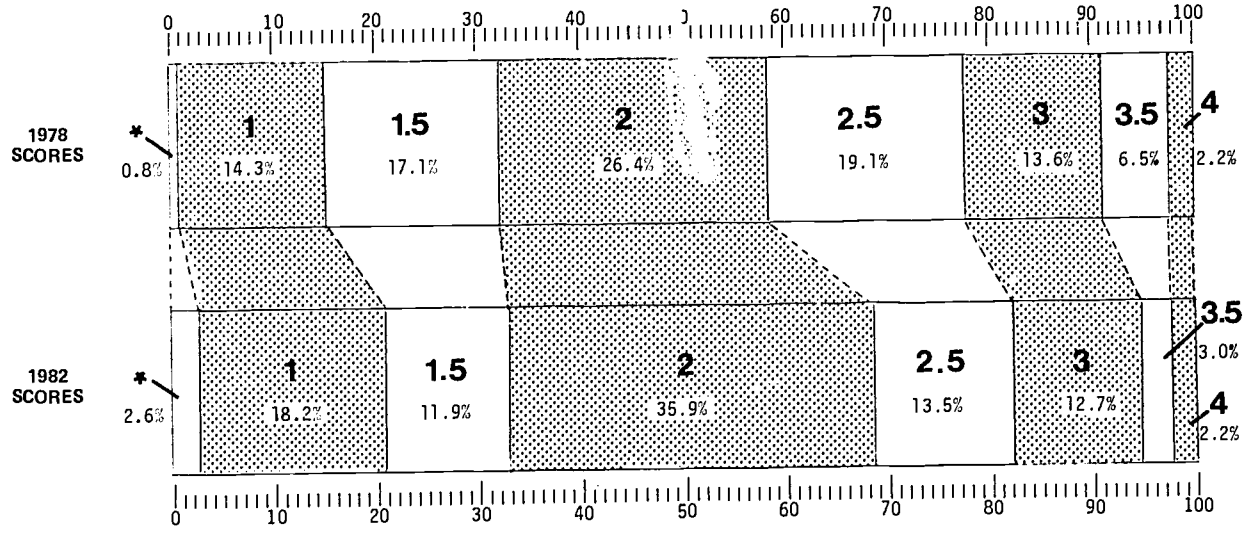


FIGURE 6: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 WRITING—GRADE 4



COMPARISON OF WRITING SAMPLE SCORES 1978 AND 1982—GRADE 4

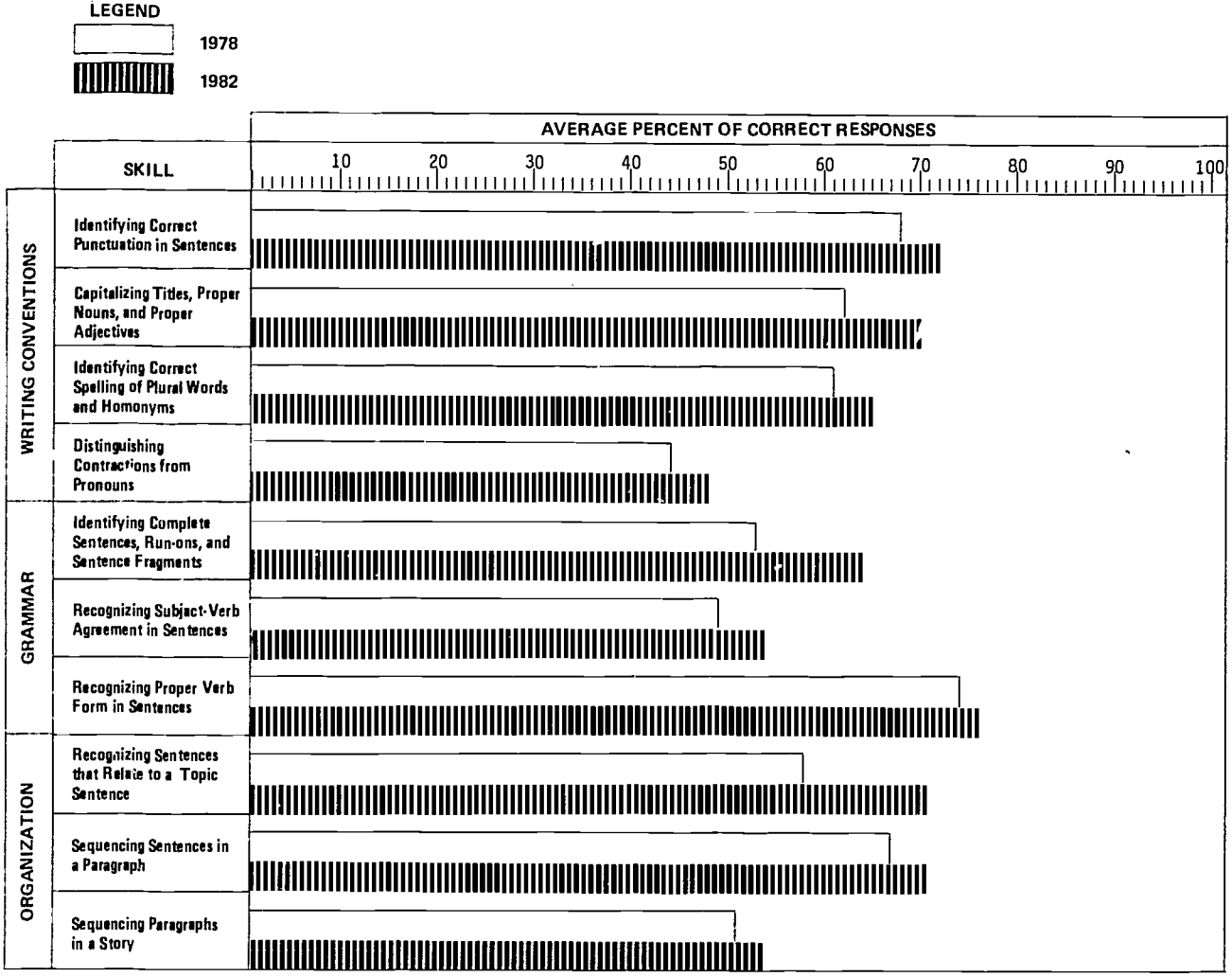


CUMULATIVE PERCENTAGE OF STUDENTS

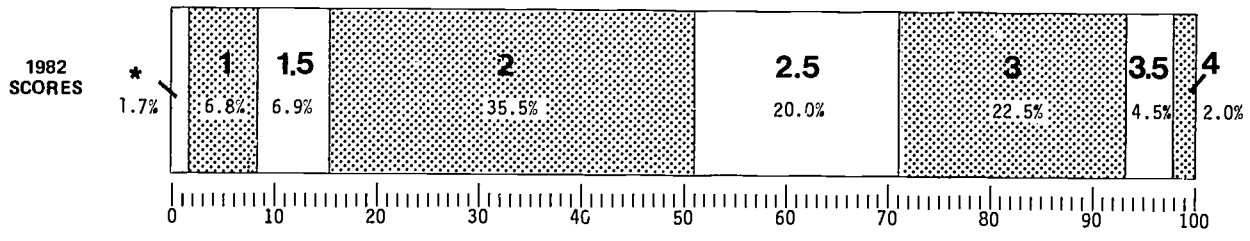
AVERAGE SCORE: 1978—2.15 1982—2.04

* Not Scoreable

FIGURE 7: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 WRITING—GRADE 7



1982 WRITING SAMPLE SCORES GRADE 7



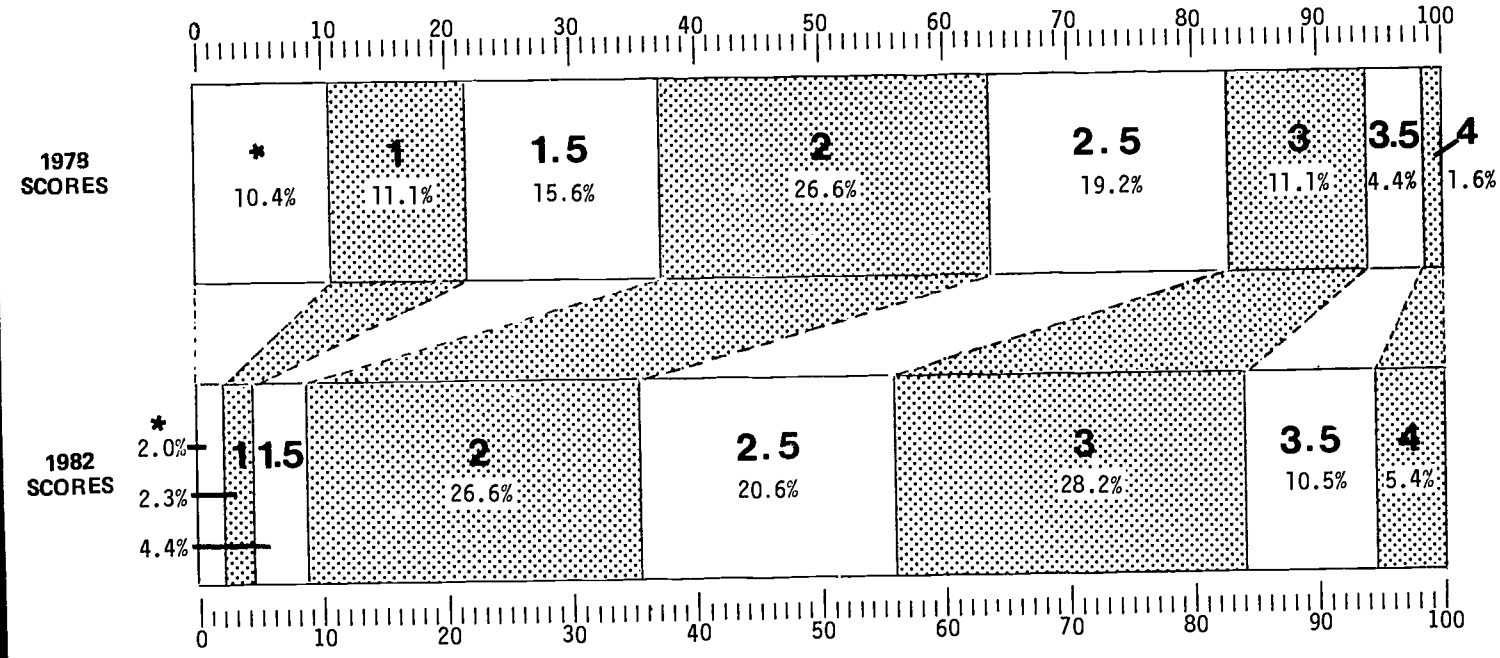
CUMULATIVE PERCENTAGE OF STUDENTS

AVERAGE SCORE: 1982—2.34

* Not Scoreable

FIGURE 8: COMPARISON OF WRITING SAMPLE SCORES 1978 AND 1982 WRITING–GRADE 11

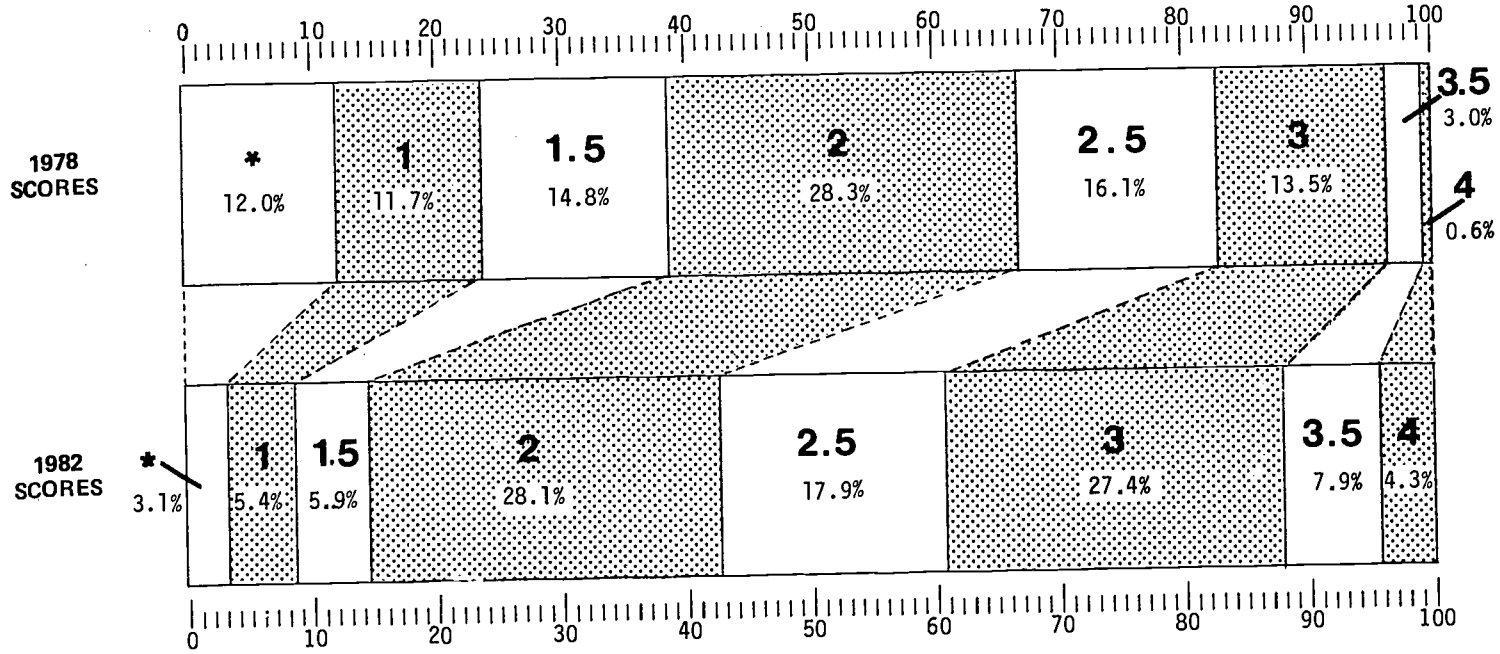
EXERCISE 1



CUMULATIVE PERCENTAGE OF STUDENTS

AVERAGE SCORE: 1978–2.13 1982–2.62

EXERCISE 2



CUMULATIVE PERCENTAGE OF STUDENTS

AVERAGE SCORE: 1978–2.09 1982–2.50

Sample Rangefinder Papers and Score Descriptions

For each of the four scoring categories, rangefinders were selected for training readers. Samples of rangefinder papers can be found on the following pages. These samples make explicit the standards used in scoring the 1982 exercises. In addition, the characteristics of papers at each scale point are described.

When examining sample rangefinders, two factors affecting performance should be noted:

- Students wrote under time limits (thirty minutes for each seventh and eleventh grade essay, twenty minutes for the fourth grade exercise). In the time allowed, students were expected to read the assignment, organize their thoughts, draft an essay and make any revisions or corrections. An impromptu assignment of this sort is likely to underestimate a student's ability to write coherent, polished prose.

- Choice of topics was limited; each exercise allowed the student a certain amount of latitude in selecting the precise subject on which to write, but the general assignment was standardized in order to facilitate scoring. A less artificial writing assignment, in which real stakes are involved (e.g., course grades) could result in better performance. Thus, the samples which follow represent student abilities to produce initial drafts under constraints imposed by testing conditions.

GRADE 4

Write a paragraph which explains how you do one of the following:

Wash a dog
Make a sandwich
Build a campfire

Explain what you do from beginning to end.

Typical Score of 1

The exercise is characterized by serious problems in sentence structure. It is generally very brief, and there is little sense of organization. Errors in usage, spelling, and mechanics are excessive.

how to make a sandwich

First get out A piece of bread then you get out some manase or some butter next you get out some peanutbutter and jam or some bolona then you put them on your bread the you start eating away

Typical Score of 2

The exercise tends to be disorganized and/or tends to lack consistency of focus. It is generally brief. The explanation of how to accomplish the selected task is incomplete and lacking in detail. There is little sentence variety. Run-on sentences and sentence fragments are common problems, and there are conspicuous errors in usage, spelling, and mechanics.

Makeing A Peanutbutter and Jelly Sandwich

First you opening the bread sack then get two pieces of bread out. Then get a knife out and then get the Jelly out and Peanutbutter out. Open the Jelly and Peanutbutter Lid. Then get one piece of bread and spread the Jelly on it. Then get another Piece of bread and spread the Peanutbutter on. Then slap The Peanutbutter bread on the Jelly bread. Also shut the Bread sack and Put the Knife in the sink. Then get a Plate out and enjoy your meal.

Typical Score of 3

The writing exhibits a sense of unity and organization and makes use of transitional devices. The explanation of how to do a selected task is logical, but it tends to be either somewhat brief and lacking in detail or somewhat repetitious (e.g., nearly every sentence may begin with the same word). Sentence structure tends to be correct but lacks variety and complexity. The writing exhibits some errors in usage, spelling, and mechanics.

How to make a peanut butter sandwich

Open the cupboard. And get some jelly, peanut butter, bred, and two knifes. Open the jelly jar and peanutbutter jar. Untwist the wire that is used to keep it closed. And get two slices of bread out. Put one knife in the peanut butter. And scoop some on your knife. Take your knife and spread the peanutbutter on one slice of your bread. Now take your knife and take it off the sandwich and lay it down. Do the same thing with the jelly exsept put it on the other slice of bread. Now put them together their you have a peanutbutter and jelly sandwich. Don't forget to clean up the mess.

Typical Score of 4

