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## ABSTRACT

This study includes exercises which assessed five rudimentary skills involved in understanding and intercreting imaginative literature. The study is one of a series by the National Assessment of Educational Progress, which gathers informaticn about the eudcational attainments of 9, 13, and 17 year olds and adults (ages 26-35) in ten subject areas. This report includes the testing devices and detailed discussions and graphs of the results for exercises in (1) the rhythm and logic of foetry; (2) ability to recognize puns; (3) recognitior of the tenor and vehicle of metachors in poems; (4) "form similarity exercises," requiring people to choose the genre best describing similar types of writing; and (5) minference exercises," requiring identification of the tone of a passage and a written defense of the answer. In addition to these topics, the study.includes an abstract of the results, a discussion of how the results are presented, and a discussion of the limitations of the data. An appendix presents the complete results for all of the exercises, including the national percentages, the standard errors, and the differences from the national figures for each group studied. (Author/DI)


REPORT 02-L-01
UNDERSTANDING IMAGINATIVE LANGUAGE
1970-71 Assessment

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
a veroject of the education commission of the states

## NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

A Project of the Education Commission of the States
Winfield Dunn, Governor of Tennessee, Chairman, Education Commission of the States
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James A. Hazlett, Administrative Director, National Assessment

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REPORT 02-L-01
UNDERSTANDING IMAGINATIVE LANGUAGE
Theme 1 of the National Assessment of Literature

March, 1973

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"Let us sit on this $\log$ at the roadside," says $I$, "and forget the inhumanity and ribaldry of the poets. It is in the glorious columns of ascerta $n$ ned facts and legalized measures that beauty is to be found. In this very log we sit upon, Mrs. Sampson," says 1 , "is statistics more wonderful than any poem. The rings show it was sixty years old. At the depth of two thousand feet it would become coal in three thousand years. The deepest coal mine in the world is at Killingworth, near Newcastle. A box four feet long, three feet wide, and two feet eight inches deep will hold one ton of coal. If an artery is cut, compress it above the wound. A man's leg contains thirty bones. The Tower of London was burned in 1841."
"Go on, Mr. Pratt," says Mrs. Sampson. "Them ideas is so original and soothing. I think statistics are just as lovely as they can be."
O. Henry, The Handbook of Hymen

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## FOREWORD

Each year, beginning with its second assessment year, the National Assessment of Educational Progress publishes a General Information Yearbook which describes all major aspects of the Assessment's operation. The reader who desires more detailed information about how National Assessment defines its groups, prepares and scores its exercises, designs its sample and analyzes and reports its results, should consult the General rnformation Yearbnok for year 02, Reading and Literature (02-GIY).

Briefly, the National Assessment of Educational Progress is an information gathering project which surveys the educational attainments of 9 -year-olds, 13-year-olds, 17-year-olds and adults (ages 26-35) in ten subject areas: Art, Career and Occupational Development, Citizenship, Literature, Mathematics, Music, Reading, Science, Social Studies, and Writing. Two areas are assessed every year and all areas are periodically reassessed in order to measure educational progress. Each assessment is the product of several years' work by a great. many educators, scholars and lay persons from all over the country. Initially, these people design objectives for each area, proposing specific goals which they feel Americans should be achieving in the course of their education. These goals are reviewed by more people and then passed along to developers of tests, whose task it is to create measurement tools appropriate to the objectives.

When the exercises prepared by the test developers have passed extensive reviews by specialists in the subject matter and in measurement, they are administered to probability samples of various populations. The people who comprise those samples are chosen in such a way that the results of their assessment can be generalized to an entire national population. That is, on the basis of the performance of about 2,500 9-year-olds on a given exercise, we can generalize about the probable performance of all 9-year-olds in the nation.

After assessment data has been collected and analyzed, National Assessment publishes reports such as this one to present the results as accurately as possible. So that there may be no misunderstanding of the results published in this volume, we urge the reader to consider the following discussions of the reporting format and the limitations of the data.

## How National Assessment Results are Presented

Each theme provides several kinds of information about the results for each exercise.

First, there are national results for all foils or all scoring categories. Printed along with each exercise are the national percentages of people who selected each choice or were placed in each scoring category These figures should add up to 100\%, but sometimes they do not because they have been rounded off to the nearest tenth.

Then there are group results (graphic and tabular) for correct choices and appropriate scoring categories. National Assessment divides the national population into various groups or categories of people in order to provide data about certain types of schools and students. The ariables are region of the country, sex, color, parental education, and size and type of community. Within each variable there are at least two groups. Each of the variables and groups is fully defined in the General Information Yearbook, but the following explanations may serve the reader's purposes:

Region. The country has been divided into four regions-Southeast, West, Central, and Northeast--in order to present results for various regions relative to the national results.

Sex. For every exercise we present the results obtained by males and by females.

Color. Currently, we present results for Blacks and Whites.
Parental Education. The four parental education categories are defined by the highest level of education attained by either of a person's parents. The no high school category is comprised of all people who indicated that neither parent went to high school. The some high school category consists of all those who indicated that the parent with the most education attended high school but did not graduate. In the graduated from high school category are all those who indicated that at least one parent graduated from high school, and in the post high school group are all who indicated that at least one parent received some post high school education. (This may mean college, but it also includes adult education courses of any kind, vocational training, etc.).

Size and Type of Community (STOC). The cateyories or groups within this variable are defined by the size of a person's community and an occupational profile of the area his school serves. Again, the reader should consult the General Information Yearbook for precise definitions of these groups.

1. Extreme Inner City. People in this category attend schools in cities with populations greater than 150,000; the schools serve areas in which
a high proportion of the residents are on welfare or not regularly employed.
2. Extreme Rural. People in this category attend schools in a community having a population less than 3,500. Most residents in the area the school serves are farmers or farm workers.
3. Extreme Affluent Suburb. Individuals in this group attend schools within the city limits or residential area served by a city with a population greater than 150,000; the area served by the school consists primarily of professional or managerial personnel.
4. Resi of Big City. These are students attending schools in a big city (population greater than 200,000) who are not included in either the Extreme Inner City or Extreme Affluent Suburb groups.
5. Medium Size City. Individuals in this category attend schools in cities with populations between 25,000 and 200,000.
6. Small City. People in this group attend schools in a community of less than 25,000 inhabitants.
7. Suburban Fringe: People in this group attend schools in the metropolitan area served by a city with more than 200,000 inhabitants; the school and the area it serves are outside of the city limits.

Size of Community Groups. The results for 9-, 13-, and 17-year-olds who are in school can be presented in terms of these STOC categories. However, we do not have the information necessary to present the results for adults and out-of-schooi i\%-year-olds in the same way. Consequently, the following less spectific breakdown of results appears for all 17-year-oids (in and out of school) and young adults:

1. Big City. In this group are all adults and out-of-school 17-year-olds who live in cities with more than 200,000 inhabitants; also included are 17-year-olds who attend schools in the same sized cities.
2. Urban Fringe. This category consists of adults and out-of-school 17-year-olds who live in the metropolitan area served by a big city; but
outside of the city limits. It also includes 17-year-olds attending school in such areas.
3. Medium Size City. This category is comprised of adults and out-of-school 17-year-olds who live in communities with populations between 25,000 and 200,000; it also includes 17-yearolds attending schools in such communities.
4. Small places. Adults and 17-year-olds who live or attend school in communities with populations under 25,000 fall into this group.

Group Effects or Differences from the National Percentage
The graphs of group performance present, along with the percentage of success for sach group, a percentage which indicates how that group's performance differs from the national performance. If the percentage is lower than the national percentage, the difference is expressed as a negative number; otherwise, it is a positive number. These "effects," or differences from the national percentage, always appear in the column at the left margin of every graph.

## Significant Differences

The object of a national assessment is to determine what an entire population (all 9-year-olds, say, or all Blacks) have achieved. Since we cannot assess everyone, we have to draw samples of people and infer from their achievements what everyone would achieve. All of our results, then, are estimates; but we are confident that they accurately reflect performances of entire populations plus or minus some small error.

In our discussion of differences between group percentages and national percentage, we want to call attention to those effects which are almost certain to exist in the population and are not products of random sampling error. National Assessment computes these significant differences by using a measure of the variability in responses called a standard error. Since we want to be confident that a difference in percentages can be relied upon to appear in an entire population, we have adopted a statistical convention whereby, for each exercise, every group percentage which is more than 2 standard errors above or below the natjonal percent will be viewed as a significant difference. Differences that large would occur only rarely by chance (i.e., less than 5\% of the time) if no real difference existed; differences of 2 standard errors or larger would probably indicate that the group and national percentages are really different. These significant differences are the starred figures in the column of differences on the left margin of each graph. They are usually
the only effects discussed in the text and are referred to as "significant," "noteworthy," "notable," "reliable," and so on. Though the graphs represent many apparent differences from the national figure, we are not prepared to state that the unstarred results are anything other than random departures from the national figure; however, we are quite sure that the starred figures are not random departures.

Graph A shows what percentage of 9-year-olds selected the correct answer to an exercise both in the country as a whole and in various groups. The figures in the second column are percentages of success. The top line shows that about $45 \%$ of all the youngsters answered correctly; at the end of the line of stars which represents this figure there is a vertical dashed line running to the bottom of the graph. The displacement between the end of a starred line and the dashed line depicts the difference between a group result and the national figure. The precise numerical differences appear in the left-hand column of figures: ten of them are starred--i.e., significant-and these ten would be discussed in the ensuing text.

The results depicted by graph $A$ are representative of results found most often in this theme: that is, the starred lines usually get longer as one looks from the top of a set of variables to the bottom. Put another way, the Southeast line is usually shorter than the Central or Northeast line, the male line shorter than the female, the Black shorter than the White, the no high school shorter than the post high school, and the inner city line is shorter than the affluent suburb line.

The text for each exercise serves to highlight the notable features of the results. It is not in any way definitive. Rather, it is intended to present all pertinent data about the exercise and the information it yielded in order that each reader may judge for himself the usefulness of this material and its implications for the teaching of literature to different sorts of people.

Graph A


## Limitations of the Data

Within the limitations due to measurement ${ }^{1}$ and sampling error, 2 the obtained data as presented in National Assessment reports accurately describe the educational achievements of certain groups as they actually exist in the real world.

[^0]When the data show that a group has achieved either above or below the nation as a whole, one must exercise great caution in speculating about the causes of these obtained differences. Many factors may affect an individual s ability to give acceptab'e responses to exercises in the assessed subject areas. Consider, for example, a hypothetical group whose achievement is well abov, $\because$ tional average. Most members of the group may attend scr... is ;ihich have excellent physical facilities and high quality faculties, belong to families which have attained a high socio-economic level, have well-educated parents, come from homes with many reading materials and so on. All these factors could contribute to the group's high level of achievement, while membership in the group itself may contribute very little or nothing.

The name of a group is merely a categorical label. When we look at the data for a given group, therefore, we cannot say that any difference in achievement between that group and the nation as a whole is attributable solely to membership in that group. In other words, a group must not be construed as necessarily being the cause or even being a cause for the comparatively high or low achievement of that group as compared to the nation as a whole. Often, a disproportionately large percentage of the members of a group of interest are also members of particular groups defined by other factors. All these factors may contribute to the group's high (or low) level of achievement.

The author of this report is indebted to Lois J. Fowler, James E. Miller, Norine Odland, Dorothy Shaw, and David Sohn for their generous advice.

## INTRODUCTION

One of the goals listed in the 1965 National Assessment Literature Objectives was "Read a work with literary comprehension." The teachers of English who drafted the objectives felt that it was important for a reader to understand some of the features of literary works that distinguish them from "nonliterary" uses of language. They asked, for instance: Do readers recognize stylistic or formal similarities between works? Are they able to perceive puns? Are readers able to comprehend the sense and tenor of metaphors? In other words, are people cognizant of the various ways in which writers exploit language imaginatively in works of literature? It is important that they have some understanding of the language of literature in order to fully understand and enjoy literature itself.

Peop'e who create art out of words demand more of language than most prople do; they attend more carefully to sounds and rhythms; they play with meanings and double meanings, flirt with ambiguity, honor suggestiveness as highly as specificity. A reader who does not understand this may well miss much that is happening in a work of literature. Expecting the work's language to operate only as language does in ordinary discourse, he will be handicapped by a literalism that preempts both insight and delight.

The exercises reported in this volume provide some information about how well people recognize and respond to certain elementary features of language as it often operates in works of literature. The first chapter presents the results of exercises which explore a reader's ability to follow the logic of a poem and to grasp its rhythm. The second chapter deals with recognition of stylistic and formal similarities in literary passages. The third involves exercises which assess perception of puns, and the fourth, exercises assessing comprehension of metaphors. The fifth chapter presents the results of exercises requiring readers to draw inferences about the mood, tone or atmosphere of a given work.

Needless to say, these exercises deal with only a few of the many features of language that make literature such a rich source of experience. Some of the features are more important than others, and doubtless some major features have been ignored altogether in this first assessment. Regrettable though this may be, it was inevitable, considering the enormous number of possible skills associated with literary understanding and the limited number of exercises permissible within the time limits of the assessment. Faced with a choice between comprehension coverage
and more limited--but more intensive--coverage of a few areas, the exercise designers opted for the latter course. The reader should recognize that because of this decision, the materials published here do not present a composite picture of overall ability to understand the language of literature.