The exercise addresses the topic in a direct, well-organized, and logical fashion. The explanation of how to do the selected task is thorough and detailed. There is frequent use of transitional words (e.g., first, then, now, when, next). The exercise tends to use a variety of sentence types (simple, compound, complex). Common features include introductory adverb clauses and compound verbs. Run-on sentences and sentence fragments are conspicuously absent, and usage errors are infrequent. Some errors in spelling, punctuation, and capitalization may be present.

This is how I would wash a dog. First, you need to gather the following things. A tub full of water, a box of soap, and a sponge. Next, you get the dog in the tub. Then, you need to sponge him all over with the water. After that, pour some of the soap on the dog. Next you need to scrub him firmly. Then you need to get a bucket of clean water over the dog to rinse off all the soap. After that rub him dry with a towel.

GRADE 7

Write about a subject (object, event, animal, or person) which has deep personal meaning for you and has been a special part of your life. You may want to describe the subject, tell how the subject came into your life, or explain how the subject has taken on meaning through time.

Typical Score of 1

The essay is generally brief and reflects little or no sense of organization. It may address the topic only indirectly. Ideas are poorly developed. There is little or no evidence of paragraph structure, and there are serious problems in sentence structure. The essay reflects a very limited and colloquial vocabulary. Errors in spelling, punctuation, and capitalization are excessive.

My subject is about a dog and his name is Smokey he came into my life when I was a little girl and he's still with me he came into my life by me just playing with And takes a meaning through my life by me just playing with and being with him. To describe him he's black and white.

Typical Score of 2

The essay is generally brief and may only partially or indirectly address the topic. The structure is often characterized by a rambling, unfocused quality. Paragraph structure may be absent or indistinct, and errors in sentence structure (e.g., run-ons, fragments) are common. The essay reflects a limited and colloquial vocabulary. Errors in spelling, usage, and mechanics are very noticeable.

I have a special animal I want to talk about. This animal comes in mostly every color, well except blue, purple, or orange. It is a common one alot of people have one, but they cann't live in the city they need to be on a farm.

It's a kind of a large animal. Some come very large some come small or average size.

Some people love to ride them but some people hate them completely.

You can ride them almost anywhere, except like in the water. If you haven't guest already it's a horse.

Typical Score of 3

The essay addresses the topic directly and shows some sense of units and organization. Development is aided by the use of supporting details, but some points may be unclear or insufficiently developed. Paragraphs are frequently indistinct and somewhat loose, but there are few errors in sentence structure, and there is variety in the types of sentences used. Some errors in usage, spelling, and/or mechanics are likely to be observed.

My object is my cat (NAME)

I was seven years old when I got her. She is gray and she is very nice. She also has dark blue eys. When you look at her you just can't help smiling.

My family and I were on a camping trip when we got her. She was three months old.

When I got into our truck she bit my finger. She didn't let go until tears came to my eyes.

She was the first cat I had ever had. Misty is very special to me!

We have other cats now to. Once last summer we were blessed with twenty three! Most of our cats either died or were given away. One of the girls in my class has one. Each year my sister and I get to pick out one kitten to have.

Well, I usually love to write more but my hand is getting very tired. Good-by

Typical Score of 4

The essay addresses the topic directly in a well-organized and thorough manner. Ideas are well developed and there is careful selection of supporting detail. The essay is organized into several clearly distinguishable paragraphs and demonstrates use of a variety of sentence types (simple, compound, complex, compound-complex). Errors in usage, spelling, and mechanics are minimal.

A Tenessee Walker is a beautiful horse. We own two and really enjoy them. They are registered and can be shown in a horse shows if our family wishes them to be.

Goboy's Sundance Kid is one of our horses. He is a gelding and stands about fifteen point four hands high. He is very gentle and a little shy. Sun is coal black with one white sock and a little star on his head.