This lack of comprehensiveness (in this particular theme) was underscored by a panel of teachers of English who previewed these results in July 1972.1 They strongly urged that rearlers of this report not generalize about overall literary competence on the basis of comparatively little information about comparatively few aspects of literary understanding. The panelists also felt that some of the exercises were of questionable value as tools for assessing understanding of literary language.

Accordingly, they suggested that readers of the report be provided with the kinds of questions they themselves used in examining exercises. These questions are not the only ones a reader might ask, but they do indicate the range of considerations the panelists felt were most important, and they do represent the sorts of questions one should ask about any attempt to measure literary understanding: how important a part does the behavior being measured by an exercise play in a person's overall response to literiry language? Do the instructions to each exercise lead re spondents to display the skill or understanding the exercise is seeking to measure? How free of distracting elements is each exercise stimulus? What could a person's selection of each choice in a multiple choice exercise tell us about his or her probable literary understanding or ability? In other words, can one be confident that those who select desirable or correct responses possess the skill, or understanding being measured, and is it probable that those who select wrong or undesirable choices do not have that skill or understanding?

A reader who can answer these questions should be able to more accurately appraise the exercises and gain some understanding of the implications of these results for education in the area of literature.

[^1]
## CHAPTER 1

## ABSTRACT OF RESULTS

There are five kinds of exercises in this report: (1) exercises designed to assess rudimentary skill in following rhythm or logic (or both) in poetry--these consisted of incomplete poems and instructions to supply the missing lines that best completed the poems; (2) pun exercises, designed to determine ability to recognize puns in passages which may or may not contain puns; (3) metaphor exercises, which assessed recognition of the tenor and vehicle of specific metaphors in poems; (4) "form similarity" exercises, requiring people to identify similar types of writing and choose the genre which best describes them; and (5) "inference" exercises, requiring identification of the tone or mood of a passage and a written defense of answer. The exercises in this theme assessed understanding of imaginative written language; they did not deal in any way with oral expression.

Overall theme results can tell us something about the performance of each group relative to the national performance on all exercises. The following discussion is intended to illustrate such group differences, not to ascertain what the differences mean in terms of literary skills (or the lack of them).

## Overall Group Results for 9-Year-Olds

Percentages of success on 18 exercises in the theme, Understanding Imaginative Language, ranged from $7 \%$ to $91 \%$ and the median national percentage was $51.6 \%-$ in other words, half the percentages were greater than $51.6 \%$, half were less. In the exhibits, each box represents the difference in performance between a group and the nation as a whole on a particular exercise. For example, on Exhibit A, the bottom box in the Southeast column shows that the Southeast was $12 \%$ below the national percentage on that exercise. The arrows depict the median of the differences for a group, enabling the reader to see how far above or below the national level each group's median difference lies. Empty boxes correspond to exercise differences which were considered atypically above or below the group median difference.

Percentages of success for the Northeastern group were above the national mark on 12 of the 18 exercises. This was true for the Western 9 -year-olds only five times. Nine-year-olds from the Central states registered percentages of success greater than the national percentage on 16 of the 18 exercises--their median difference was $3.5 \%$. The Southeastern group percentage was lower

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than the nation's on all 18 exercises, and its median difference was -4.6\%. On one particular form exercise (R117) requiring children to notice that two of four passages were poetic, the Southeastern percentage of success was 12 points below the national figure.

On most exercises (13 of the 18), females did better than males. This was especially noticeable on inference exercises, which required written responses, and form similarity questions. The female median difference was $1.5 \%$, and the male median difference was -1.5\%.

The median difference between Black and national results was -13.7\%. On no exercise reported in this theme was the Black percentage of success as high as the national level. On form similarity exercises, it was about 20 points lower. Nine-yearold Whites nearly always performed slightly better than all 9-year-olds.

Children in the no high school parental education category generally performed less well than those whose parents had at least some high school education. This group's results were particularly low on metaphor and form exercises (see Rll3 and Rll7, for instance). Its median difference was $-5.6 \%$. The some high school group did somewhat better (it was above the national percentage on five exercises) and the graduated from high school group generally performed on a par with all 9-year-olds. Children whose parents have had more than a high school education demonstrated a decisive advantage throughout the literature assessment. Their group percentage was always above the national level of achievement and their advantage was particularly great on exercises which 9-yearolds in general found difficult.

The extreme inner city group performed consistently below the national level of performance. On nine of the exercises its percentage was more than 14.5 points below the national figure, and on eight it was between -14.5 and 0 ; only once was its percentage equal to or better than the national result. The extreme rural group's median difference was -3.3\%. On three exercises its results were better than the national results--see especially Exercise Rl01--but on the other 15 exercises, its percentages were always lower. Over all the exercises, students in the rest of big city, medium city, and small city categories achieved results similar to the national results. The suburban fringe subgroup had a percentage of success equal to or greater than the national figure on 15 exercises. Its median difference was 2.5\%. On no exercise did the extreme affluent suburb group perform below the national percentage of success. On one form exercise (R117) its advantage was $16.4 \%$. Half the time its percentage of success was $6.8 \%$ above the national figure, and half the time it was less than 6.8\%. But almost always this group registered significantly higher percentages of success than all 9-year-olds together achieved.

## Overall Group Results for 13-Year-Olds

Percentages of success on 29 exercises in this theme ranged from $10.3 \%$ to $87 \%$ and the median national percentage was $64.9 \%$. Exhibit $B$ reveals that the Northeast and Central regional groups generally performed slightly better than all 13-year-olds. The median difference was $1.9 \%$ for both regions. For the West it was 1\%. Southeastern students did not do as well as all 13-year-olds, since on all of the 29 exercises their figure was below the national figure. Their median diffesence was -5.7\%.

On 20 of the 29 exercises, the percentage of success for females was above the national percentage. They did particularly well on the inference exercises, which required written responses. Males, with a $-1.7 \%$ median difference, were generally below the females. But on some exercises--notably missing-line exercise R103, and metaphor exercises Rll4 A and B--they did unusually well.

As at age 9, Blacks did not register percentages as high as the national figures--they were below it on all of the 29 exercises. However, on some exercises they did unusually well relative to their normal performance--see, for instance, the second part of Exercise Rll4 B. The White median difference was $2.9 \%$. As a group, Whites did unusually well on Rli4 A.

Thirteen-year-olds in the no high school parental education group never achieved results as high as all l3-year-olds did on any of the 29 exercises. The median difference for that group was $-11.6 \%$, and for the some high school group it was $-4.3 \%$. The results for the graduated from high school group were equal to or better than the national results on 16 of the 29 exercises. This group did particularly well (relative to its usual performance) on R125, an inference exercise. The post high school group's median difference was $7.1 \%$. The results for this group were always better than the results obtained by all 13-year-olds.

Of all the STOC groups, the extreme inner city group consistently registered the lowest percentages of success. Its median difference was $-7.5 \%$. Rural students were often below the national level of achievement too; their median difference was -4\%. The rest of big city category's percentages were above the national figure on 12 of 29 exercises; the group's results were unusually low on exercises requiring writing. The medium size city and small city categories were at or above the national figure about half the time, while the suburban fringe group was usually at or slightly above the national figure. However, the extreme affluent suburb group achieved better results than all 13-year-olds did on all but 3 of the exercises, as its median difference of $5.6 \%$ indicates. People in this group did partic-

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##  THEME I EXERCHEES - - REE 13



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ulerly well on Rl09 A; a pun exercise, and Rll8, a form exercise. Their lowest percentage of success was on the second part of R114, a metaphor exercise.

## Overall Group Results for 17-Year-01ds

Percentages of success on the 27 exercises in this theme ranged from $16.3 \%$ to $94.5 \%$; the median national percentage was $80 \%$.

On none of the exercises did the Southeastern 17-year-olds perform at or above the national percentage of success. People in this group did especially poorly on the inference exercises and one pun exercise (Rll0 A). Their median difference was $-4.9 \%$. The Western regional group was above the national level on about half ( $56 \%$ ) of the exercises, and its median difference was $.9 \%$. The Northeastern percentage of success was above the nationel figure on 3 of every 4 exercises. Its median difference was 1.2\%. The Certral region had the highest median difference (1.7\%) and the greatest percentage of exarcises ( $85 \%$ ) on which its percentage of success was greater than the national one.

Females consistently outperformed males. $O_{i 1} 22$ of the 27 exercises they were above the national percentage of success and the males were below it. They did particularly well on the written part of the inference exercises and on form questions. Males did quite poorly on those items, relative to their usual performance. However, they did unusually well on metaphor exercise Rll5 B. The median difference for females was $1.3 \%$, while for males it was -1.3\%.

On no exercise in this theme was the percentage of success for Blacks as great as the national figure. On 6 exercises the difference was less than $10 \%$, but usually it was greater; the group's median difference was -15.7\%. Given their general performance, however, the Blacks did unusually well on two metaphor exercises (Rll2 A, Rll3). Their lowest percentages of success were on the inference exercises, which required some writing. Whites as a group always registered percentages of success above the national figure. Their median difference was $2.3 \%$. They did particularly well (relative to their general performance) on two of the inference exercises (R126, R127) and on a pun exercise (R110 A). Their results were relatively poor on the second parts of exercises R112 A and R113.

Neither of the two lower parental education catecories ever registered a result at or above the national percentage of success. The graduated from high school group emerced above the national level on 8 of the 27 exercises, and the post high school group was always above that level. On half of the exercises, the results for the latter group were below 6\%, and on half they were
above. Relatively poor results appeared on parts of exercises Rll2 A and Rll3, but the group obtained exceptionally high percentages of success on inference exercises (R124, R126, R127), and a pun exercise (Rllo A). Seventeen-year-olds in the small places category did not do as well as those in other size of community groups. Their percentages of success were above the national figure on only 6 of the 27 exercises. The big cities group was above the national level on 9 exercises, and the medium size city on 13. The big city fringe group consistently performed best of these groups; its percentages of success were greater than the national figure on 24 of the 27 exercises. Its percentages of success were unusually high on the same exercises which the post high school group did well on: the inference exercises and the pun item. However, its achievement was sub-par on exercise Rll4 B, a metaphor exercise.

## Overall Group Results for Adults

The results on 21 exercises taken by adults ranged from $10.8 \%$ to $95 \%$; the median national percentage of success was $69.6 \%$.

As at the other ages, the Southeast regional group did not perform as well as the other regions. It never recorded a percentage of success at or above the national figure; the median difference was -7.8\%. It did relatively well on the second part of Rlll A, a metaphor exercise, but its performance was unusually low on pun exercise Rllo A and inference exercise Rl27. The Northeastern region performed above the national level on 12 of the 21 exercises. Both the Central and Western regions, however, were above the national figures on 16 of the exercises. Westerners did particularly well on the inference exercises which called for written responses.

Over the 21 exercises, adult males demonstrated an advantage over females 11 times. However, the difference between the sexes' median percentages is only $6 / 10$ ths of a percent, so males cannot be said to have much of an advantage.

Percentages of success for Black adults never equalled or surpassed the national mark. The median Black difference was -19.9\%. However, the group registered a relatively high figure on the second part of Rll2 A, a metaphor exercise. The results for whites as a group were always at or above the national percentage of success.

As at the other age levels people whose parents have graduated from high school did better than those whose parents dropped out or never attended. The no high school parental education group never registered a percentage of success equal to or better than the national figure. The median difference was -9\%. Its showing was unusually low on exercises requiring written responses.
 THEME 1 EXERCTEES $-\infty$ FDLLT


EXHIEIT D. DIGTRIEUTIDN DF GRDLIP DIFFERENCES FIR FRL THEME I EXERCTEES an RDULT


The some high school group's median difference was about -1\%; on five of the exercises in this theme, this group performed above the national level. However, the graduated from high school category was above the national figure on 20 of the 21 exercises, and the post high school group's results were always better than the national results. The median difference for the former group was 4.2\%; for the latter, it was $8.2 \%$. As we noted at the other ages, the people in the highest parental education category performed particularly well on written responses (see exercise R127) ; they also did unusually well on R115 B-a metaphor exercise-and Rllo A , a pun question.

The best overall performance by a size of community group appeared in the medium sized city category. This group's percentage of success was above the national figure on 15 of the 21 exercises; the median difference was $1.7 \%$. The urban fringe percentage was greater than the national figure on 13 exercises, the small places category on 11. The big city group was below the national performance on 15 of the 21 exercises.

## CHAPTER 2

## EXERCISES IN POETIC RHYTHM AND LOGIC

Rhythm plays a far more important role in literature-especially poetry--than it does in ordinary discourse. Because poets mold their language to conform to rhythmic patterns, they must often arrange words in unusual ways. If a reader cannot follow the sense of a poem because of this accomodation to rhythm, or if he does not see how rhythm patterns alter or reinforce meaning, he will probably not understand well, or fully appreciate poetry.

The exercises discussed in this chapter-probed for two skills: (1) ability to follow the logic of a poem, and (2) ability to grasp poetic rhythm. People were presented with an incomplete poem and asked to supply the line or lines consistent with the meaning of the poem and its rhythm. Altogether, there were eight such exercises, three of which we are releasing at this time. They were all developed to gather data for the measurement of Objective IIBl, "Read a work with literary comprehension."

Ages 9 and 13 Objective IIB

The poem that follows has a line missing. Four stars stand for the missing line. Below the poem are three suggestions for the missing line. I will read the poem three times, once with each of the three suggestions. If you think about the meaning, one of the suggestions will make the MOST sense when it is put into the poem. Read the poem and the suggestions carefully as I read them to you; then fill in the oval beside the suggestion that you think makes the most sense. I will first read the poem with Suggestion $A$ where the stars are; then $I$ will read it again with Suggestion $B$ where the stars are. Finally $I$ will read the poem with Suggestion $C$ where the stars are.

## FIRST SNOW*

Snow makes whiteness where it falls, deleted due to copyright restrictions . *

Now fill in the oval beside the line which makes the MOST sense when it is put into the poem.


[^2]Exhibit 1. Percentage of 9-Year-Olds Selecting Choice B


Exhibit 2. Percentage of 13-Year-Olds Selecting Choice B


Exhibit 3. Percentage of 9-Year-Olds Selecting Choice C sDIPP PERCENT PROY CODRECT
WATION PESPONS



Exhibit 4. Percentage of 13-Year-olds Selecting Choice C SDIPR PERCENT
PROY
CORQRCT


This exercise requikes an understanding of the logic implicit in the poem's title and first three lines. Choice A is neither rhythmically nor reasonably consistent with the rest of the poem. Choice $C$ directly contradicts the meaning of the poem. Only B, "Look like somewhere else today," fits into the sense and rhythm of the poem.

Nonetheless, a large percentage of students at both age levels picked choice $C$, the worst of the three answers. Exhibits 3 and 4 present group breakdowns of the percentages choosing $C$.

Results for 9-Year-Olds
About $40 \%$ of the 9 -year-olds supplied the correct line (exhibit 1). However, a slightly higher percentage (42\%) chose the line which directly contradicts the meaning of the poem (exhibit 3), and almost $15 \%$ chose the line most rhythmically inconsistent with the other lines in the poem.

Students in the extreme rural category achieved a much higher percentage of success (54\%) than did 9-year-olds in general or 9-year-olds in any other group. The percentage in the extreme inner city category was 22 points below the national level, a figure that was less than it probably would have been if the students in this group had randomly marked an oval. The disparity in these results may indicate that the subject matter of the poem influenced the results. That is, rural 9-year-olds might have done better because they have more firsthand experience with snow than inner city students. After all, does the first snow change things very much in the city? It is also possible, of course, that the general tone and import of the third choice--"Look just the same as yesterday"--somehow struck a responsive chord in the experience of inner city children. Whatever the reason, almont two-thirds of them selected this line over the correct, and somewhat more optimistic, answer. More than half of the Black 9-year-olds made the same choice; only $24 \%$ selected the correct line.

On the positive side, almost half of the students whose parents had more than a high school education chose the correct answer, a proportion notably larger than the national proportion.

Results for 13-Year-Olds
More than half of the 13-year-olds supplied the correct line (exhibit 2), but a third of them, like many of the 9-yearolds, selected choice C (exhibit 4).

The results for the rural students were not nearly so far above the national results as they were at age 9. Perhaps at
this age they attend more to the text than to their own experience. However, the percentage of students in the extreme inner city category who answered correctly was 14 points below the national figure, and this still represented a significant deficit. A higher percentage of them, in fact, chose the third line than chose the correct one, as exhibit 4 illustrates. Black l3-yearolds demonstrated the same pattern, almost half of them selecting choice $C$, and two-fifths of them selecting the correct answer.

The percentage of success for students from the Southeastern United States was significantly below the national percentage for 13 -year-olds, though it was not for the 9 -year-olds.

In the parental education categories, the only significant difference from the national figure appeared in the post high school group; almost two-thirds of the students whose parents have had more than a high school education correctly selected choice B.

## Age Comparisons

The national results indicate that 13 -year-olds were more successful in choosing the correct line than were 9 -year-olds. More than half of the older students selected the correct line, while only two-fifths of the 9 -year-olds did so. Furthermore, fewer l3-year-olds chose the answer which directly contradicts the sense of the poem (choice C), whereas more 9-year-olds chose that answer than chose the correct one. Finally, twice as many 9 -year-olds as l3-year-olds selected choice $A$, the line which was most rhythmically inconsistent with the rest of the poem.

One could hope that the l3-year-olds were more successful because they were more skilled at reading poetry; but it is also possible that their advantage was a consequence of greater all-around reading skill and maturity.

Exhibit 5. Percentage of Correct Responses, Age 13
WIPD PFRCENT
PROM CORRECT
VATION RESPONS
$=============$
VARIABLP GROUP
PEACFYT CORAECT RESPONS:

| --- | 82.9 |
| :---: | :---: |
| -5.3* | 77.6 |
| 1.6 | 84.5 |
| 1.1 | 84.0 |
| 2.4 | 85.3 |
| 1.3 | 04.2 |
| -1.3 | 91.6 |
| -24.2** | 59.7 |
| 4.3* | 37.2 |
|  | - |
| -19.7* | 63.2 |
| -8.5* | 74.4 |
| 0.7 | 93.5 |
| 8.0* | 90.9 |
| -9.3* | 73.6 |
| 0.1 | 83.0 |
| -0.3 | 82.6 |
| 2.1 | 85.0 |
| 2.7 | 85.6 |
| 1.7 | 04.6 |
| 0.9 | 83.6 |

Exhibit 6. Percentage of Correct Responses, Age 17


Exhibit 7. Percentage of Correct Responses, Adults


Like the "First Snow" exercise, this one also requires respondents to supply an answer that is consistent with the sense of the poem. Again, one answer is a pleasant digression not integral to the poem (a), one is directly opposed to the logical direction of the poem (b), and one is correct. This time, however, there are two missing lines, instead of only one. This did not appear to make the exercise more difficult than "First Snow," however, since l3-year-olds were more successful on this exercise than on the earlier one.

## Results for 13-Year-01ds

As exhibit 5 indicates, students in five subgroups posted results appreciably below the national percentage. Though 13-year-olds in three of the regions performed very much as all 13-year-olds did, the percentage of Southeastern students (78\%) was slightly below the national figure of 83\%. So too was the percentage of 13 -year-olds in the extreme inner city STOC category, though three out of four of them did select the most appropriate
missing lines. The percentage of success for Blacks was 24 points below the national level; J.8\% of them selected choice A and $21 \%$ selected choice B. Also significantly below the national figure were the students in the nc high school and some high school parental education categories.

Neither males nor females demonstrated any advantage on this exerci:3e. White 13-year-olds, however, demonstrated a success level that was significantl $y_{l}$ above the national level. Teenagers in the post high school parental education category were $8 \%$ above the national figure, with the highest percentage of success for any group: nine out of ten of them chose the missing lines most suited to the poem.

Results for 17-Year-Olds
As exhibit 6 reveals, more than nine out of ten 17-year-olds selected the two most appropriate lines. However, students in three groups were somewhat less successful than the rest. Black l7-year-olds, for instance, posted a figure 13 percentage points below the national figure of 78.5\%. And teenagers in the two lower parental education categories were also less successful in choosing the best lines than were all 17-year-olds.

The highest percentages of success appeared in the Central region, and in the White and post high school groups. About 95\% of the 17-year-olds in each of the two latter groups selected the correst missing lines.

## Rest:1ts for Adults

Exhibit 7 reveals that two out of three Black adults seiected choice $C$, the correct response; nonetheless, this proportion was notably smaller than the proportion of all adults-Black and White combined--who made the same selection. Fifteen percent of the Blacks selected the first choice and $12 \%$ selected the the scicond. Also somewhat below the national figure was the percentage of successful adults in the no high school parental education vetegory.

A higher percentage of White adults (93\%) than all adults (908) selected the best lines. Adults in the some high school and post high school parental education categories accomplished the same feat; though this is frequently the case with the latter category, it is seldom so for people in the some high school group, who appear to have been more successful than people whose parents graduated from high school.

A smaller percentage of 13-year-olds than 17-year-olas and adults selected the lines most appropriate to the poem. Within the various groups, the differences between high and low perceniages appeared more extreme at age 13. For instance, the difference between the no high school and post high school groups at age 13 was 28 percentage points; at age 17, that difference was 10 percentage points, and at the adult level, it was 7. Moreover, l3-year-olds who claimed that at least one parent had more than a high school education registered a percentage of success almost equal to the national percentage for all 17-year-olds. Parental education appears to have been an important factor in the performance of l3-year-olds, but less important for the older people.

The national results for each foil show that twice as many 13-year-olds as 17 -year-olds selected the lines, "I'd like to be the pilot/I know it would be fun." perhaps this indicates that the younger people tended to be more strongly involved with the fantasy of the poem than with its logical progress; but it may also be that they were less able to follow the logic of the poem.

All Ages
Objective IIB

The poem that follows has a line missing. Four stars stand for the missing line. Below the poem are three suggestions for the missing line. I will read the poem three times, once with each of the three suggestions. One of these suggestions is best; the other two say much the same thing, but their sound or their language is not right. Read the poem and the suggestions carefully as I read them to you; then fill in the oval beside the suggestion that you think is the best. I will first read the poem with Suggestion A where the stars are, then I will read it again with Suggestion $B$ where the stars are. Finally, I will read the poem with Suggestion $C$ where the stars are.

There was an old man with a beard Who said, "It is just what I feared: Two owls and a hen Four * larks and a wren
*

Now fill in the oval beside the suggestion which you think makes MOST sense when it is put into the poem.

National Results Age 9 Age 13 Age 17 Adult

| 24.18 | $17.0 \%$ | 11.38 | 12.08 | $\bigcirc$ | A. Are in my beard!" |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 49.1 | 67.5 | 80.0 | 72.6 |  | B. Have all built their |
| 23.3 | 13.8 | 7.3 | 13.1 | $\bigcirc$ | C. Are flying around and <br> around my nice beard!" |
| 3.3 | 1.7 | 1.0 | 1.1 | $\bigcirc$ | I don't know. |
| .2 |  | .4 | 1.2 |  | No 2 sponse |

Exhibit 8. Percentage of Correct Responses, Age 9

SOIFT PEPCEMT RROH CORPECT



Exhibit 9. Percentage of Correct Responses, Age 13
$\qquad$ WATION RESPOFSE

$-3.9 *$
-4.0
$5.9 *$
0.6
67.

| .6 |
| :--- | 63.5

73.4 68.4
68.1
vaniable
GROOP

sarionat

EEGIOH
sex
celog
-11.4 56.1
$\begin{array}{rr} & \\ -15.2 * & 52.3 \\ -5.1 & 62.4 \\ 1.0 & 68.5 \\ 6.4 * & 73 .\end{array}$

No 日igh School
Some High school



Q) conmontit
-




Suburban Tringe whew


Exhibit 10. Percentage of Correct Responses, Age 17


Exhibit 11. Percentage of Correct Responses, Adults


Unlike the two previous exercises, this one requires the respondent to choose the line which is rhythmically correct for the poem. Choices A and C are metrically inconsistent with the limerick's form; only B will work.

## Results for 9-Year-Olds

About half of all the 9-year-olds chose the line which best completes the limerick. Three percent either did not answer or marked "I don't know," and the remaining $47 \%$ split their choices evenly between answers $A$ and $C$.

Exhibit 8 demonstrates that the only groups with percentages significantly below the national figure were the extreme inner city group and the Blacks. Two-fifths of the 9 -year-olds in the first category selected the appropriate line, while a slightly higher proportion (42.5\%) of the Blacks did so.

Children in two other groups performed substantially above the national level: $55 \%$ of the 9 -year-olds in the Central states and $54 \%$ of those in the post high school parental education category chose the best line. Though students in the no high school category appeared to have the same figure as those in the post high school category, we cannot be certain that their percentages differed significantly for reasons discussed in the foreword.

Though the percentage of success for Black children was slightly below the national level and the percentage for Whites was slightly above, the difference between the two figures was not particularly great.

Results for 13-Year-01ds
Two out of every three 13-year-olds selected choice $B, 17 \%$ selected $A$ and 148 selected $C$; the remainder either did not know the answer or gave no response.

Exhibit 9 reveals that a significant difference exists between the Southeastern proportion of students choosing the correct line and the national figure. Males, too, registered a percentage notably lower than the national figure. Fifty-six percent of the Blacks selected choice B, a figure 12 percentage points below the national level; $18 \%$ of them chose $A$, and 238 chose $C$. Also among the groups below the national level of achievement were the students in the no high school parental education category.

As at age 9, a higher percentage of 13 -year-olds from the Central region chose the correct line than did so in the nation as a whole. About three out of four teenagers in the extreme affluent suburb STOC category and the post high school parental
education category chose the line which best completes the poem. The percentage of success for females was significantly greater than the percentage for males and for all 13-year-olds throughout the nation.

Results for 17-Year-Olds
Four out of every five 17-year-olds chose B, "Have all built their nests in my beard:"; 11\% selected $A$, the short line; and $7 \%$ selected $C$, the long line. Significant positive effects occurred in the Northeast regional category (85\%) and the post high school parental education category ( $87 \%$ ). It also appeared that the percentages of success for both Whites and females was three points higher than the national figure of $80 \%-a$ slight, but significant advantage.

The size and type of community breakdown for in-school 17-year-olds reveals that $86 \%$ of those in the extreme affiuent suburb category selected the correct line. STOC information for all 17-year-olds is unavailable, but the size of community breakdown indicates a significant advantage for teenagers in the fringe category--i.e., those attending schools outside the city limits but within the metropolitan areas served by a city with a population greater than 200,000 .