Sun's Irish Melody is our mare. She is kind-of hyper and at times can be quite moody. She stands at about fifteen point two hands high. Melody is coal black and has two white socks on her hind legs.

Tenessee Walkers are known for their running walk. This gait is very smooth and is a little faster then a trot.

Our horses are pleasure horses and we rarely show them anymore. They are two super animals and friends!

GRADE 11

Write about a subject (object, event, animal, or person) which has deep personal meaning for you and has been a special part of your life. You may want to describe the subject, tell how the subject came into your life, or explain how the subject has taken on meaning through time.

Typical Score of 1

The essay is poorly organized, is often very short, and may barely address the topic. It is characterized by poorly developed paragraphs (or total lack of paragraph structure) and serious problems in sentence stucture and the development of ideas. Short, simple sentences, sentence fragments, and run-ons are typical. The essay reflects an extremely limited vocabulary. Errors in spelling, usage and mechanics are frequent.

When we was little, and we were at school. Then when school got out and we went home, and found a puppy there. We had fun with it. We play with it, and we pet it. My mom had told us how she had got him.

Later on, we move down to (NAME) When we moved down there we took him with us.

When mom had got married. About year later are stepfather had took the dog out to the woods and shot it. Because he was very old.

We did not know about it. Tell my brother had told me. Then I told my sisters and we all got mad at him, because he did not tell us, and he lied about it to.

Sometimes I would Remember him how he would protect use kids. When he went on walks with use and had fun.

Typical Score of 2

The essay addresses the topic in a marginal, indirect, or incomplete fashion. It demonstrates little sense of organization or development of ideas and reflects a limited and colloquial vocabulary. Sentence errors (e.g., fragments and run-ons) are common problems, and paragraph structure is often loose and indistinct. Errors in spelling, usage, and mechanics are evident.

One of my most personal things that I own is my drum set. It has changed my life because of the time I have put into making it up. I have been expanding it for about a year and a half.

What got me started was when my mom and dad went to buy a piano. They got the piano and also a very run down looking drum set that I took to very well.

The first thing I did to improve on my new set was to cover it with a new plastic covering on the outside of the drum shell. It took me a while to desid on a color, but eventualy picked jet black. My resons for this choice are clear, one reson was because unlike most other colors black reflects color lights very well and accents the look of crome making it look good on stage, and the other reson is most obvius, black was the cheapest color.

After getting this out of the way I figured I would have to work on a nother aspect of the set: the sound. The heads on this drumset looked like they had been around a while so I got up enough money and went shopping. I decided on Rero penstriped, oilfilled heads because they would give me a closed head sound with out having to put the money out for lower heads and rims.

I lived with this five peice set for a while (two toms, one snare, a floor tom and a bass drum) until I bot more.

Typical Score of 3

The essay addresses the topic, but organization is somewhat loose and occasionally rambling. Sentences tend to be lengthy and varied in type and the structure includes distinct paragraphs. Supporting details are used in the development of ideas, but vocabulary tends to be somewhat limited, frequently resorting to the use of jargon or cliches. The writing is relatively free of errors in usage, spelling, and mechanics.

Having an open and understanding relationship with my mom has helped me to understand some things a lot better. Being able to talk to her as more of a best friend than someone who issues authority is important. She doesn't always give me the answers I want to hear, but just having someone there when I really need them is a big help. I've found that since I never have and never will have a close relationship with my dad, my mom has at least

helped me to be able to get along with him a little better. If I couldn't talk to either of my parents, I think I would probably be lost on a lot of things. I can tell her anything & no matter what it is, she never gets mad at me or makes me feel like I'm a horrible person. My dad on the other hand doesn't understand a thing about me. He is too busy issuing authority to sit down & try to talk to me. I'm always afraid that if I ever had anything personal to tell him, or something I did wrong that he would condemn me to my room or something I can only tell him things that really have no meaning.

My mom & I started to really get close the summer before my 9th grade year. She always took the time to talk to me & when I was upset she would consule me. She has helped me to get over the guys that I thought I could never live without. She took the time to tell me what was wrong & what was right & the reasons behind them. She has always wanted what's best for me & helped to achieve things I really wanted. She doesn't spend her whole life taking care of me, but she does take a lot of time to listen & talk to me.

Typical Score of 4

The essay addresses the topic in a direct, well-organized, and thorough fashion. It reflects a command of standard written English and a rich, descriptive vocabulary. Carefully selected supporting details are used to develop ideas. A variety of sentence types (simple, compound, complex, compound-complex) are used in several well-developed paragraphs. Errors in spelling and mechanics are infrequent.

Sir Francis Dog, as he is called by his many friends, came into his masters life quite by chance. He was very young and was running wild in a rain storm. He looked like a mop on cleaning day. He heard a loud, thundering roar behind him and found that it was a large green car heading right towards him. He froze instantly, paralized by fright. The thought of wearing a halo, wings, and a four sleeved gown with a trapdoor in back probably flashed through his tiny brain.

To his surprise and relief the car stopped beside him, a door was opened, and two large hands pulled him inside. He found himself with two ladies and two young boys. He attached himself to the older of the boys since the younger of the boys looked mean and ugly to him.

Through the next few months the older boy, George, got to know and love this small friend that he had found. Sir loved his master deeply. The two would play many games together.

They played fetch they rassled and they fought over who got the plastic chew toys. They ate dinner together and made cookies when they were bored. They also watched a lot of T.V. together.

Both George and Sir got a little overweight one summer, so they both dieted together. George ate low cal. foods and Sir ate low cal. dog food. Every morning they would go jogging, or biking or sometimes skating. The two did everything together, and they still do.

Interpretation of Writing Results

The Writing Interpretive Panel concluded that writing performance has improved considerably in four years: fourth and seventh grade students made significant gains on the objective tests, and eleventh graders improved dramatically on the writing samples (they were not tested on multiple choice items). The only result running counter to this trend was the slight decline in scores on the fourth grade writing samples. In addition, it was not possible to determine whether seventh grade students' writing improved, due to the fact that the exercise topic was changed in 1982.

The general improvement was attributed to widespread changes in writing instruction, stimulated by a growing interest in writing skills, both statewide and at the national level. The panel felt that Oregon teachers had devoted a good deal of effort over the last four years to raise writing performance and that this work is beginning to show results. Panel members cautioned against relaxing these efforts now that scores are improving--the current level of interest and activity in writing improvement needs to be maintained.

The panel made the following observations about the results at specific grade levels:

Fourth Grade

- Of the three grades tested, panel members expressed the most concern over fourth graders' performance on the writing sample ("Write a paragraph which explains how to do one of the following: wash a dog, make a sandwich, build a campfire. Explain what you do from begininy to end."). Over two-thirds of the sample received holistic scores of "2" or below, compared to 58 percent in 1978.

- By way of contrast, the results on the objective items were better than four years ago. Approximately half of the 27 items registered statistically significant gains, and improvement was seen in every subcluster. In particular, students did much better on identifying complete sentences and sentence fragments, and identifying complete subjects and predicates in sentences.

  The item below is an example of identifying a complete sentence:

Choose the group of words that is a sentence.

	Percent Correct	
o *Apples ready to be picked.*		
o *To the lake with me.*		
o *Swimming every day this summer.*	1978	1982
• *The new boy is in our class.*		
	76%	82%

An item on identifying complete subjects and predicates reads as follows:

Choose the sentence in which the subject (noun part) and the predicate (verb part) are correctly divided by the slashed line (/).

	Percent Correct	
o *The girls are/playing hopscotch.*		
• *The girls/are playing hopscotch.*		
o *The/girls are playing hopscotch.*	1978	1982
o *The girls are playing/hopscotch.*		
	42%	59%

- The panel was not surprised to find improvement on the multiple choice items, even though none was shown on the writing sample. A partial explanation is that writing mechanics traditionally tend to receive more emphasis than actual composition in the first four elementary grades. Most of the recent effort to improve composition skills has been focused on the upper elementary and secondary levels.

Seventh Grade

- Panel members were impressed particularly with overall growth in performance on the objective test at the seventh grade level; significant gains were evident on 16 out of 37 items, with only four showing no change or a slightly negative change since 1978. The greatest improvement was found in the subcluster on identifying complete sentences, run-on sentences and sentence fragments (up 11 points), skills which members felt are highly related to students' actual ability to write.

A sample item from this subcluster is presented here:

Which of the following is a sentence fragment?

	Percent Correct	
• *Until they lost three straight games.*		
o *I promised to go to the movies with Elaine.*	1978	1982
o *The following day we all went on a picnic.*	53%	68%
o *Please pass out a copy to each student.*		

- Another subcluster showing much improvement was capitalization--the average score on the four items increased eight points (from 62 to 70 percent). In 1978, performance on the following item was judged below satisfactory; in 1982, 14 percent more students answered it correctly.

  In which of the following sentences is the title of the person correctly capitalized?

  - *The law class was addressed by*
  - *Governor Jones.*
  - *Report to lieutenant Engle, please.*
  - *The secretary of labor is Tim Major*
  - *When did queen Victoria die?*

	Percent Correct	
	1978	1982
	50%	64%

- As stated earlier, the panel was unable to determine changes in performance on the seventh grade writing sample due to the difference in topics. The 1982 exercise asked students to write about a subject having deep personal meaning, while in 1978, students wrote a "pen pal" letter as well as a business letter requesting a product. However, the panel members were gratified that only seven percent of the papers in 1982 received a rating of "1"; almost half of the papers were scored 2.5 or above.

Eleventh Grade

- Of all the 1982 writing results, the panel was pleased most with eleventh graders' performance on their two exercises. Four years ago, writing samples were rated "below satisfactory," with about two-thirds of the papers receiving scores of "2" or below on both topics. 1982 saw a strong shift upward, with only 35 percent rated "2" or below on the one exercise, and 42 percent on the other. Most change occurred at the extreme low end of the score range; in 1978, 37 percent scored "1.5" or below on the first topic, compared to nine percent in 1982; for the second topic, the figures were 38 percent and 14 percent, respectively.

Factors Affecting Results

As mentioned above, the interpretive panel noted that growing national and statewide interest in improving writing is an overall factor that accounted for gains shown in 1982. In Oregon, several developments have taken place over the past four years which are thought to have brought about the improvement in writing:

- The 1978 writing assessment itself galvanized the attention given to writing by Oregon educators. The results confirmed the suspicions of many that students had trouble writing coherent prose. Eleventh graders' performance especially was a cause for concern: these students were reaching the end of the K-12 school experience and for two-thirds, their writing was judged to lack organization and logic, and contained errors in sentence structure, spelling, punctuation and grammar. Partly due to the publicity attending these results, several districts launched writing improvement programs.