As exhibit 10 reveals, 17-year-olds from the Southeast performed somewhat less well on this exercise than did all 17-yearolds. Blacks were notably below the national figure at 598; $22 \%$ of them selected the first, very short line--"Are all in my beard"--and $14 \%$ chose the very long line--"Are flying around and around my nice beard."

The percentage of males selecting the correct line was 3 points beneath the national figure and 6 percentage points beneath the figure attained by females. Finally, as was true for the other age levels, a smaller than national proportion of the people whose parents have had little or no high school education selected the best line. More than one-fourth of them, in fact, selected either choice A or choice C.

## Results for Adults

Almost three-fourths of the adults (738) chose the line which best completes the limerick (exhibit 11). Two percent did not know or did not answer, while the remaining one-fourth divided their choices evenly between answers $A$ and $C$.

A smaller proportion of adults in the Southeastern states (62\%) selected this line than did so nationally. The male selection rate for this answer (67\%) was also below the national
rate, along with the rate for adults in the no high school parental education category (61\%). Fewer than half of the Black adults chose the correct line; the other half were evenly split between answers $A$ and $C$, with a nominal percent not responding or selecting "I don't know."

The highest percentage of success was registered by the adults in the post high school parental education category: 88\% of them successfully completed the limerick. Females (76.5\%), Whites (75.7\%), and westerners (79.3\%) also registered percentages appreciably above the national percentage of success for adults.

## Age Comparisons

The figures reveal a steady increase in percentage of success for school-age people: whereas only half of the 9-year-olds chose the correct line, two-thirds of the 13-year-olds and fourfifths of the 17-year-olds managed to do so. The overall performance of the adults, however, was closer to the performance of the 13-year-olds than to the 17-year-olds.

The group results indicate that southeasterners, males, Blacks, and people in the lower parental education categories registered percentages lower than the national figures at ages 13, 17, and adult. At these same ages, Whites, females and people in the post high school category consistently posted percentages above the national percentage of success. This pattern differs from that observed on the previous two exercises, in that females demonstrate a consistent advantage over males at all age levels. In general, female percentages of success were notably higher than male percentages on those missing-line exercises which required neople to select rhythmically appropriate lines. On the exercises which dealt with logic in poetry, the female and male performances were about the same.

The results discussed so far in this chapter are for released exercises only. In order to present a more complete picture of performance on exercises of this type, we are supplementing the released data with the results of both released and unreleased exercises in the following discussion.

Summary Results for 9-Year-Olds
Nine-year-olds answered five "missing-line" exercises altogether, two of which--"First Snow" and the limerick--have already been discussed. Their percentages of success were $39.9 \%$, 49.1\%, 54\%, 64.2\%, and 75.3\%.

Group performances on all exercises, were similar to group performances on each particular exercise: the group effects for students from the Southeast, Black students, students in the no high school parental education category and the extreme inner city category, were negative. However, 9-year-olds from the Central states did better, on the average, than 9-year-olds did in any other regional category. And both the post high school parental education group and the extreme affluent suburb group consistently registered percentages of success above the national percentage.

Summary Results for 13-Year-Olds
Thirteen-year-olds answered seven "missing-line" exercises altogether, three of which have been discussed in this chapter. Four of the exercises they answered were also administered to 9-year-olds. The percentages of success for these exercises were $56.4 \%, 64.4 \%, 67.5 \%, 78.4 \%, 82.9 \%, 85.5 \%$, and 85.7\%.

Group performances on all exercises at this age level were somewhat different from the age 9 performances. In particular, the Central region did not dominate the other regions as it did at age 9; the Northeast group generally showed a percentage of success higher than the national figure. There was a more pronounced difference between the overall performance levels for males and females at this age, the girls selecting the correct lines at a somewhat higher rate than the boys.

The remaining group results are similar to those found for 9-year-olds: the Black inner city and lower parental education categories always registered percentages of success which were below the national percentage; the White and extreme affluent sub,urb groups, along with the post high school parental education group, always attained percentages of success higher than the national percentage.

## Summary Results for 17-Year-01ds

Seventeen-year-olds answered four "missing-line" exercises, two of which were discussed in this chapter. All four of the exercises were taken by 13-year-olds as weli. The percentages of success were $80 \%, 80.6 \%, 89.3 \%$, and $91.8 \%$.

The pattern of results for subgroups was very similar to the pattern evident in the results for 13 -year-olds, with the same subgroups above the national mark and the same below.

## Summary Results for Adults

Young adults responded to three "missing-line" exercises, all of which were also administered to 17-year-olds. The percentages of success were 69.6\%, 72.6\%, and 89.9\%.

The group results for adults were similar to those for the other groups except in the regional categories. Western adults posted percentages that were consistently above the percentages in the other regions and above the national percentage.

Summary Results for All A.res
At ages 9, 13, and 17, the region which displays the greatest positive difference from the other regions and from the nation as a whole is the Central region; at the adult level, it is the Western region. At all four age levels, the Southeast group did not perform as well as the other regions or as well as the entire nation.

Over all the exercises at all age levels, females performed somewhat better than males. As we noted earlier, the females' advantage consisted in their significantly greater success on the rhythm exercises. On those exercises requiring an ability to follow the logic of the poem, there was no advantage for the females, and, in fact, there was sometimes a male advantage.

The percentages of success for Blacks were consistently below the national percentages. However, a look at the graphs in this chapter reveals that at age 13, the Black figure on the limerick exercise did not represent as great a diffrrence from the national figure as appeared in the results of the "logic" exercises. The same phenomenon appeared for 13-year-olds in the extreme inner city category: on the first two exercises their percentages of success were significantly lower than the national figures, but on the meter exercise they performed no differently than all 13-year-olds did.

If missing-line exercises of this type are reliable indicators of ability to follow poetic rhythm and logic, the results imply that skill in this area increases considerably from age 9 to age 17. Only half or fewer 9-year-olds responded correctly to three of the five exercises they took. At age 13, however, the lowest national percentage of success was $56 \%$ and on the remaining six exercises two-thirds or more responded correctly. Though 17-year-olds answered only four exercises, the lowest national percentage they demonstrated was $80 \%$. Adults, who probably read little poetry, did as well as l3-ye?r-olds, but not as well as 17-year-olds.

Further information about other poetry reading skills appears in the following chapters and in themes 7 and 8 of the National Assessment Report on Reading.

Punning is the most well known, but by no means the only way of calling attention to the fact that a single word can refer to several things at once. Everyone who has resorted to puns at one time or another has exploited an aspect of language that appeals to many writers: ambiguity. In scientific or descriptive situations calling for explicitness and efficient communication, ambiguous language is undesirable. But in a work of literature, language is not just a vehicle for communication on a factual, propositional level, so ambiguity may well be appropriate. If a reader cannot recognize purposeful ambiguity in a literary passage and appreciate its role in establishing tone, sharacter, even meaning, then he may not fully understand what he is reading or derive from it the pleasure it offers.

Puns are a far cry from the sophisticated kinds of word play found in many great works of literature. Successful recognition of puns in the following exercises does not imply an ability to deal with more complicated manipulations of ambiguity and multiple reference. But failure to recognize puns may well imply the absence of a skill which can increase one's understanding and appreciation of many works of literature.

Exercise R109A, B
Ages 9, 13
Objective IIB

Instructiois

I am going to read you a number of sentences. I will read each one twice. As I read each sentence, read it to yourself. Some of the sentences contain a pun, that is, a word that has two meanings at the same time, and makes the sentence mean two different things at the same time. Here is an example:

Did you ever see a horsefly?

The way this sentence sounds, it could mean, "Did you ever see the kind of fly called a HORSEFLY?" But it could also mean, "Did you ever see a horse flying in the air?" On your paper draw a line under "horsefly." This would show that horsefly is a pun in this sentence. Some of the sentences you will read and hear will not have any puns in them.

Here is an example:
Q. "Why does a chicken cross the road?"
A. "To get to the other side."

None of the words in this joke are puns. That is, the joke is not funny because some word means two things at the same time. Write NONE after each sentence to show that there is no pun. Now I will read you a number of jokes and little poems and other sentences. Some will have puns in them. If you think there is a pun, draw a line under the word or the words that you think are puns. If you think there is no pun, write the word NONE after the sentence.

Released Parts
A. The only sure way to double your money is to fold it and put it in your pocket.
B. Always spread newspaper out in front of the fireplace so if any sparks fly out they won't get on the rug.


Part A

Exhibit 12. Percentage Recognizing Pun, Age 9

SDIP: PPRCENT
POOH COQRECT
WATION RYSPOYSE
$==\pi=\pi=\pi==\pi=\pi$


Exhibit 13. Percentage Recognizing Pun, Age 13



This exercise was administered to two age groups--9-yearolds and 13-year-olds. Only the first two parts of the exercise are being released at this time. In order for a response to be correct the student had to underline the word "double" $\because 6$ the phrase "double your money" in the passage; if the student underlined anything else in addition to these, or if he circled $A$, or wrote "pun" at the end of the sentence, his response was considered "incorrect - partial;" and if he underlined anything eise or wrote "none," his response was termed "incorrect."

Results for 9-Year-Olds
Only $21 \%$ of the 9 -year-olds recognized a pun in the phrase "double your money." More than three-fourths of them either did not respond at all or responded incorrectly. Of the incorrect
responses ( $66 \%$ ), about $6 \%$ were considered "partial", and the rest were clearly incorrect.

Exhibit 12 presents the group results for Part $A$ of this exercise. The highest group percentage of success appeared in the extreme affluent suburb size and type of community category: almost one-third of the children in this group responded correctly, whereas only one-fifth of all the 9 -year-olds did so. The percentages of the 9 -year-olds in the post high school parental education group (27\%) and the small city STOC group (26\%) who recognized the pun, were also notably higher than the national figure.

The lowest percentage of success occurred for students in the extreme inner city STOC category: only 7\% answered correctly. The Black and rural and no high school groups achieved percentages only slightly higher, indicating that only one child in ten--in each group--successfully demonstrated recognition of the pun. The percentage of Southeastern students recognizing the pun was also significantly beneath the national figure at $16 \%$.

## Results for 13-Year-Olds

Forty-four percent of the 13 -year-olds indicated recognition of the pun. About $6 \%$ gave incorrect, but "partial" responses, indicating they might have recognized the pun. The remainder either answered incorrectly or did not answer at all.

The group results presented in exhibit 13 demonstrate that the highest percentage of success was posted by the affluent suburb STOC group--it was almost 16 percentage points greater than the national figure. Percentages for 13-year-olds in the post high school and rural categories were 10 points above the national figure. A greater proportion of 13-year-olds from the Central region responded correctly than did so in any of the other regions and, as was true at the age of 9 , Whites and females also registered figures above the national percentage: $48 \%$ for the former gcoup, $49 \%$ for the latter.

About one Black 13 -year-old in five gave a correct response to this exercise. One-third of the teenagers in the rest of big city STOC category and one-third of those in the no high school parental education group successfully indicated recognition of the pun. 'hese proportions were significantly lower than the national proportion. The percentage of males who were successful on this exercise was 5 poin $=s$ lower than the national figure and 10 points lower than the percentage of females who were successful.

## Age Comparisons

The percentage of 13 -year-olds who answered correctly was twice the percentage of 9-year-olds. The results for various subgroups do not, however, reflect a doubling of percentage in all cases. Southeastern 13-year-olds, for instance, performed better (relative to the nation) than their 9-year-old peers; and Central students, who were near the national figure at age 9, emerged significantly above it at age 13 .

The percentage of success for 13 -year-olds in the rural size and type of community category was five times the percentage posted by the same group at age 9. The same phenomenon appears in the results for extreme inner city students, who had the lowest percentage of success at age 9 but did not differ significantly fror. the nation as a whole at age 13. The percentage of 13 -year-old Blacks who indicated recognition of the pun was about three times the percentage of 9 -year-old Blacks, while nationally, as we have noted, the figure for 13 -year-olds only doubled the figure for 9 -year-olds.

Part B
Exhibit 14. Percentage of Correct Responses, Age 9


Exhibit 15. Percentage of Correct Responses, Age 13


Since there is no pun in this passage, the correct response was to write the word "none" at the end of the sentence. If a student underlined any word or wrote the word "pun" at the end of the sentence, his response was considered incorrect.

## Results for 9-Year-Olds

Almost half of the 9-year-olds responded correctly; 39\% responded incorrectly, and $13 \%$ did not respond at all.

Exhibit 14 reveals that only two groups were significantly below the national level of performance. Sixty percent of the children whose parents have had no high school either did not answer or answered incorrectly. And the percentage of males who indicated there was no pun in the passage was $6 \%$ below the percentage of females and significartly off the national figure.

The highest percentage of success on this passage was registered by the extreme affluent suburb group- $-56 \%$ of the children so classified responded correctly. Girls were also significantly above the national level.

## Results for 13-Year-Olds

Two-thirds of the 13-year-olds indicated there was no pun in this passage (exhibit 15). The proportion was higher for several groups, however. Three-fourths of the teenagers in the extreme affluent suburb group and in the post high school category responded correctly. Two other groups--Whites and females--posted percentages notably greater than the national figure of 69\%.

The percentage of success for Blacks was 13 points beneath the national percentage. But an even smaller proportion-49\%-answered correctly in the no high school parental education category. Thirteen-year-old boys performed somewhat less well on this enercise than girls did.

## Age Comparisons

Whereas only three out of every six 9-year-olds responded correctly to this passage, four out of six 13-year-olds appeared able to do so. The percentage of success for each group was higher at age 13 than at age 9. But each group maintained about the same relu-ıon to the national percentage of success. That is, groups which performed above the national figure at age 9 also did so at age 13, groups which were near the national figure at age 9 were also near it at age 13, and so on. A notable exception to this tendency appeared with regard to the rural group. At age 9 , students in that category registered a percentage of success which was half the national percentage; at age 1.3 , the rural students were significantly above the nationai level of performance.

Exhibit 16. One or More Parts of R109 Correct, Age 9


Exhibit 17. One or More Parts of R109 Correct, Age 13

| SDIF | PERCEMT |
| :---: | :---: |
| PROH | CORRECT |
| mation | RESPOISE |
| x*5**x |  |



As exhibits 16 and 17 indicate, $73.4 \%$ of the 9 -year-olds, and $90 \%$ of the l3-year-olds correctly answered at least one of the parts of exercise Rl09.

At both age levels, females outperformed males, Whites were above and Blacks below the national figure, and there were no significant regional effects. At neither age did the no high school group differ significantly from the national figure, though the post high school groups had appreciably higher than national percentages. The extreme inner city category emerged 10 points behind the nation at age 9 but at age 13, its results were not different from the national results.

Exhibit 18 illustrates the percentages of students at both age levels who correctly answered 1, 2, 3, 4, and all 5 parts of the exercise. Clearly, more 13-year-olds were able to answer 3,4 , or 5 parts of the exercise than 9 -year-olds.


Ages 17 and Adult Objective IIB

I am going to read you a number of sentences. I will read each one twice; as I read each sentence, read it to yourself. Some of the sentenc. contain a pun, that is, a word that has two meanings at the same time, and makes the sentence mean two different things at the same time. He:.e is an example:

Letters to the moon will have to go by spatial delivery. SPATIAL means "through space," but it also sounds like SPECIAL, so that the sentence means that the letters will have to be delivered through space and that the letters will have to be delivered in a special way. On your paper draw a line under SPATIAL in order to indicate that it is a pun. After you listen to each sentence, decide which word or words are the puns in that sentence, and draw a line under them. Some of the sentences will have no puns in them. If you think there is no pun, write the word NONE aiter the sentence.

Released Parts
A. You've got a very good nose as noses run.
D. Always spread newspapers out in front of the fireplace so if any sparks fly out they won't get on the rug.

NOTE: At age 17 the words "fly" and "out" were run together mistakenly to create "flyout."

National Resulits

| Part |  | No Response | Correct <br> Response | Incorrect Response | $\begin{aligned} & \text { I Don' } \ddagger \\ & \text { Know } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A. | Age 17 | $6.0 \%$ | $47.6 \%^{\circ}$ | 46.38 |  |
|  | Adult | 4.0 | 41.9 | 53.4 | + |
| D. | Age 17 | 12.98 | 54.3\% | $32.6 \%$ | + |
|  | Adult | 5.0 | 67.6 | 26.6 | 1.08 |

Part A

Exhibit 19. Percentage Recognizing Pun, Age 17
SDIFT PERCEMT
PROM CORRECT
MATIO PESPOMSE
NATION RESPONSE
$=\pi===========$.


100
$\begin{array}{cc}\cdots-- & 47.6 \\ & \\ -12.10 & 35.5 \\ -9.5 & 47.1 \\ 4.0 & 51.6 \\ 4.90 & 52.5\end{array}$
$\begin{array}{rr}9.3 & 47.8 \\ -0.3 & 47.3\end{array}$

|  |  |
| ---: | ---: |
| $-28.9 *$ |  |
| $4.3 *$ | 18.7 <br> 51.9 |

$\begin{array}{ll} & \\ -23.5 * & 24.1 \\ -20.8 * & 25.8 \\ -0.6 & 47.0\end{array}$
15.3. 62.0
$\begin{array}{cc}-6.2 * & 41.4 \\ -1.7 & 45.9 \\ -0.4 & 47.1 \\ 7.8 . & 55.4\end{array}$

Exhibit 20. Percentage Recognizing Puns, Adults


| --- | 41.9 |
| :---: | :---: |
| -14.7* | 27.1 |
| $6.0 \cdot$ | 47.9 |
| 1.9 | 43.8 |
| 1.7 | 43.6 |
| 1.7 | 43.6 |
| -1.7 | 40.2 |
| -27.70 | 14.2 |
| 3.5* | 45.4 |
| -12.8* | 29.0 |
| -9.7* | 33.2 |
| $4.6 *$ | 46.5 |
| 20.9* | 62.7 |



The directions for answering these exercises differ somewhat from the directions to R109A and B, in that they employ a different example. Though different exercise directions can sometimes change results, it is impossible to determine whether or not they changed them in this instance.

Results for 17-Year-Olds
Fewer than half of the l7-year-olds successfully indicated that they recognized a pun in this passage; $46 \%$ responded incorrectly and $6 \%$ simply did not respond.

Exhibit 19 reveals that percentages of success for some groups did go over the $50 \%$ mark, however. Sixty-three percent of the l7-year-olds whose parents have had more than a high school education recognized the pun on the word "run." Northeastern teenagers and 17-year-olds classified as White also registered percentages significantly above the national figure.

The performances of several other groups differed considerably from the overall performance of l7-year-olds in general. Twelve percent fewer Southeastern students responded correctly than did so nationally. It is also clear that teenagers in the lower parental education categories did not respond correctly as often as most l7-year-olds did; the rate for the no high school group, for instance, was 23 points below the national rate, and for the some high school group it was 21 points back.

The greatest difference from the national figure appeared with regard to the Black teenagers, whose percentage of success was $29 \%$ below the national mark of $48 \%$, indicating that only one in five responded correctly. Though nationally only $6 \%$ of the 17 -year-olds gave no response, among Blacks, $18 \%$ gave no response at all to the passage.

Overall there was a $44 \%$ difference between the lowest and the highest group percentage of success on this exercise.

## Results for Adults

About two out of every five adults indicated that there was a pun on the word "run" in this passage; more than half responded incorrectly to the exercise.

Exhibit 20 indicates that four groups responded to the exercise with better results than all adults together achieved. The post high school parental education group registered a percentage 21 points greater than the national figure of $42 \%$, while the graduated from high school group percentage was 5 points greater.

Western results were 6 points above the national figure, and the percentage of success for Whites was 3 points up.

Significant deficits ranged from -28\% (Blacks) to $-9 \%$ (the some high school group). The Southeastern group percentage was 15 points off the national figure and the no high school group was down 13 points. There were no appreciable male-female differences or effects.

## Age Comparisons

Fewer than half of the people at both age levels indicated recognition of the pun in this passage. And in several groups the proportion was one-third or less.

In most of the variable categories 17-year-olds posted higher percentages of success than did adults. But in the parental education categories the situation was different: adults in the lower two categories answered correctly more of ten than the 17-year-olds, and adults in the upper two categories answered correctly as often as the l7-year-olds. Apparently parental education was less of a factor in adult performance than it was in teenagers'.

Part D
Exhibit 21. Percentage of Correct Responses, Age 17


Exhibit 22. Percentage of Correct Responses, Adults


## Results for 17-Year-Olds

A smaller percentage of 17-year-olds than 13-year-olds (see exercise Rl09B) indicated that there was no pun in the passage. In fact, only half of them did so, a proportion similar to the one reported for 9-year-old results on exercise R109B.

There are two explanations for this unusual performance by 17-year-olds, who always do better than the other age groups. Their exercise instructions differ from those given to 9- and 13-year-olds, as noted earlier. More importantly, there was a printing error in their passage which joined the words "fly" and "out" into a single word. This did not, of course, create a pun. But it did produce a distractor (many 17-year-olds underlined it) which people in the other age groups did not have to contend with. For this reason, it is impossible to compare these results with those obtained by the 9-year-olds, 13-yearolds, and adults.

Exhibit 21 reveals that the highest group percentage of success occurred in the Northeast regional group. Sixty-two percent of the 17 -year-olds in that category indicated there was no pun in the sentence. Significant above-national percentages also occurred for the post high schcol parental education group (60\%) and White 17-year-olds (56.5\%).

Black 17-year-olds registered the greatest difference from the national percentage of success, a deficit of 16 percentage points. Seventeen-year-olds in the lower parental education categories also differed significantly from the nation with percentages of success 7 to 12 percentage points below the national figure. The performance of the Southeastern students, though only 6 points below the national level, was also notably different from the performance figures for the other regional groups.

## Results for Adults

Slightly more than two-thirds of all the adults taking the exercise indicated there was no pun in the passage. However, three-fourths of the adults in the Northeastern states accomplished the same thing. White adults fared somewhat better than all adults, since their $70 \%$ figure was notably above the national percentage; so too did adults in the highest parental education category, $73 \%$ of whom answered correctly.

There were significant deficits for the Southeast and West regions ( $-9.6 \%$ and $-5 \%$, respectively), but neither vas as great as the Black deficit of almost $19 \%$. People in the lower parental education categories did not, in this exercise, demonstrate either a deficit or an advantage; their performance did not differ from the overall performance of adults in general.

The results discussed so far in this chapter are for released exercises only. In order to present a more complete picture of performance on exercises oi this type, we are supplementing the released data with the results of both released and unreleased exercises in the following discussion.

## Summary Results for 9-Year-Olds

Nine-year-olds responded to five pun exercises, two of which we have already discussed. Of the five passages, three actually included puns and two did not.

The national percentages of success were $7.7 \%, 21.4 \%, 26.3 \%$, 30.6\%, and 47.9\%.

## Summary Results for 13-Year-Olds

Thirteen-year-olds responded to the same five pun exercises given to the 9 -year-olds. The percentages of correct responses were $33.5 \%, 37.8 \%, 43.8 \%, 51.9 \%$, and 66.6\%.

Summary Results for ${ }^{17-Y e a r-O l d s}$
Seventeen-year-olds responded to four pun exercises, two of which have already been discussed. Of the remaining two, one passage contained a pun, the other did not.

The percentages of correct responses for 17-year-olds were 16.3\%, 47.6\%, 54.3\%, and 59.9\%.

Summary Results for Adults
Adults responded to the same four pun exercises taken by the 17 -year-olds. The percentages of correct responses were $20 \%$, 41.9\%, 66.4\%, and 67.6\%.

Summary Results for All Ages
As the results presented in this chapter indicate, many more people at every age level know when there is not a pun in a passage than can identify one when it is there. when there is no pun there are few significant differences from the national percentage--in fact, there were no significant differo ces in the size and type of community subgroups. However, when there is a pun, the rural, extreme inner city and rest of big city
groups show percentages of success significantly below the national percentage.

Though there are very few exercises upon which to generalize, it would appear that the older one gets the better one does on exercises of this sort. However, the results for 13-year-olds, 17-year-olds, and adults do not differ dramatically; this indicates that the particular skill involved in responding well to these exercises is undeveloped in the 9 -year-olds but developed to about the sa.... degree in the older students and young adults.

## COMPREHENSION OF METAPHORS

A metaphor is an implicit comparison of two dissimilar things. It is not an unusual figure of speech, for our language is replete with metaphorical words (e.g., brutal, calloused, Herculean, shady) and expressions (e.g., dog days, the ship of state, gettin' it on, or sunset years). It is impossible to speak for any length of time and not use metaphors.

Because they infinitely extend the range of language, metaphors have always been the stock-in-trade of poets. By comparing two things in his or her own way, the poet can make each appear in a new light; for the reader, this can mean new dimensions of experience, a broader range of vision, the transformation of the ordinary into the extraordinary. And, for both poet and reader, the imaginative juxtaposition of apparently unrelated things can afford insights incommunicable by any other means.

It goes without saying, then, that comprehension of metaphors is essential to the understanding of works of literature. The exercises discussed in this chapter were designed to determine whether or not people could comprehend metaphors on a very elementary level--that is, could they see what two things are being compared and could they recognize what quality the two parts of the metaphor share that justifies the comparison. These questions represent oniy one way of determining how well people understand metaphors, but the information they provide is a useful indicator of skill in dealing with imaginative language.

```
All metaphor exercises were introduced by the following instructions:
```

You are going to be asked some questions about sentences or lines of poetry. In each selection a writer has made a comparison between two things in order to make the meaning of one of them very clear and vivid. The questions will ask you to explain the comparison. Study the example below.

## Example:

The ship plowed the seas.

This ship was probablyat anchor.under water.
moving steadily.

I don't know.

The comparison between the ship and plowing suggests that the ship was making a line in the water the way a plow makes a line or a furrow in the dirt. It suggests the straight movement of a ship over the surface of the sea. The answer to the question is "moving steadily," so you would fill in the oval beside "moving steadily," as shown above.

There will be two questions about each selection. Study the sentences or lines of poetry carefully and then choose the best answer to each question. Fill in the oval beside the answer you have chosen.

Ages 9, 17, Adult Objective IIB
A. Hope is a thing with feathers cheleted due to copyright restrictions. And never stops at all.*


[^3]Exhibit 23. Percentage Correct on Both Questions, Age 9 DIPP PTRCENT
PROM CORRECT


Exhibit 24. Percentage Correct on Both Questions, Age 17


Exhibit 25. Percentage Correct on Both Questions, Adults


The first part of the exercise asks for a recognition of the comparison Emily Dickinson makes in these lines. The best answer is "a bird." Hope is not being compared to "the soul," and it is not being compared to an Indian. The second question requires some understanding of the qualities which unite both bird and hope in these lines. The answer is that both are meant to be "cheerful and dependable."