- Greater use of direct measures of writing was identified as a factor leading toward better scores. Holistic scoring of writing samples was adopted by many districts as a local assessment tool; the fact that student performance could thus be measured over time helped to focus teachers' efforts on writing instruction. In the absence of direct measures, attention had not been centered on student performance. As one panel member put it, "We couldn't talk about it before--we only knew that someone else might make more red marks on a paper than we could."

- The panel pointed out that in recent years, much inservice training has been targeted on writing instruction and writing assessment. The Oregon Writing Project (modeled after the Bay Area Writing Project) has provided training to hundreds of teachers over the past five years. In addition, professional organizations, such as the Oregon Council of Teachers of English and the International Reading Association, have emphasized writing instruction in conferences and workshops. Many inservice activities locally have addressed new techniques for teaching writing, and preservice efforts have begun to improve the ways in which teachers are prepared as writing instructors, especially at the secondary level. One panel member remarked that teachers now know much more about what is successful and what is not due to inservice/preservice activities in the area of writing.

- The panel noted that Oregon's goal-based curriculum planning system has had a positive effect on writing performance (a factor cited by the reading and computing panels as well). It has prompted teachers and curriculum specialists to state in very definite, measurable terms what it is exactly that they expect students to be able to do. As a result, districts are designing more cohesive writing programs.

- The lack of improvement in fourth graders' writing sample scores was seen as a reflection of the way in which writing skills often are taugnt in the early elementary grades. The panel felt that a "back to basics" trend, combined with highly structured language arts textbooks which tend to emphasize writing conventions and traditional grammar, are not likely to result in immediate improvements in actual writing performance. Also, inservice training has been directed more toward teachers of the upper elementary and secondary grades--there are simply fewer junior high and high school English teachers to train than elementary teachers. The panel felt that the key to improved writing performance in the early elementary grades is to have students produce more writing.

As one panel member summed up the discussion of factors affecting the results, "There has been a renaissance in the way teachers look at writing and the way writing is taught. Parents, students, teachers and administrators see writing as more important--and they work at it more." Another member concluded that, "When you do identify something and do address it, you can have results." The panel felt that Oregon students' writing performance is a case in point.

COMPUTING: RESULTS AND INTERPRETATION

The computing assessment tests by and large measured students' abilities to perform basic computational operations involving whole numbers, fractions, decimals and percents. Test items included both "straight computation" exercises, and traditional "story problems" which required students to select the appropriate mathematical procedure and calculate the answer.

In response to educators' expanding definition of basic mathematical skills,* several "problem-solving skill" items were added to the fourth and seventh grade tests in 1982. Problem-solving exercises differ from traditional textbook word problems in the following respects:

- Often, there is no immediately obvious way to determine a solution; that is, problems are not just computational exercises stated verbally.
- Often, more than one solution strategy may be utilized in arriving at an answer.
- Nontraditional skills may be used in analyzing a problem; these include systematic guessing and checking, looking for patterns, constructing diagrams and tables, distinguishing relevant from irrelevant data, and other approaches.
- A precise answer is not always called for; that is, the ability to arrive at an estimate or an approximate answer may be measured.

Table 3 shows the distribution of items among the major skill clusters at each grade level.

Table 3

Number of Items Used in Computing Skill Clusters at Grades 4, 7 and 11

Cluster	4	7	11
Operations with Whole Numbers	35	27	24
Operations with Fractions	--	9	5
Operations with Decimals	10	13	14
Operations with Percents	--	--	11
Problem-Solving Skills	12	10	4

*For information and materials regarding definitions of these skills, please contact the Department's mathematics specialist.

Two groups of items were deleted from the 1978 computing tests: operations with fractions at the fourth grade level, and percent calculations at grade seven. The content panel recommended the changes because students typically had not yet been exposed to these skills at the time the tests were administered; also, the deletions allowed for the inclusion of a greater number of problem-solving items for grades four and seven. Test content at the eleventh grade level remained the same, except for the inclusion of four new problem-solving items.

Computing Assessment Results

The overall results by cluster and the test as a whole are displayed in Figure 9 on the following page; subcluster scores are presented in Figures 10, 11 and 12 (pages 44 to 46). Comparisons with the 1978 scores are based on items common to both assessments. The 1978 results in the area of problem-solving skills are included twice: in the cluster under which they were grouped originally (e.g., operations with whole numbers) and in the new problem-solving cluster.

Interpretation of Results

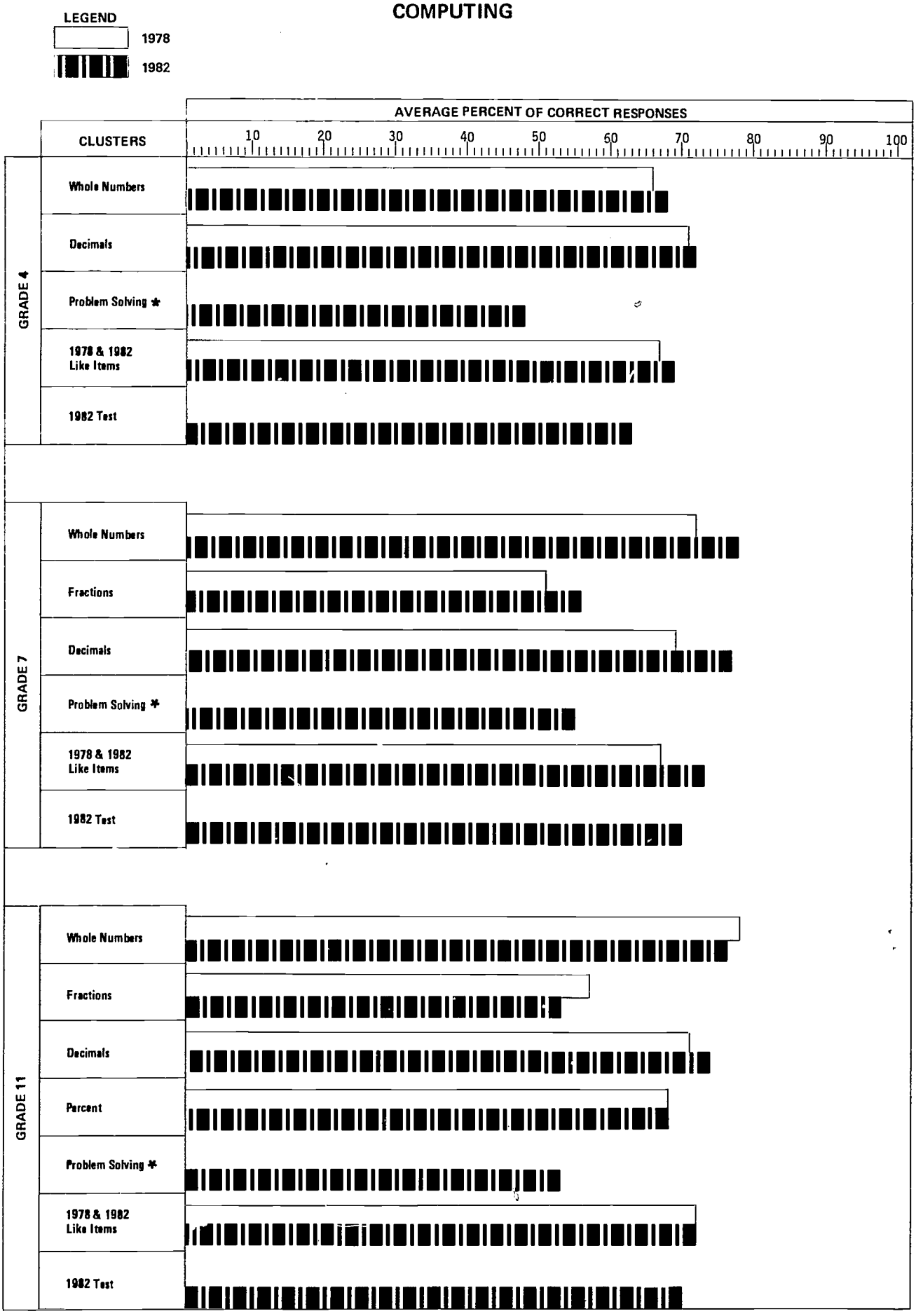
In general, the panel members were highly satisfied with student performance at each grade level on "straight computation" items, feeling that students demonstrated mastery of the basic operations of addition, subtraction, multiplication and division with whole numbers and decimals. However, there was concern expressed over students' ability to apply basic operations in word problems, and it was felt that much improvement is needed on those items designed to measure specific problem-solving skills. The following breakdown illustrates relative performance levels on these three exercise categories.

Average Percentage of Correct Responses
By Type of Item

Grade/Year	Straight Computation	Word Problems	Problem-Solving Skills
Grade 4			
1982	75%	64%	48%
1978	70	65	--*
Grade 7			
1982	79	67	55
1978	73	61	--
Grade 11			
1982	77	69	53
1978	77	69	--