## Results for 9-Year-Olds

On the first question, $47 \%$ of the 9 -year-olds answered "a bird" and 41\% answered "the soul." On the second question, three-quarters of the students responded correctly but about 10\% chose "silent and shy". More than a third of the 9-year-olds (37\%) answered both questions satisfactorily.

The group results displayed in exhibit 23 reveal significant differences from the national level of performance. Above that level were the percentages of successful students in the Northeast ( 5 points above the national figure), in the post high school parental education category ( 8 points above), and in the
extreme affluent suburb STOC category ( 10 points above). The percentage of success for Whites was 2 points greater than the national figure, and for females it was almost 5 points. The male-female difference was almost $10 \%$.

Twenty-eight percent of the Southeastern students answered both questions correctly. This percentage was 9 points below the national figure of 37\%. About one-fourth of the Black 9-yearolds and one-fourth of those in the extreme inner city category answered both correctly--again, a smaller-than-national proportion. A somewhat higher percentage of students in the no high school parental education category answered both correctly, but the figure--27.5\%--was still almost $10 \%$ below the figure posted by all 9-year-olds.

## Results for 17-Year-Olds

More than three-quarters of all the l7-year-olds correctly responded to both parts of the exercise (exhibit 24).

Greater proportions did so in the Central regional group (82\%), the "fringe" size of comnunity group (81\%), and the post high school parental education group (84\%). The percentages for Whites and for females--both 79.18--were also significantly higher than the national percentage of success.

The performance of the Southeastern regional group was notably different from the national performance: its percentage of success was 7 points below the national figure. For Blacks, the difference was 16 percentage points and for the two lower parental education groups it was around 10\%. Males were somewhat less successful on this exercise than females, the difference between them being about $5 \%$.

## Results for Adults

Nearly two-thirds of the adults answered both questions correctly. As exhibit 25 reveals, however, the proportion was greater for some groups. Three-fourths of the adults in the post high school parental education category answered correctly, and about 71\% of those in both the graduated from high school and medium city groups. The percentage of White adults as well was notably greater than the national figure.

Significant deficits (relative to the national percentage of success) occurred in the lowest parental education category and in the big city size of community group. But the lowest percentage in any group was the $46.2 \%$ figure which appeared for Black adults.

## Age Comparisons

People at all three age levels appeared to have little difficulty with the second question. At least three-quarters of them answered it correctly. But fewer than half of the 9-year-olds responded correctly to the first question, which called for explicit recognition of the comparison which constitutes the metaphor.

The percentage of 17-year-olds who answered both questions correctly was more than twive the percentage of 9-year-olds. In general, this doubling was roughly consistent from group to group across the two ages; however, the percentage of 17-year-old Blacks answering correctly (61\%) was more than twice the percentage of 9-year-old Blacks doing the same thing (25.4\%).

Females were successful more often than males at ages 9 and 13. but at the adult level this advantage disappeared.

There were interesting regional changes from age level to age level: Northeastern 9-year-olds demonstrated a significant advantage over all 9-year-olds; at age 13, it was the Central region which dominated; and at the adult level, all regions performed at the national level.

## Exercise R113

Ages 9, 13, 17
Objective IIB

Age 9 Age 13 Age 17

| $11.7 \%$ | $3.3 \%$ | $2.7 \%$ |
| :--- | :--- | :---: |
| 63.4 | 81.5 | 85.2 |
| 16.9 | 12.1 | 9.8 |


| 6.8 | 2.6 | 2.3 |
| :---: | :---: | :---: |
| 1.2 | + | + |

The fog comes
deleted due to
copyright restrietuins
and then moves on.*
A. The cat's feet are compared tothe rain.

- slow moving mist.
$\infty$
the tops of buildings.I don't know.
No response
B. The fog is meant to be seen as

| $10.8 \%$ | $3.7 \%$ | $1.6 \%$ |
| :--- | ---: | ---: |
| 11.6 | 13.8 | 7.3 |
| 70.3 | 79.9 | 89.7 |loud and clumsy.

$B$
majestic and proud.
$\rightarrow$
quiet and stealthyI don't know.
No response
*"Fog" from Chicago Poems by Carl Sandburg. Reprinted by permission of Holt, Rinehart and Winston, Inc.

Exhibit 26. Percentage Correct on Both Questions, Age 9


Exhibit 27. Percentage Correct on Both Questions, Age 13


Exhibit 28. Percentage Correct on Both Questions, Age 17
RDIFP PFRCENT
NATION RESPONS:


Since Carl Sandburg's "Fog" is widely taught in English classes, the results of this exercise should be of some interest. The first question calls for identification of the two things being compared in the metaphor. It would have been more accurate to ask, "The fog is being compared to..." but the poem makes the answer self-evident. Consequently the question was rephrased under the assumption that if one knew both terms of the comparison, he could answer correctly, but if he did not, the poem would not provide an obvious tipoff.

The second question asks for an identification of the quality of cat's feet which sustains the comparison.

## Results for 9-Year-01ds

In answer to the first question, about one child in six indicated that the cat's feet are compared to "the tops of buildings." Another $12 \%$ chose "the rain," a better answer.

Eight percent either did not answer or checked "I don't know," and $63.4 \%$ selected "slow moving mist," the best response.

On part $B$, about $11 \%$ indicated that the fog is meant to be "loud and clumsy," and $12 \%$ selected "majestic and proud." Seventy percent correctly chose "quiet and stealthy."

Slightly fewer than half of the 9-year-olds (48.9\%) answered both parts of the exercise correctly.

Exhibit 26 reveals that there were no significant regional or sex differences, but there were notably different results in the other groups. Fewer than a third of the Blacks and the students in the extreme inner city group answered both questions correctly. Though the proportions in the two lower parental education categories were greater than this, they were still smaller than the national proportion.

Higher than national percentages occurred in two size and type of community categories and in the post high school parental education group. The percentage of success for the extreme affluent suburb group was $61 \%$ and for ihe suburban fringe group it was 58\%. A significantly greater percentage of Whites also answered both successfully.

## Results for 13-Year-Olds

In answer to part $A, 12 \%$ of the 13 -year-olds chose "the tops of buildings," $3 \%$ selected "the rain," and $81.5 \%$ correctly selected "slow moving mist." The rest claimed they did not know what the cat's feet were being compared to.

About $14 \%$ of the 13-year-olds indicated they thought the fog is meant to be seen as "majestic and proud." Four percent chose "loud and clumsy," and $80 \%$ chose "quiet and stealthy." Slightly over two-thirds (68.3\%) answered both parts correctly.

In some groups the proportion of students answering both questions correctly was near three-fourths: the percentage of Central students was 73\%; for the affluent suburb group, it was 76\%; for the post high school group, it was 74\%; and for Whites, it was 72\%. The percentages in all four cases were significantly above the national figure.

Notably low percentages of success occurred in only three groups. The percentage of Southeastern students answering correctly was 11 points lower than the national figure; in the no high school group, it was 9 points lower. Only half the Black

13-year-olds selected the correct answer to both parts of the exercise.

## Results for 17-Year-Olds

In answer to part $A$, almost $10 \%$ of the 17-year-olds indicated that the cat's feet are compared to "the rain." A few solected "the tops of buildings" or "I don't know," and the rest. -85.2\%--chose "slow moving mist."

Very few 17-year-olds thought the fog was meant to be seen as "loud and clumsy." Seven percent selected "majestic and proud," but almost $90 \%$ correctly chose "quiet and stealthy." Answering both parts correctly were 81.98 of the teenagers.

Exhibit 28 reveals that at least three-quarters of the people in all subgroups answered both questions successfully. The highest percentages of success appeared in the post high school parental education group (85.3\%) and for Whites (82.7\%).

Black 17-year-olds and persons in the two lower parental groups were significantly below the national figures, though the percentages in those groups were within 7 points of the national figure.

## Age Comparisons

From age to age there seemed to be a steady increase in percentage of success. Perhaps this is due co an increasing ability to comprehend metaphors; perhaps the older people do better because they have been taught this poem in school-probably, both factors are responsible. Whatever the reason, differences between various subgroups are far less extreme at age 17 than at the other two ages.

At ages 9 and 17 there were no regional differences from the national figure; at age 13, the Central region showed an advantage and the Southeast a deficit.

The Black effect remained the same at ages 9 and 13, but it dropped considerably at age 17.

Finally, though results for males and females did not differ appreciably at the younger ages, they did at age 17--and, for once, the males outperformed the females.

Ages 13, 17, Adult Objective IIB


Exhihit 29. Percentage Correct on Both Questions, Age 13


Exhibit 30. Percéntage Correct on Both Questions, Age 17


Exhibit 31. Percentage Correct on Both Questions, Adult


The first question about the passage requires people to recognize the comparison upon which the metaphor rests. However, the choices offered the respondents were not clear-cut. Slang could conceivably be likened to "a criminal" by students who have always been told that it shouldn't be used; there is much less merit in the answer "a foreigner." The desired answer was "an honest laborer." Admittedly, the phrase doesn't necessarily imply honesty, especially to younger people who might not re:cognize this dated expression. But this answer was the best of the three.

The second question probes for the speaker's attitude about slang. One's answer to the first question might determine the answer to the second, for it is unlikely the speaker would compare slang to something honest and not "like" slang; like-wise, it is possible that, having chosen "a criminal" in answer to the first part of the exercise, one might well feel compelled to select the third answer to part two, indicating that "slang should never be used."

Results for 13-Year-olds
In response to the first question, $20 \%$ of the 13 -year-olds indicated that the phrase describes "a criminal." Eight percent
selected "a foreigner," 4\% apparently didn't know the answer, and 68.f, 各 selected "an honest laborer."

On part 2, $26 \%$ indicated the speaker of the sentence probably "thought slang shouid never be used," while $10 \%$ selected the second answer and $8 \%$ chose "I don't know." Fifty-six percent selected the first choice.

Clearly, a substantial proportion (more than one-fifth) of these teenagers felt the phrase reflected a negative attitude about slang. We do not know if they selected the negative answers because they have been told that slang is undesirable, because they themselves feel that it is undesirable, or because they honestly felt that they were choosing the best answer.

Forty-four percent of the 13-year-olds chose the desired answer on both parts of the exercise. As exhibit 29 reveals, the percentiges of success in several variable categories were significantly lower than the national percentage. In the no high school category, it was $35 \%$, among Blacks it was 30\%, and in the Southeast it was $38 \%$.

On the positive side, results for Whites differed significantly from the national results, though there were only 3 percentage points between the two figures. More than half (53\%) of the children in the post high school parental education category also selected both correct answers. The percentage of success for males was 4 poi: :s above the national figure and a notable 8 points above the figure for females. This difference in results is attributable to the fact that more females than males selected the answers which put slang in an unfavorable light. Perhaps this indicates that 13 -year-old girls are more sensitive than boys to the "impropriety" of slang.

## Results for 17-Year-01ds

In answer to part one, about 98 of the 17 -year-olds replied that slang was likened to "a criminaI." A scant 3\% selected "a foreigner," $4 \%$ didn't know the answer, and $85 \%$ chose "an honest laborer."

On part 2, about $15 \%$ indicated they thought the speaker disliked slang, 98 apparently believed the speaker never used slang, and 8\% selected "I don't know." Sixty-eight percent selected the first and best answer.

Sixty-one percent of the 17-year-olds chose the best answer to both questions on the exercise.

Percentages of success were somewhat higher for Whites (64.3\%) and for people in the post high school parental education category (69\%).

The percentage of Black 17-year-olds answering both questions correctly was almost 20 points below the national figure. Significantly lower than national percentages also appeared in the two lower parental education categories (48\% and 55\%), and the Southeast regional group (56\%).

Results for Adults
Ninety-four percent of the adults likened slang to "an honest laborer" on part 1 of the exercise. This percentage of success--greater than those posted by the other age groups--may simply be due to the adults having more positive associations with or broader experience of, labor; but it may also be a result of their greater familiarity with a stereotype (the honest laborer who does his duty without complaint).

Sixty-eight percent of the adults successfully answered both parts of the exercise. The percentages were significantly higher for the post high school parental education group (84\%), the Western adults. (76\%), and the Whites (71\%).

A notably low proportion of Blacks (two-fifths) answered both parts correctly; this was 27 percentage points below the national figure. And slightly over half (55\%) of the mople in the Southeastern regional group and no high school parental education group were successful on the exercise.

## Age Comparisons

Apparently, the older one is, the better he or she is likely to do on this exercise. Certainly there is a steady increase in national percentage of success as one looks at the results for all three ages. Accompanying this rise is a decline in percentages selecting answers which indicate a negative view of slang. One-fourth of the 13-year-olds selected the negatire answer to part 2; at age 17, the proportion was close to oneseventh; and at the adult level it was about one-ninth.

At all three age levels, smaller percentages of southeasterners answered koth questions correctly than did people in any other region. The figures for Blacks and for the no high school groups were also uniformly low compared to the national figures. At no age did more than two-fifths of the Blacks answer both questions correctly.

Females did not demonstrate the advantage they seem to have on most of the other exercises in this report. In fact, males outperformed them at age 13 and at the other ages there was no difference in their percentages.

Age 13
Objective IIB

```
A. There is something in October sets the Gypsy blood astir;
We must rise and follow her, When from every hill of flame She calls and calls each vagabond by name.
1. "Hill of flame" describes
```

| $21.2 \%$ | $\longrightarrow$ fire. |
| :--- | :--- |
| 14.8 | $\longrightarrow$ |
| 61.0 | gypsies. |
| 2.9 | autumn trees. |
| + | I don't know. |
|  | No response |

2. Which of the following could BEST be substituted for "hill of flame" to show what the author means?

| $29.7 \%$ | Gypsy campfire |
| :--- | :--- |
| 8.0 | $\longrightarrow$ |
| 60.1 | October sunshine |
| 2.1 | Brightly colored trees |
| + | I don't know. |
|  | No response |

Exhibit 32. Percentage Correct on Both Questions, Age 13


In answer to the first question, $21 \%$ of the 13-year-olds selected the first choice, "fire." This is the most obvious answer (since "flame" and "fire" are closely related) and it would probably appeal to people who have not read the passage carefully. Fifteen percent indicated they thought "Hill of Flame" describes "gypsies." Three percent marked "I don't know," and 61\% correctly chose , itumn trees."

The second question probes for clarification of the first. It asks the student to identify the quality of autumn trees that justifies their comparison to lames. Thirty percent of the 13-year-olds indicated they thought "Gypsy campfire" coin_d is substituted for "hill of flame;" only $8 \%$ selected the slightly more plausible "October sunshine," while $2 \%$ marked "I don't know." Sixty percent correctly selected "Brightly colored trees" as the phrase which could best be substituted for "hill of flame." Fifty-five percent of the 13 -year-olds correctly responded to both questicns about the metaphor.

Exhibit 32 reveals that a significantly greater percentage (7\%) of Northeastern students correctly answered both questions than did so throughout the nation. The percentage of White students who accomplished the same thing ( $60 \%$ ) was also signif-
icantly greater than the national figure. The greatest percentage of success, however, appeared for the post high school parental education group: almost two-thirds of the students in that group correctly answered both questions.

Though on other exercises the percentage of success for the medium city group seldom differs notably from the national figure, it did on this exercise. Fifty-nine percent of the teenagers in this group answered both questions correctly, a figure higher than any other in the size and type of community categories.

The percentage of success for Blacks was 25 points beneath the national percentage. Nota':iy lower than national figures also appeared in the two lower parental education categcries ( $39 \%$ for the no high school group, $44 \%$ for the some high school group) and for the Southeastern regional group (46\%).

## Summary Results for All Metaphor Exercises

The results discussed so far in this chapter are for released exercises only. In order to present a more complete picture of performance on exercises of this type, we are supplementing the released data with the results of both released and unreleased exercises in the following discussion.

## Summary Results for 9-Year-Olds

Nine-year-olds answered six questions about three metaphors. Four of the six questions have been discussed in this chapter. Their percentages of success were 47.2\%, 63.4\%, 70.3\%, 75.5\%, 85.6\%, and 90.7\%. Nine-year-old males and children in the medium city group did unusually well. (given their performance on all metaphor exercises) on the "Fog" exercise. The no high school group turned in an unusually low percentage on the same exercise.

## Summary Results for 13-Year-Olds

Thirteen-year-olds were presented with 10 questions about 5 metaphors. Two of the questions were also offered to 9-yearolds, and six of the questions have been discussed in this chapter. Their percentages of success were: 55.7\%, 60.1\%, 61\%, 64.9\%, 68.6\%, 71.2\%, 72.2\%, 79.3\%, 79.9\%, and 81.5\%. Their median percentage was about 70\%.

Relative to their performance on all metaphor exercises, 13-year-old Biacks did unusually well on the second part of the "Slang" exercise discussed earlier. The same was true of the no high school group. Youngsters in the post high school parental education category did unusually well on the first part of the "Hill or Flame" exercise, compared to their performance on all the exercises.

Summary Results for 17-Year-Olds
Seventeen-year-olds answered 10 meiaphor questions about five metaphors. There was a considerable range in their percentages of success: $52.0,67.6,84.0,85.2,85.2,85.5,87.5$, 89.7, 93.1, and 94.5. The 67.6 figure is the result for the second part of the "Slang" metaphor (R115). Obviously this figure (along with the $52 \%$ one) is unusually low, relative to the other results achieved by 17-year-olds.

Male l7-year-olds registered an unusually high percentage of success on the first part of the "Siang" exercise; females were unusually low on that part, relative to their performance on all the metaphor exercises.

## Summary Results for Young Adults

Adults answered 8 questions about four metaphor exercises, all of which were also administered to l7-year-olds. Their percentages of success also covered a considerable range: 59.4\%, 64.1\%, 76.5\%, 81.0\%, 87.6\%, 92.7\%, 93.9\% and 95.1\%.

Relative to their performance on all metaphor questions, Southeastern and Central adults did unusually well on the second part of the "Hope" exercise discussed earlier (R111). The post high school group did unusually well on the second part of the "Slang" exercise (R115).

Summary Results for All Ages
Over all the exercises, it appears that 9- and 13-year-olds achieved similar results while 17 -year-olds and adults achieved similar results. At all four age levels there were exercises of unequal difficulty, so there were both high and low percentages at each age level.

Regionally, only the Southeast differed substantially from the national level of peiformance, the other three regions performing about as the nation did.

Females succeeded more often than males at age 9, but demonstrated no overall advantage at the other age levels.

## CHAPTER 5

FORM SIMILARITY EXERCISES

In a work of literature, language operates within formal constraints. A writer chooses to organize his work according to certain traditional patterns, each of which has its own special virtues, possibilities, and effects upon readers.

Understanding these patterns a reader can better understand a work: he can recognize its parts and appreciate the ways in which they interact; he can see the work in relation to other works which employ similar techniques or conventions; and he can see the work both as art and as artifact, a product not of some mysterious "spontaneous creativity," but of painstaking labor.

The exercises which dealt with generic distincitions assessed recognition of major forms. Each of them presented the respondent with four passages and asked that he (1) indicate which two were similar and (2) identify the generic term common to both of them.

All the form similarity exercises were introduced by the the following directions:

You are going to be asked a question about four pieces of writing. The four pieces may all be about the same thing, or they may be about different things. But TWO of them are alike in the type of writing they are, that is, in the way they are written. you are to pick the two that are alike and tell what they are. Look at this example.
A. Dear Sir:

Please send me two boxes of your special canary songfood, "Betta-Tweet." I am sending you 50 cents.

Yours very truly, John Smith
B. A birdie with a yellow bill Hopped upon my window sill, Cocked his shining eye and said "Ain't you 'shamed, you sleepy-head!"
C. Dearest Mother,

I am having a wonderful time at camp! Yesterday I found a baby robin that had fallen from its nest. It took a worm from my hand.

Love, Helen
D. Charles reached cown and picked up the trembling bird. It was sick, he thought, and he wondered how he could take care of it. "I'll ask my mother," he said to himself, "she'll know."

| Folk tales | I 3tters |
| :--- | :--- |
| Poems |  |
| I don't know. |  |$\quad \rightarrow$ plays

All of them are about birds; the first piece of writing, $A$, is a letter; the next one; $B$, is a poem; $C$ is a letter; and $D$ is part of a story. But $A$ and $C$ are the TWO which are alike. They are both letters, so the ovals beside them are filled in. And, because both $A$ and $C$ are examples of letters, the oval beside "letters" is filled in. Now you do the next one in the same way.

All ages
Objective IIB

- A. Everything is black and gold, deleted due to cepyright
Yellow candlelight.*
$\int$ B. The children went down the stairs and across the moonlit porch to the yard where the woman held the door open for them. pedro saw nothing.
C. Mother: "John!"

John: "Yes, mother."
Mother: "Come inside this minute! You'll catch your death of cold."

John: "It's not cold, mother, the sun is shining."
D. A silver-scal.ed Drajon with jaws flaming red deleted due to copyright resticictinis He hands them back when he sees they are done.**

Which TWO of the pieces of writing above are alike in the way they are written? Fill in the ovals beside the TWO pieces which are alike in the way they are written.

The TWO pieces of writing that you said are alike are examples of which of the choices below? Fill in the oval beside your choice.

| Letter |
| :--- | :--- |
| Ridales |$\quad<$ ilays $\quad \longrightarrow$ stories $\quad$ Poems

© I don't know.
*"Black and Gold" by Nancy Byrd Twiner. From Child Life.
**"The Toaster" by William J. Smith. Reprinted by permission of Little, Brown and Company.

## National Results

| $\frac{\text { Age } 9}{71.3 \%}$ | $\frac{\text { Age 13 }}{73.8 \%}$ |  | Age 17 |
| :--- | :---: | :---: | :---: |
| 62.3 | 78.6 | $90.9 \%$ |  |
|  | $86.7 \%$ |  |  |
|  |  | 85.2 | 78.4 |

In addition to the above options (available to 9-year-olds) the 13-year-olds, 17-year-olds and adults were offered (R118): "Fables," "Notices," and "Newspaper articles."

Exhibit 33. Percentage Choosing $A \& D \&$ Poems, Age 9


Exhibit 34. Percentage Choosing A \& D \& Poems, Age 13
 nanlon mesponss



Exhibit 35. Percentage Choosing A \& D \& Poems, Age 17
4DIPP PFPGENT
RIPP PFPCENT
FROM CORQECT NATION RESPONSE
 -.. $\quad 35.2$

|  |  |
| :---: | :---: |
| $-5.4 *$ | 79.8 |
| -0.0 | 85.2 |
| $5.1 *$ | 97.3 |
| -1.6 | 83.6 |



Exhibit 36. Percentage Choosing A \& D \& Poems, Adults


Results for 9-Year-Olds
Seventy-one percent of the 9-year-olds selected passages A and D as the similar passages, but 9\% fewer - 62\% - correctly identified the two as poems.

The group results (exhibit 33) indicate that percentages of success significantly above the national percentage appear in several groups. More than two-thirds of the Central and Northeastern children chose the correct answers, and about threefourths of the children in the extreme affluent suburb STOC category and the post high school parental education category did so. The percentage of success for White children was notably above the national mark, as it also was for girls; in fact, the figure for females was 6 percentage points above the national figure and $12 \%$ higher than the percentage posted by boys.

The percentage of success for Black children was half the national percentage. Forty-six percent of them correctly chose the two similar passages, but one-third of those who did so did not identify the passages as poems. Consequently, only one Black 9-year-old in three completed both tasks successfully. About the same proportion of students in the inner city category did so as well. Also notably beneath the national percentsje were students
in the no high school parental education group, the extreme rural STOC group and the Southeast regional gropp.

Results for 13-Year-Olds
About four out of every five l3-year-olds selected passages $A$ and $D$ and idencified them as poems. The proportion was slightly higher for students in the Central states ( $84 \%$ ), for Whites, (82\%), females (82\%), and l3-year-olds whose parents have at least graduated from high school (82\%).

Significantly lower than national percentages appeared for the Southeast group (73\%), the Blacks (64\%), males, and the students in the no high school parental education category (68\%). These deficits ranged from minus $15 \%$ to minus $6 \%$.

As exhibit 34 indicates, the group results for 13-year-olds were considerably different from the 9 -year-old results. These differences will be covered at the end of the discussion.

Results for 17-Year-Olds
Eight-five percent of the 17-year-olds responded correctly to both tasks in this exercise. And, as exhibit 35 i.llustrates, the same groups were notably above or below the national figure as were at age 13: significantly higher figures appeared for the Central students, the Whites, females and post high school group; significantly lower figures for Southeastern 17-year-olds, Blacks, males and the no high school parental education group.

## Results for Adults

Seventy-eight percent of the adults performed both tasks in the exercise successfully.

As exhibit 36 demonstrates, the group results for the adults were similar to the results for 13 -year-olds, with three exceptions: Western adults posted the highest regional percentage (at age 13 the Central group led the way), the percentage for adult Blacks (52\%) was 12 points lower than the percentage for 13-year-old Blacks, and the adults in the post high school parental education category registered a higher percentage (69\%) than did 13-year-olds in the same category.

## Age Comparisons

The $27 \%$ jump in percentage of success from age 9 to age 13 was not uniform across all subgroups. Figures for some groups were considerably higher at age 13 than at age 9. For instance, the figure for the inner city group at age 13 is more thar twice the percentage of success for the same group at age 9. It went
from $34 \%$ ( 28 s below the national figure) to $75 \%$ (not significantly lower than the national value). The percentage of success for Blacks also doubled, though the Black difference from the national percentage remained significant at age 13.

At all age levels females outperformed males. At age 9 the difference between them was $12 \%$, at 17 it was $5 \%$, but always it was a significant advantage. Interestingly, the difference is less great if one looks only at the results of the first half of the exercise, i.e., the part requiring a choice of similar passages; this would seem to indicate that, in part, the females' advantage lay in their ability to identify the genre correctly.

At all age levels, percentage of success increased as level of parental education increased. Fewer than one half of the 9-year-olds whose parents have had no high school were able to answer the exercise correctly, while three quarters of those whose parents have more than a high school education were able to do so. The $29 \%$ difference between their performances was the largest such difference, followed by a $20 \%$ gap of the adult level.