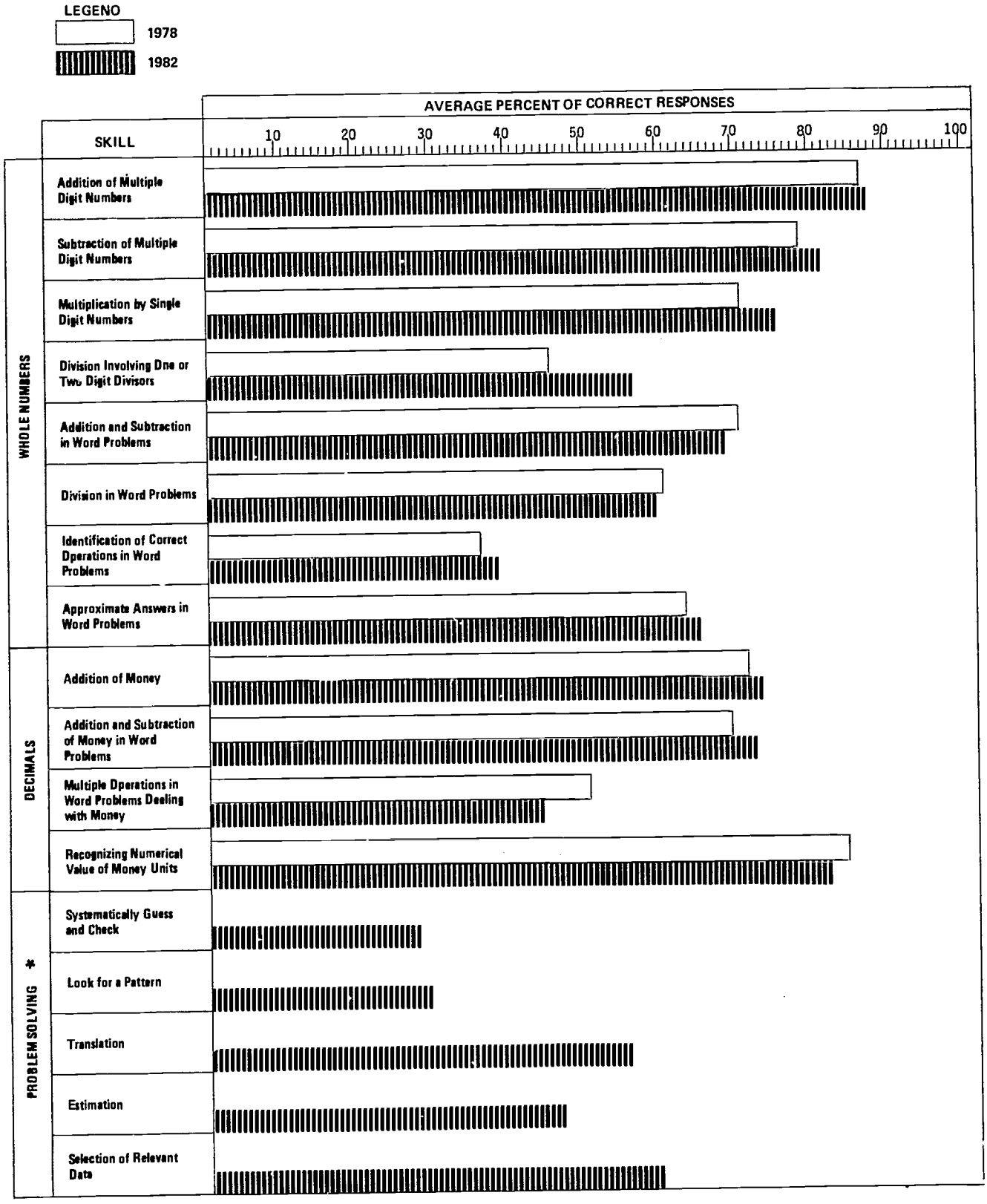
* Problem-solving skills not tested in 1978.

FIGURE 9: COMPARISON OF STUDENT PERFORMANCE ON TOTAL TEST AND MAJOR SKILL CLUSTERS 1978 AND 1982 COMPUTING



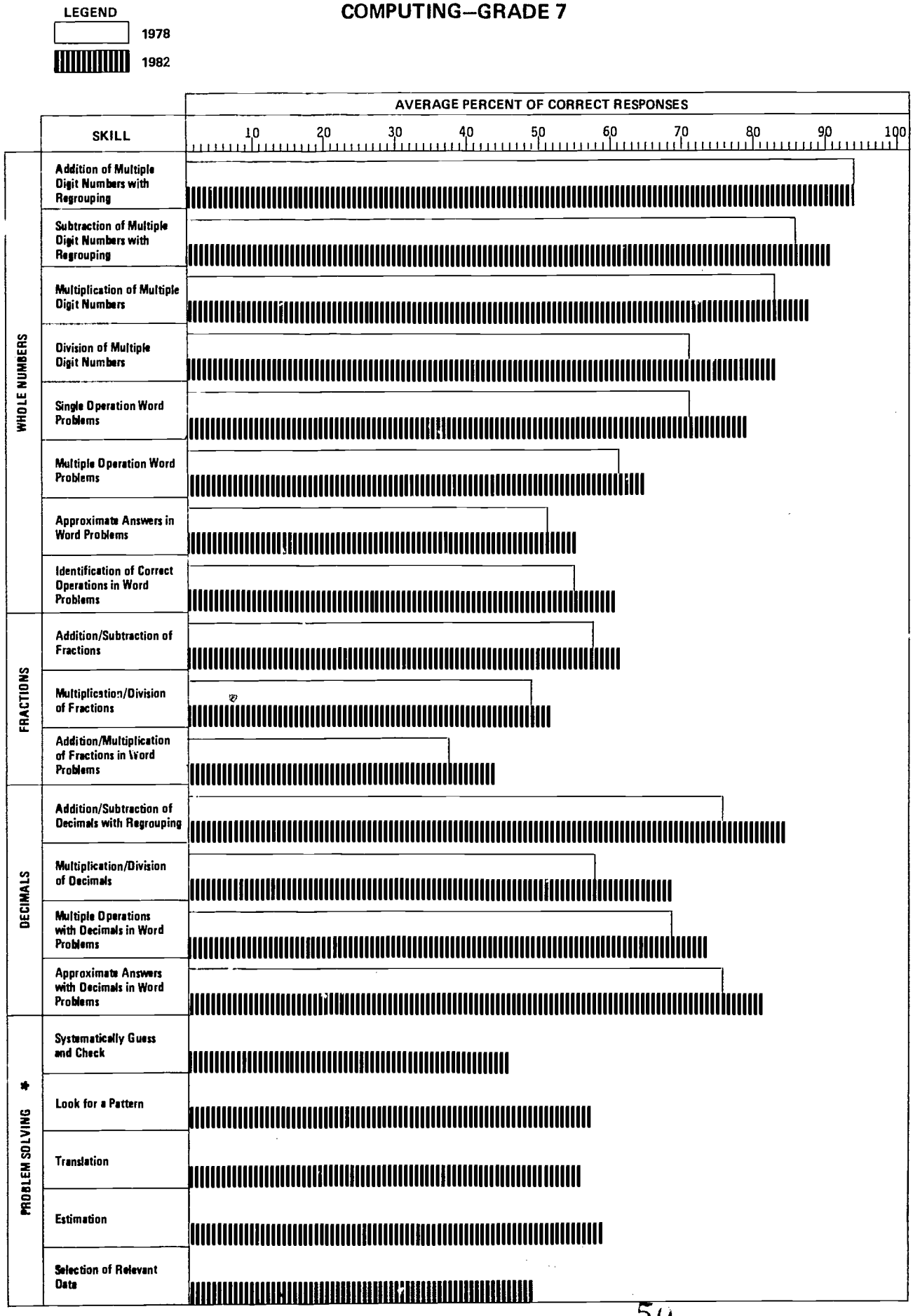
* Not tested in 1978

FIGURE 10: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 COMPUTING—GRADE 4



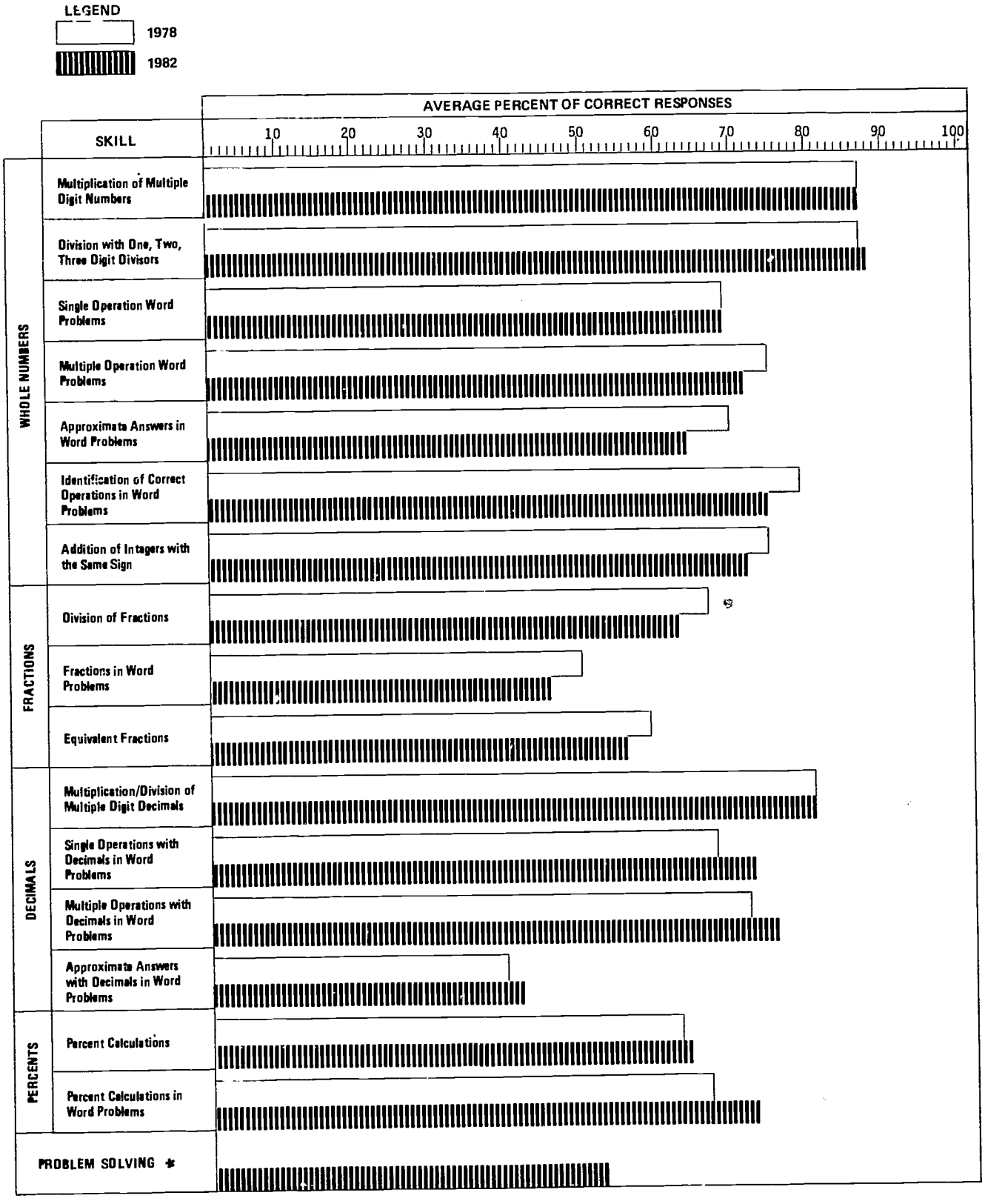
* Not tested in 1978

FIGURE 11: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 COMPUTING—GRADE 7



* Not tested in 1978

FIGURE 12: COMPARISON OF STUDENT PERFORMANCE IN SPECIFIC SKILL SUBCLUSTERS 1978 AND 1982 COMPUTING--GRADE 11



* Not tested in 1978

The major implication of these results, panel members agreed, is that any additional emphasis on purely computational operations is unnecessary (with certain exceptions discussed below). Further efforts to improve scores in this area might detract from work that needs to be done in developing students' abilities to understand "real-life" problems and formulate appropriate solution procedures. In an age when computers and calculators are finding widespread use, the ability to analyze a problem and translate it into mathematical language is essential.

The panel made the following observations about specific grade level results:

Fourth Grade

- Performance in addition and subtraction of whole numbers and decimals (straight computation) was high in 1978, and again in 1982. This skill level was not expected to increase.

- Significant gains were made on nine out of ten items involving multiplication and division of whole numbers (straight computation), with an average gain of seven points. The panel regarded these scores as evidence that "kids know their times tables" and additional emphasis in this area was not recommended.

  Two samples of items on which fourth graders achieved gains follow:

	Percent Correct	
	1978	1982
$\begin{array}{r} 75 \\ \times 6 \\ \hline \end{array}$	71%	77%
$5\overline{)36}$	62%	70%

- Significant gains or losses were shown on only five out of twenty-one word problem items involving either whole numbers or decimals; performance was therefore relatively stable over the four-year period. The panel felt that this area warrants more attention, especially in working with approximate answers (estimation) and identifying correct operations in word problems (translation).

  Examples of these latter items include:

  If Maria can read 20 pages an hour, about how many hours will it take her to read a 178-page book?

  o *12*
  o *11*
  o *10*
  ● *9*
  o *I don't know.*

Percent Correct	
1978	1982
38%	39%

Jim has 23 rocks. Ann has 32 rocks. Which one shows how many more rocks Ann has than Jim?

	Percent Correct	
● *32 - 23*		
o *23 - 32*		
o *23 + 32*	1978	1982
o *23 x 32*		
o *I don't know.*	59%	56%

- The panel regarded performance on problem-solving skill items new to the test as below satisfactory; again, members recommended that more effort be directed toward this area.

A sample item in the problem-solving cluster, requiring students to look for a pattern, follows:

Which two numbers continue the pattern?

4, 5, 7, 10, 14, ?, ?

	Percent Correct
o *18, 23*	
● *19, 25*	1982
o *18, 22*	
o *19, 24*	29%
o *I don't know.*	

(Item not used in 1978.)

Seventh Grade

- In all three skill clusters common to the 1978 and 1982 tests (operations with whole numbers, fractions, and decimals), students showed large gains. Particularly pleasing was growth in the decimals cluster (up eight points); members noted that operations with decimals traditionally are difficult to teach, and that this area of computation is especially important given the increased use of calculators, computers and metric units.

The items showing the greatest gains on the test as a whole were:

	Percent Correct	
	1978	1982
$7\overline{)2.8}$	38%	56%
$\begin{array}{r} 2.3 \\ -.47 \end{array}$	59%	78%

- Even though scores on the fractions cluster were quite a bit lower than those involving whole numbers and decimals, the panel was not disappointed --computation with fractions is a more difficult and isolated skill. Compared to 1978, significant gains were achieved on six of nine items dealing with fractions. For example:

	Percent Correct	
	1978	1982
$\frac{3}{4} + \frac{3}{8} =$	44%	52%
$\frac{2}{3} \times \frac{3}{8} =$	48%	54%

- Compared with straight computation and traditional word problems, items measuring problem-solving skills were considerably lower. The panel recommended that teachers place greater emphasis on the application of computational skills, as well as on the skills of translation and estimation.

A typical two-step word problem follows:

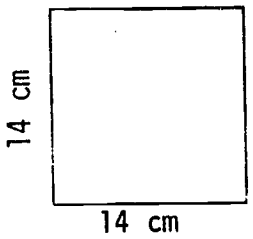
> *Hank wants to buy a new bicycle tire which costs $2.29, and a new baseball glove for $8.88. He has saved $5.50. How much more money does he need?*

	Percent Correct	
o *$5.67*		
o *$6.67*		
o *$11.17*	1978	1982
o *$16.67*		
o *I don't know.*	68%	73%

Eleventh Grade

The panel had the same recommendations as for fourth and seventh grade students: ability to solve problems utilizing computational skill with whole numbers generally is good and needs no additional emphasis; improvement is needed, however, with problems which require that students select correct operations in order to reach solutions.

- The eleventh graders' performance was judged particularly unsatisfactory on geometry problems, percent calculations and problems involving consumer math. For example:



Each side of a square is 14 centimeters long. What is the area of the square?

- o *28 cm^2*
- o *49 cm^2*
- o *56 cm^2*
- ● *196 cm^2*
- o *I don't know.*

Percent Correct	
1978	1982
57%	51%

25% of $75 =

- o *$3.00*
- o *$14.25*
- o *$18.55*
- ● *$18.75*
- o *I don't know.*

Percent Correct	
1978	1982
65%	65%

Manuel can buy a set of tires for his car for $127.00 cash. He can also get them on time payments for $11.00 down and $12.00 per month for a year. How much can he save by paying cash?

- o *Nothing, the price is the same*
- o *$17.00*
- ● *$28.00*
- o *$38.00*
- o *I don't know.*

Percent Correct	
1978	1982
64%	67%

- Across the eleventh grade test as a whole, performance in 1982 was the same as that in 1978. The panel felt that this was due, in general, to little change having taken place in math instruction at the secondary level since 1978, and recent improvements in elementary math instruction have not had time to filter up to the secondary level.

Factors Affecting Results

While it is difficult to establish cause and effect relationships in interpreting assessment results, the computing panel did reach consensus on several explanatory themes. With respect to changes between 1978 and 1982, the following factors came into play.

- The moderate growth at the fourth grade level and the large gains for grade seven are likely to be accounted for by a substantial increase in inservice activities for elementary and middle school teachers. Math teachers at the ninth grade and above, however, have not been as active

in professional development activities, which may in may part explain the lack of growth in the eleventh grade results.

Inservice training focusing on increasing conceptual development in math seems to have paid off. For example, the greater use of "manipulatives" to teach place value has resulted in better computational skills, especially with operations involving decimals. In many cases, Title I math projects stimulated the use of "hands on" activities, which then were adapted to the regular classroom.

Panel members also agreed that the quality of preservice math education has improved in recent years, especially in the area of relating specific teaching strategies more closely to specific mathematical concepts and skills.

- The "back to basics" movement of recent years, with its greater emphasis on arithmetic skills is felt to be partially responsible for the gains in straight computation at the fourth grade level, and growth across all clusters at the seventh.

- Nearly all panel members point to Oregon's goal-based planning system as an improvement factor, with more communication among teachers when planning curriculum. The process of establishing program goals at the various grade levels apparently has made teachers and curriculum specialists aware of other areas of mathematics besides computing, broadening their thinking about math content generally. Also, it was felt that goals for each grade level did in fact direct teachers' instructional efforts, especially if the district's testing program was keyed to these goals.

In summary, the computing interpretive panel felt strongly that improvements in professional development opportunities for teachers helped to explain changes in assessment results, and that math teachers at the secondary level need to participate in such training if the eleventh grade scores are to improve in the future.

In general, the field of mathematics presently is undergoing a period of change, with a broadening definition of basic skills in mathematics as a central theme. The panel expects that continued emphasis on problem-solving will result in greater ability on the part of students to use mathematical skills in "real world" settings.

CONCLUSIONS

While the three interpretive panels each worked independently, a number of common themes emerged in the discussions of factors which affected assessment results. The following is a synthesis of those themes across content areas.

Factors Affecting Overall Assessment Results

The 1982 assessment measured student achievement in what are commonly referred to as the "basic skills," and as such, the generally positive findings reflect a national effort to increase student performance in fundamental areas of communication and computation, especially in the elementary grades. At all levels of the school system, the priority given to the basic skills has been relatively intense since the mid-1970s. Each of the panels noted that when attention is focused on a given curriculum area and a strong effort is made to improve student achievement, positive results follow. Most of the credit for the improved assessment results is due to the teachers in the state.

However, as several panel members pointed out, the "back to basics" movement is not without its drawbacks. Overstressing the basic skills may result in a narrowing of the curriculum, even within the framework of the "three Rs." For example, in such areas as inferential comprehension and mathematical problem-solving skills, the panels were somewhat disappointed with student performance. Thus, while the overall beneficial effect of the curriculum shift toward basic skills was noted, each panel cautioned against excluding "higher order" skills.

A second explanatory theme is Oregon's goal-based planning system established in 1972, which requires districts to organize curriculum and instruction around desired student outcomes. The result in most cases is better-coordinated, more cohesive curriculum that focuses teachers' efforts on specific areas. Also, due to the fact that goal-based planning requires a collaborative effort on the part of teachers, curriculum specialists and administrators, communication in the area of curriculum and instruction has increased.

A third theme noted by the panels is the attention placed on continuing professional development. In each of the three content areas assessed, many in-service training opportunities had been made available to teachers. Panel members felt that the increased participation in professional development activities is reflected in the test results. Also cited was the improved quality of preservice training. In light of reduced inservice opportunities resulting from district budget cuts, panel members felt that if the results realized in 1982 are to be maintained, schools will need to continue providing teachers with avenues for professional growth.

Appendix A

Assessment Design and Administration

Since its conception in 1973, a major purpose of the statewide assessment program has been to establish a data base on student performance in the basic skills of reading, writing and computing. This data base would be used to determine the statewide status of student performance through periodic administration of the tests.

The 1982 assessment provided the first opportunity for extensive comparisons with previous assessments since reading, writing and computing tests had been given at grades 4, 7 and 11 in 1978.

It was therefore important to keep the tests as intact as possible, yet recognize the need to strengthen the tests by replacing items that did not perform well in the 1978 assessment. It was also necessary to review the curriculum validity of the test items and to consider replacement of a sizeable number of eleventh grade reading items which had been proven to lack an appropriate level of difficulty.

The Department of Education contracted with a specialist to identify 1978 items which had measurement inconsistences. The contractor also supplied a pool of field tested items from which replacement items could be drawn.

An evaluation study of the 1978 assessment included several recommendations for test improvement. The study noted that few schools in Oregon included fractions in the fourth grade curriculum or percentages at grade seven. These sections were replaced with problem-solving skill items. The study also recommended a replacement of the seventh grade writing sample topics and the addition of an objective writing test at grade eleven. The seventh grade writing exercise was changed, but the Department was unable to find a source of adequate field-tested grade eleven objective test items in writing. Those advising the Department in this area recommended that the Department field test the use of the College Board Test of Standard Written English. Arrangements were almost completed for this field test when state budget reductions made it impossible to continue.

The more difficult items for the eleventh grade reading test came from items developed and field tested by the Los Angeles County Test Development Center. The Intran Corporation is licensed to distribute these items and supplied the Department with an item pool from which replacement items were chosen.

About 75 items were modified slightly to produce a more consistent format to bring some figures (such as prices) up to date, and to correct problems with wording.

The review and revision of the tests were managed by the Department basic skills specialists. They were assisted by school district and university content and testing specialists who carefully reviewed the tests, selected replacement items and recommended item modifications.

National Evaluation Systems, Inc. of Amherst, Massachusetts, was the successful bidder for the contract to produce, distribute and score the tests. They also provided school and state level reports of the results. In addition, NES was awarded the contract to conduct the holistic scoring of the writing sample; these services were provided also to 94 buy-in school districts which tested an additional 10,800 students.

The Department contractor providing the test item replacement pool also drew the random sample of schools. Schools were clustered into three geographic regions (metropolitan, east and west) according to school size and organizational structure. Four hundred and five schools were randomly selected from these strata. This stratification of schools improved the precision of population estimates and insured a representative spread of the sample across the range of values of the stratifiction variables. The same sample design was used in 1978.

Schools were notified of their inclusion in the sample and replacement schools were selected for those which were not able to participate. The tests were printed and ready for distribution by January 25, 1982.

As in 1978, education service district and county school district personnel agreed to assume a major assessment function. They were responsible for distributing the assessment instruction manual and tests to schools in their districts, the training of school district test administrators, the editing of answer and group information sheets, and the return of these materials to NES for processing.

Testing was conducted during the week of March 1, 1982. The testing, scoring and reporting were completed on schedule.

1982 OREGON STATEWIDE ASSESSMENT

READING

GRADE 4

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 2,467

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WORD ATTACK						VOCABULARY					COMPREHENSION							APPLICATION				
SUBCLUSTER (SPECIFIC SKILL)	RHYMING WORDS	VOWELS	SYLLABICATION	PREFIXES, SUFFIXES	COMPOUND WORDS	CONTRACTIONS	SYNONYMS	ANTONYMS	WORD MEANING IN ISOLATION	MULTIPLE-MEANING WORDS	MEANING RELATIONSHIPS	IDENTIFYING INFORMATION AS STATED	IDENTIFYING WHO, WHERE, WHAT, WHEN INFORMATION	MAIN IDEAS	STORY TITLES	SEQUENCING	PREDICTING OUTCOMES	INFERENCE	DETERMINING CHARACTER MOTIVES	SOURCES OF INFORMATION	DICTIONARY SKILLS	TABLE OF CONTENTS	FOLLOWING DIRECTIONS (MAPS)	GENERAL LIFE-SKILL INFORMATION
ITEM NO.	1 2 32 33	5	4 18 37	28 29 30 31	3 34	19 20 40 41 42	35 36	55 56 57	16	15 17	52	46 47 58	48 49 50 51	9 10 13 21 38	14 39	22 60	27 59	23	26	43 44 54	24 25 53	6 7 8	11	12 45
CORRECT ANSWER	BHGA	A	FFD	HAFD	BH	CGGDG	AH	CGD	F	CC	H	JCG	JCJD	CFCBG	FB	JH	BC	B	J	BFF	JCA	JBH	A	FD
PERCENTAGE	* 8888	* 8	*** 977	*** 6675	** 88	* ** 89895	* * 96	* 997	* 9	* * 95	9	* 779	*** 8899	***** 78887	** 88	** 87	* 89	9	* 8	** 899	* 774	* 998	* 8	** 99
CORRECT	6678	3	486	4610	69	96870	75	555	5	07	0	732	2523	83139	49	49	43	1	2	562	870	107	4	72

AVERAGE PERCENTAGE CORRECT: 82.86

STANDARD DEVIATION: 14.87

STANDARD ERROR OR THE MEAN: .30

*statistically significant change

1982 OREGON STATEWIDE ASSESSMENT

READING

GRADE 7

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 3,868

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WORD ATTACK		VOCABULARY		COMPREHENSION										APPLICATION				
SUBCLUSTER (SPECIFIC SKILL)	SYLLABICATION	ROOTS	WORD MEANING IN ISOLATION	WORD MEANING IN SENTENCES	IDENTIFYING INFORMATION AS STATED	MAIN IDEAS	STORY TITLE	SEQUENCING	REFERENTS	CAUSE AND EFFECT	INFERENCE	DRAWING CONCLUSIONS	MOODS	FIGURATIVE SPEECH	DICTIONARY SKILL	SOURCES OF INFORMATION	TELEPHONE DIRECTORY	FOLLOWING DIRECTIONS	INDEX
ITEM NO.	1 2 27	3 4 30	5 6 7 8 28 29	16 31 32 33 42 43 44	24 40 45	10 11 12 17 18 19 23 35 36 50 55 57	39	9 20 21	25 58	59	26 38	41	51	52	45 54	14 46 47 48 49	34 53	13 22 37	15
CORRECT ANSWER	CFB	DGG	CFBHGA	GDGCFCG	JGJ	HBHBJCDBHJDB	F	DHB	CF	D	JA	C	B	G	AH	HFCJD	HC	AJC	C
PERCENTAGE CORRECT	* 977 575	* 688 980	* * 799976 983472	** ** 4949969 5342312	* 868 447	****** * * 999899898886 525330329514	7 7	** 978 404	* 87 14	* 4 5	* 67 36	7 5	8 8	7 3	* 66 37	* * 97489 12641	* 79 83	*** 998 748	6 1

AVERAGE PERCENTAGE CORRECT: 79.76

STANDARD DEVIATION: 14.78

STANDARD ERROR OF THE MEAN: .24

1982 OREGON STATEWIDE ASSESSMENT

READING

GRADE 11

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 2,782

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	VOCABULARY			COMPREHENSION			APPLICATION			
SUBCLUSTER (SPECIFIC SKILL)	WORD MEANING IN ISOLATION	WORD MEANING IN SENTENCE	WORD MEANING IN PROSE	LITERAL	INFERENTIAL	EVALUATIVE	FOLLOWING DIRECTIONS	STUDY SKILLS	INTERPRETING DATA DISPLAYS	LOCATING AND USING INFORMATION
ITEM NO.	1 2 3 4 5 6 7 8	30 31 32	12 13 14 20	26 34 40 41 51 52 53 56	17 18 19 25 33 39	21 22 35 36 37 38 39 54 55 57 58	15 16	11 60	24 42 43 44 45 46 47 48 49 50	9 10 23 27 28 29
CORRECT ANSWER	DHCJDFCH	GBG	FBF	HFGBBHAH	AHCBCD	AHAGCHDGBBH	BG	BF	JGCFCJCFBG	BJDAHA
PERCENTAGE CORRECT	78678376 14997904	669 092 *	9599 5974	56777576 51384404 * **	457785 938941 *	74687786566 93930935776 ** *	88 58	76 52 *	8897878847 8758353144 * ** *	787876 050387

AVERAGE PERCENTAGE CORRECT: 72.64

STANDARD DEVIATION: 17.66

STANDARD ERROR OF THE MEAN: .33

*statistically significant change

1982 OREGON STATEWIDE ASSESSMENT

WRITING

GRADE 4

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 2,630

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WRITING CONVENTIONS					GRAMMAR					ORGANIZATION	
SUBCLUSTER (SPECIFIC SKILL)	Punctuation	Abbreviations	Capitalization (First Word in Sentence, Proper Noun, Pronoun I, Day of Week or Month.)	Spelling of 1, 2, 3 - Syllable Words	Spelling of Plural Words	Identifying Complete Sentences	Identifying a Sentence Fragment	Identifying Complete Subjects/ Complete Predicates in Sentences	Recognizing Proper Verb Form in Sentences	Recognizing Subject-Verb Agreement in Sentences	Sequencing Sentences of a Story	Addressing an Envelope
ITEM NO.	1 2 3	4 5	6 7 8 9	18 19 20	24	10 11	17	21 22 23	12 13 15	14 16	25	26 27 28
CORRECT ANSWER	BGC	JB	FDJC	FDG	H	JB	B	CGA	HDB	FH	C	HCF
PERCENTAGE CORRECT	898	77	9887	788	6	89	8	656	997	54	6	657
	126	09	2534	702	5	21	1	894	365	66	8	168
	**	*	* *		*	**		***	**		*	

AVERAGE PERCENTAGE CORRECT: 75.62

STANDARD DEVIATION: 17.47

STANDARD ERROR OF THE MEAN: .34

*statistically significant change

WRITING EXERCISE	
ESSAY TOPIC:	"HOW TO" EXERCISE
POSSIBLE SCORES	
OMIT	2.6
1.0	18.2
1.5	11.9
2.0	35.9
2.5	13.5
3.0	12.7
3.5	3.0
4.0	2.3

AVERAGE SCORE: 2.04

STANDARD DEVIATION: .74

STANDARD ERROR OF THE MEAN: .01

1982 OREGON STATEWIDE ASSESSMENT

WRITING

GRADE 7

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 3,631

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WRITING CONVENTIONS										GRAMMAR					ORGANIZATION		
SUBCLUSTER (SPECIFIC SKILL)	Identifying missing punctuation in sentences	Identifying correctly punctuated sentences	Using apostrophe in contractions	Capitalizing titles	Capitalizing proper nouns and adjectives	Spelling of plural words	Identifying correct spelling of plural or pluralpossessive in a sentence	Identifying correct spelling of a homonym in a sentence	Distinguishing contractions from interrogative pronouns	Distinguishing between contractions and personal (possessive case) pronouns	Identifying sentence fragments	Identifying a run-on sentence	Identifying a complete sentence	Recognizing subject-verb agreement in sentences	Recognizing proper verb form in a sentence	Recognizing sentences related to topic sentence	Sequencing sentences in a paragraph	Sequencing sentences in a story
ITEM NO.	1 2 3 4 5	8 9 10	20 21	7 25 26	35	11 12 13 14	16 17	15 18	19	22 23 24	32 33	34	6	27 30 31	28 29	36	37	38
CORRECT ANSWER	AHBJA	GDF	HD	ABF	C	DJBH	HC	BF	B	JDG	HA	H	J	DHA	GC	H	B	H
PERCENTAGE CORRECT	57478	797	58	677	7	6695	76	84	5	453	66	3	8	555	68	7	7	5
	54329	617	74	410	3	4212	49	78	4	937	38	8	6	722	84	1	1	4
	***	**		***		*		*	*		**	*	*	*		*		

AVERAGE PERCENTAGE CORRECT: 65.81

STANDARD DEVIATION: 18.74

STANDARD ERROR OF THE MEAN: .31

*statistically significant change

WRITING EXERCISE

ESSAY TOPIC:

"Write about a subject which has deep personal meaning."

POSSIBLE SCORES

OMIT	1.7
1.0	6.8
1.5	6.9
2.0	35.5
2.5	20.0
3.0	22.5
3.5	4.5
4.0	2.0

AVERAGE SCORE: 2.34

STANDARD DEVIATION: .66

STANDARD ERROR OF THE MEAN: .01

1982 OREGON STATEWIDE ASSESSMENT

WRITING

GRADE 11

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 3,050

DISTRICT:

SCHOOL:

IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

WRITING EXERCISE #1

ESSAY TOPIC:

"Write about a subject which has deep personal meaning."

POSSIBLE SCORES

OMIT	2.0
1.0	2.3
1.5	4.4
2.0	26.6
2.5	20.6
3.0	28.2
3.5	10.5
4.0	5.4

AVERAGE SCORE: 2.62

STANDARD DEVIATION: .67

STANDARD ERROR OF THE MEAN: .01

WRITING EXERCISE #2

ESSAY TOPIC:

"Write a Persuasive Essay."

POSSIBLE SCORES

OMIT	3.1
1.0	5.4
1.5	5.9
2.0	28.1
2.5	17.9
3.0	27.4
3.5	7.9
4.0	4.3

AVERAGE SCORE: 2.50

STANDARD DEVIATION: .72

STANDARD ERROR OF THE MEAN: .01

1982 OREGON STATEWIDE ASSESSMENT

COMPUTING

GRADE 4

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 2,306

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WHOLE NUMBERS													DECIMALS						PROBLEM SOLVING				
SUBCLUSTER (SPECIFIC SKILL)	Addition of Multiple Places Without Regrouping	Addition of Multiple Places With Regrouping	Subtraction of Multiple Places Without Regrouping	Subtraction of Multiple Places With Regrouping	Multiplication of One-(Two, Three-) Digit Numbers by One-Digit Numbers	Multiplication With Zero	Division Involving Single-Digit Divisors Without Remainder	Division Involving One-, Two-Digit Divisors With Remainder	Addition in Word Problems	Subtraction in Word Problems	Division (Successive Subtraction) in Word Problems	Approximate Answers in Word Problems	Identification of Correct Operation in Word Problems	Addition of Multiple Places	Addition in Word Problems	Subtraction in Word Problems	Multiplication in Word Problems	Division in Word Problems	Multiple Operations in Word Problems	Money Units	Guess and Check	Look for a Pattern	Translation	Estimating	Relevant Data
ITEM NO.	1 3	2 4	6	8 9 10	11 12 15 16	13 14	17 21	18 19 20	25 28 57	40 42	28 39 48 50	38 44	24 31 33 41	5	27 32 35	37	43	46	47	30 36	55	54 56 58	51	26 34 45 49	22 23 52 53
CORRECT ANSWER	DC	FG	GB	HCF	DJCG	AH	CD	FCF	BCD	GG	HAJF	HJ	HAAB	C	BGD	C	B	G	D	FH	D	GGF	B	GGBB	HAGD
PERCENTAGE CORRECT	99 13 *	89 00	99 25	787 129 *	9777 7703 ***	94 55 **	53 14 **	755 043 ***	483 546	86 53	8554 1956 *	33 89	4576 6679 **	7 4	868 083 *	8 0	5 3	4 4	4 5 *	88 24 *	2 2	2 3 9 1	3 3	5337 9650	9643 4842

AVERAGE PERCENTAGE CORRECT: 63.41

STANDARD DEVIATION: 17.66

STANDARD ERROR OF THE MEAN: .37

*statistically significant change

Item 56 not scored because of measurement inconsistencies.

1982 OREGON STATEWIDE ASSESSMENT

COMPUTING

GRADE 7

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 3,710

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WORD NUMBERS/INTEGERS														FRACTIONS							DECIMALS						PROBLEM SOLVING				
SUBCLUSTER (SPECIFIC SKILL)	Addition of Multiple Digits/Horizontal Format With Regrouping	Addition of Multiple Digits/Vertical Format With Regrouping	Subtraction: Multiple Digits With Regrouping(Non-Zero)	Subtraction of Multiple Digits With Regrouping (Zero)	Multiplication of Multiple-Digit Numbers	Multiplication Involving Zero	Division With Multiple-Digit Numbers	Division Involving Zero	Subtraction/Word Problems With Units	Multiplication in Word Problems	Division in Word Problems With Units	Multiple Operations in Word Problems	Approximate Answers in Word Problems	Identifying Correct Operations in Word Problems	Addition, Subtraction of Fractions With Like Denominators	Addition, Subtraction of Fractions With Unlike Denominators	Subtraction Involving Whole Numbers and Mixed Numerals	Multiplication of Fractions With Changing	Division of Fractions With Changing	Addition in Word Problems	Multiplication in Word Problems	Addition of Multiple Places With Regrouping	Subtraction of Multiple Places With Regrouping	Multiplication of Decimals	Division of Decimals	Multiple Operations in Word Problems	Approximate Answers in Word Problems	Guess and Check	Look for a Pattern	Translation	Estimating	Relevant Data
ITEM NO.	2 4	1 3	9	10 11	17	18 19	23	24 27	29	43 47	30	34 35 36 45	31 46	28 41 44 50	7 12	8 15	16	22	25	48	51	5 6	13 14	20 21	26	32 33 37 39 40	38	54 60	53 55 59	42 57	56 58	49 52
CORRECT ANSWER	HG	DD	C	J D	A	GC	B	GC	A	CC	H	HCGD	CG	GCFJ	AH	GB	G	J	C	J	D	CG	CG	GA	J	FACAH	G	JJ	BAB	FB	GG	DG
PERCENTAGE CORRECT	99 35	99 35	9 5	99 00 **	8 5 *	99 10 *	8 6 *	78 85 **	6 6	88 40 **	8 4 *	4874 8777 *	56 01	5864 2282 **	78 79	55 22 **	3 9 *	5 4 *	5 0	4 7 *	4 1 *	98 04 *	78 88 **	96 02 **	5 6 *	76778 39380 ***	8 2 *	35 92	56 50	55 39	65 05	54 80

AVERAGE PERCENTAGE CORRECT: 69.93

STANDARD DEVIATION: 17.49

STANDARD ERROR OF THE MEAN: .29

*statistically significant change

Item 59 not scored because of measurement inconsistencies.

1982 OREGON STATEWIDE ASSESSMENT

COMPUTING

GRADE 11

STATEWIDE SUMMARY REPORT

NUMBER OF STUDENTS TESTED: 2,912

DISTRICT: SCHOOL: IDENTIFICATION CODE:

TEST DATE: MARCH, 1982

CLUSTER	WHOLE NUMBERS/INTEGERS												FRACTIONS				DECIMALS								PERCENTS					PROBLEM SOLVING
SUBCLUSTER (SPECIFIC SKILL)	Multiplication of Multiple-Digit Numbers	Multiplication Involving Zero	Divison With Two-Digit Divisors	Division With One, Two, Three-Digit Divisors Involving Zero	Addition in Word Problems	Multiplication in Word Problems	Division in Word Problems	Multiple Operations in Word Problems	Multiple Operations in Word Problems (Averages)	Approximate Answers in Word Problems	Identify Correct Operations in Word Problems	Addition of Integers With Same Sign	Division of Fractions With Changing	Division in Word Problems	Multiple Operations in Word Problems	Equivalent Fractions	Multiplication of Multiple-Digit Decimals	Multiplication Involving Zero	Division of Multiple-Digit Decimals	Addition in Word Problems	Subtraction in Word Problems	Multiplication or Division in Word Problems	Multiple Operations in Word Problems	Approximate Answers in Word Problems	Percent One Number is of Another	Percent One Number is of Another in Word Problems	Percent of a Number	Percent of a Number in Word Problems	Multiple Operations in Word Problems	Problem-Solving Skills
ITEM NO.	1	2 3	8 12	7 9 13	23 24	25 37	22 33	28 38 40 49 52	31 46	34	26	14	10	55	32	29 39	5	4 6	11	41	21	36 44	27 35 42 43 51	48	15 16	30	17 18 19 20	45 47 53	50	54 56 57 58
CORRECT ANSWER	C	J D	H F	B C A	C H	D D	H B	G H F A H	B H	H	G	F	H	D	F	B B	B	H G	D	C	B	J G	B D F B C	H	B J	G	D J C G	D C C	G	G G B F
PERCENTAGE CORRECT	81	99 01	98 48	897 718	* 97 52	* 95 32	72 78	* ** 95657 09850	88 14	* 6 4	7 5	7 2	6 3	4 4	* 4 7	* 82 38	7 8	89 31	7 0	5 7	* 9 0	* 59 03	** 86876 69377	4 2	* 83 89	9 1	* 7665 8522	966 219	5 3	6353 8555

AVERAGE PERCENTAGE CORRECT: 70.23

STANDARD DEVIATION: 17.61

STANDARD ERROR OF THE MEAN: .33

*statistically significant change

Interpretive Panels

Computing

Mike Balduan, Catlin Gable School
Marilyn Blume, Salem School District 24J
Don Fineran, Oregon Department of Education
Glen Moran, George Fox College
Oscar Schaaf, Lane ESD
Ron Waite, Blue Mountain Community College
Joanne Wilkie, Portland School District 1J

Reading

Ann Davis, Sherwood School District 88J
Barbara Dixon, Bend School District 1
Jean Ferguson, Western Oregon State College
Ninette Florence, Oregon Department of Education
Erma Inscore, Douglas County School District 4
Donna Long, South Lane School District 45J3
Carol Polanski, North Clackamas School District 12

Writing

Mary Lee Alberts, Grants Pass School District 7
Don Austin, Portland School District 1J
Ken Cheney, Linn-Benton Community College
Gay Enlow, Salem School District 24J
Frank Mazzio, Oregon Department of Education
Nat Teich, University of Oregon
Ann Ulum, Coos ESD

Test Review Panels

Dick Brannan, Lane ESD
Ann Davis, Sherwood School District 88J
Gay Enlow, Salem School District 24J
Dennis Evans, Oregon State University
Don Fineran, Oregon Department of Education
Ninette Florence, Oregon Department of Education
Marjorie Kirrie, Portland State University
Gerry MacKinnon, Portland School District 1J
Jan Markee, Salem School District 24J
Frank Mazzio, Oregon Department of Education
Linda Peters, Portland School District 1J
Oscar Schaaf, Lane ESD
Tom Straugh, Greater Albany School District 8J
Jim Swanson, Lane ESD
Nat Teich, University of Oregon
Ann Ulum, Coos Bay ESD

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OREGON STATEWIDE ASSESSMENT 1982

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___ More than half
___ Less than half
___ Just skimmed

Does this publication fulfill its purpose as stated in the preface or introduction?

___ Completely
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___ Not at all

Did you find this publication useful in your work?

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___ Seldom
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_____

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