At ages 9, 13, and 17, the Central region did significantly better than the nation as a whole; at the adult level it was again the West that led the other regions.

Age 13
Objective IIB
$\rightarrow$ A.
The week after was one of the busiest weeks of their: ,
lives. Even when they went to bed, it was only their bodies that lay down and rested; their minds went on, thinking things out, talking things over, wondering, deciding, trying to remember where....

Constance lay like a statue, her hands by her sides, her feet just overlapping each other, the sheet up to her chin. She stared at the ceiling.
B. I heard a confused noise about me but, in the posture I lay, could see nothing except the sky. In a little time I felt something moving on my left leg which, advancing gently over my breast, came almost up to my chin; when bending my eyes downwards as much as I could, I perceived it to be a human creature not six inches high, with a bow and arrow in his hands and a quiver at his back.

Who's there? Who's there? Who is that?

A man's voice:
Sh-sh! Don't call out or you'll be shot. Be good; and no harm will come to you. Take care; it's no use trying to run away.

Raina:
The voice:

But who--
Remember; it you raise your voice my revolver will go off. Strike a light and let me see you.
D. I sat down in an armchair and felt very sick. That lasted for maybe five minutes and was succeeded by a fit of the horrors. The poor staring...face on the floor was more than I could bear, and I managed to get a tablecloth and cover it. Then I staggered to a cupboard, found the brandy and swallowed several mouthfuls. I had seen men die violently before; indeed, I had killed a few myself in...War, but this cold-blooded indoor business was different.

Which TWC of the pieces of writing above are alike in the way they are written? Fill in the ovals beside the TWO pieces which are alike in the way they are written.

The TWO pieces of writing that you said are alike are examples of which of the choices below? Fill in the oval beside your choice.
Biographies
First person narratives, $\quad \bigcirc$ Dialogues $\quad \circlearrowleft$ Fables
I don't know.

## National Results

Seventy-three percent chose $B$ as one of the two similar passages, and $76 \%$ chose $D$ as one of the two; $58 \%$ chose both $B$ and $D$ as the two similar passages. Twenty-seven percent selected both $B$ and $D$ and "First person narratives."

| No response | $7.8 \%$ |
| :--- | :---: |
| Chose $B$ and $D$ |  |
| Chose $B$ and $D$ and "First person narrative" | 58.2 |
| 27.4 |  |

Exhibit 37. Percentage of Correct Responses


Only 13-year-olds took this exercise. Thirty-seven percent of them chose "first person narratives" as the correct generic term, but, as exhibit 37 demonstrates only $27 \%$ selected passages $B$ and D and selected "first person narratives." The second most popular choice on the latter half of the exercise was "biographies," which may be an understandable choice for those who do not know what first person narratives are.

The highest percentage of correct responses occurred in the extreme affluent suburb size anc type of community category. Forty-two percent of the students so classified selected the two passages and identified them as first person narratives. The percentage of 13 -year-olds in the post high school parental education category who answered correctly (37\%) was also significantly greater than the national figure. The results for whites (31\%) and females (30\%) were notably different from the results for all l3-year-olds as well.

Only one Black l3-year-old in 10 chose passages B and D and identified them as first person narratives. This proportion was less than half the national proportion. Other results notably below the national percentage of success occurred in the lower
parental education categories. The percentage of success for the no high school group was 13 points lower than the national figure, and the percentage for the some high school group was 10 points below it. Significant negative differences from the rational figure also occurred in two size and type of community categories. The figure for the extreme inner city group was about $14 \%$, and the figure for the extreme rural group was $16 \%$. Males did not register a percentage of success equal to the national percentage; rather, they were 3 points below it and 6 points below the percentage of success for females.

The range in percentages of success was quite broad. Within the size and type of community categories the difference between the lowest percentage and the highest was 28\%. Within the parental education categories there was a range covering 23 percentage points. Considering the fact that the national percentage was only $27.4 \%$ these large differences are quite significant.

Ages 17, Adult
Objective IIB
A. (The owner of the VOICE, a fairhaired dandy, dressed in a different fashion from that affected by the GUARDSMEN, but no less extravagantly, comes through the gateway laughing. He is somewhat battle stained; and his left forearm, bandaged, comes through a torn sleeve. In his right hand he carries a Roman sword in its sheath. He swaggers down the courtyard, the PERSIAN on his right, BELZANOR on his left, and the GUARDSMEN crowding down behind him.)
$\infty$ B.
By this time their destined victim appeared from his cabin. He was a small and dark, but rather delicate looking man for a sea captain, with huge whiskers and moustache, however; and wore a red-co with watch-seals at his side. To this gentleman, Stabb was now politely introduced by the Guernsey man, who at once ostentatiously put on the aspect of interpreting between them.
C. Young man: Can $I$ get you...a cab, or something?

Grandma: Oh no, dear...thank you just the same, I'll take it from here.

Young man: And what shall I do now?
Grandma: Oh you stay here dear.' It will all become clear to you. It will be explained. You'll understand.
$\bigcirc$ D. "What are the bugles blowin' for?" said Files-on-Parade.
"To turn you out, to turn you out," the Color-Sergeant said.
"What makes you look so white, so white?" said Files-on-Parade.
"I'm dreadin' what I've got to watch," the Color-Sergeant said.
For they're hangin' Danny Deever, you can hear the Dead March play,
The Regiment's in 'ollow square-they're hangin' him today; They've taken of his buttons off and cut his stripes away, And they're hangin' Danny Deever in the mornin'.

Which TWO of the pieces of writing above are alike in the way they are written? Fill in the ovals beside the TWO pieces which are alike in the way they are written.

The TWO pieces of writing that you said are alike are examples of which of the choices below? Fill in the oval beside your choice.

| $\infty$ Biographies | Epics | Essays |
| :--- | :--- | :--- |
| Fables | Flays |  |
| I don't know. |  |  |


|  | Age 17 | Adult |
| :--- | :---: | :--- |
| Chose A \& C | $18 \%$ | $11 \%$ |
| Chose A \& C \& "Plays" | 17.3 | 10.8 |
| Chose A \& B \& "Novels" | 23.9 | 30.8 |

Exhibit 38. Percentage Choosing A \& C \& Plays, Age 17


Exhibit 39. Percentage Choosing A \& C \& Plays, Adults
SDIPF PERCENT
FRON CORRECT

Warion Response


This form similarity exercise required 17-year-olds and adults to recognize twc passages as excerpts from plays. If was difficult because one of the passages represents dialogue and the other represents dramatic stage directions. Only $17 \%$ of the 17-year-olds and $11 \%$ of the adults were able to both choose the similar passages and identify them as plays.

At both age levels, a majority picked choices $A$ and $B$ as the similar passages. If one is unfamiliar with stage directions, this is probably the most natural choice, since $C$ is obviously dialogue, $D$ is obviously poetic, and $A$ and $B$ are both prose passages. On part 2 of the exercise, $36 \%$ of the adults and $28 \%$ of the 17 -year-olds shose "NOVELS," regardless of what two passages they marked as similar; altogether, $31 \%$ of the adults and 248 of the teenagers selected passages $A$ and $B$ and (on part 2) "Novels." This combination, then, distracted a large proportion of people at both ages and contributed to the low percentages of success. In truth, both passages could appear in a novel (Ulysses, for instance).

Results for 17-Year-Olds
As noted above, more than half of the 17-year-olds selected A \& B as the similar passages; 18\% chose A \& C, the rest chose other combinations. Thirty-three percent selected the term "plays" on part 2. Bur: only $17 \%$ selected $A \& C$ and indicated they came from "plays."

Exhibit 39 displays the group results for those selecting A \& C and "Plays." The percentage of teenagers in the Southeast who successfully completed this exercise (ll\%) was notably smalier than the national percentage. This was the case as well with the three lower parental education categories (the no high school percentage was less than half the national figure) and with males. The figure for Blacks indicates that only one Black 17-year-old in twenty completed this exercise correctly.

Girls did considerably better on this exercise than boys, 228 of them completing both parts successfully. A greater percentage of Whites than of all 17-year-olds also performed the same feat. But the highest group percentage of success occurred in the post high $s$ shooj category: one-fourth of the people in that group performed tie task successfully.

## Results for Adults

As at age 17, more than half of the adults selected A \& $B$ as the similar passages, 11 : selected $A \& C$, while the rest chose other combinations. On part two, $23 \%$ of the adults selected "plays" and $36 \%$ selected "novels." But only $11 \%$ chose passages $A \& C$ and indicated they came from plays.

Whereas nationally one adult in ten indicated passages $A \& C$ were similar and identified them as parts of plays, only one Black adult in one hundred did so. The percentages of success in the lower two parental education categories ( $4 \%$ and $8 \%$ ) and the Southeast regional category (7\%) were also below the national figure.

The highest percentage of success once again occurred in the post high school parental education category: about one in five successfully completed both parts of the exercise. However, more than twice as many of the people in this category (42\%) selected A and B and "novels."

## Age Comparisons

Though percentages of success for both age groups wer: quite low, a greater percentage of 17-year-olds than of adults appeared to recognize the similar passages as parts of plays. This edge holds true throughout the group results. On the other hand, more adults than 17 -year-olds indicated that passages $A \& B$ could come from novels. Since both combinations could be correct, the reader must decide for himself how to interpret the results of this exercise.

Exhibit 40 displays the percentages of people of both age levels who selected $A \& B$ and "Novels." Except in the color and sex variables, there are no significant deviations from the national figure for 17-year-olds. Results for adults, however, seem much more "natural." The Western group was notably above the national figure; the Southeastern group notably below; the no high school parental education group was 18 points beneath the post high schvol group, differing significantly from it and from the national performance; and the big city percentage was 6 points lower than the national figure, while the big city fringe percentage was significantly 9 points above.

These figures imply that the adults chose this response more consistertly than the 17-year-olds did.

## Exhibit 40

Percentages of 17-Year-Olds and Adults Selecting A \& B and "Novels."

|  | 17 | Adult |
| :---: | :---: | :---: |
| National | 23.9\% | 30.8\% |
| Southeast | 21.5 | 25.1* |
| West | 24.3 | 36.0* |
| Central | 26.3 | 30.3 |
| Northeast | 22.4 | 29.9 |
| Male | 27.4* | 29.2 |
| Female | 20.8** | 32.3 |
| Black | 17.8* | 11.4* |
| White | 24.7* | 33.2* |
| No High School | 22.9 | 24.1* |
| Some High School | 25.9 | 29.2 |
| Graduated High School | 23.8 | 31.3 |
| Post High School | 24.4 | 41.9* |
| Big City | 24.8 | 25.0* |
| Small Places | 23.4 | 29.9 |
| l'=-ium City | 23.1 | 28.5 |
| L.y City Fringe | 24.3 | 39.5* |

Nine-year-olds responded to only two form similarity exercises. On the exercise already discussed, their percentage of success was 62.3\%. However, on the unreleased exercise, the national perce:1tage of success was only $14.8 \%$. The groups which registered the higher percentages of success on the exercise discussed in this chapter also did relatively well on the other exercise.

Results for 13-Year-Olds
Thirteen-year-olds were presented with three form similarity exercises, two of which have been discussed in this chapter. The three national percentages of success were: 78.5\%, 27.4\% and 27.9\%.

Results for 17-Year-Olds
Seventeen-year-olds took three form similarity exercises, two of which have already been reported. Their percentages of success varied widely: $17.3 \%, 40.3 \%$ and $85.2 \%$.

## Results for Adults

Adults took two form similarity exercises, both of which have been reported in this chapter. The results were very different: $10.8 \%$ on one and $78.4 \%$ on the other.

## Summary Results for All Ages

There were so few exercises of this kind in the assessment that it is impossible to make any confident assertions about skill in form recognition. This much is apparent: at least 7 out of 10 people at all age levels recognized rhyming passages as poetry. However, far fewer people demonstrated enough familiarity with stage directions to answer Rl20 successfully, and few l3-year-olds recognized first person narrative as a formal characteristic shared by two passages in exercise Rll9.

A comparison of the group results the 13-year-olds obtained on Rll8 (poems) and Rll9 (first person narratives) reveals that there were significant regional differences on the easier exercise (the Central region was-above, the Southeast region below, the national percentage) but no reliable differences on the more difficult one. Furthermore, there were no positive size and type of community differences on R118 and only one negative effect (medium size city) ; but on Rll9 the extreme affluent suburb group percentage was 14 points above the national figure and the other
extreme groups--rural and inner city--showed figures 11 and 14 points below the national percentage. Clearly the more difficult exercise dramatized disparities in ability to answer successfully exercises of this kina.

A comparison of the reported results for 17 -year-olds reveals somewhat the same phenomenon for the regions: on the easier exercise (Rll8--poems) the Central region was the only one above the national percentage; but on the trickier exercise (Rl20-plays) no region did notably better than the nation. It should also be noted that the female advantage just about doubled on the more difficult exercise.

The adult results on the same two exercises show a similar trend regionally: on the more difficult exercise the regional advantage (in this case the West's) disappears. But the adult women did nct double their advantage--instead, they performed no differently from the men.

## DRAWING INFERENCES

Mood, tone and atmosphere are vital ingredients in works of literature, though it is difficult to explain how they are created. A work may strike a reader as depressing or sarcastic because the author has forced him to draw certain inferences from the words and their arrangements; sometimes the reader is conscious of these inferences, often he is not. But always the process of drawing inferences from statements goes on and the better one is at it the deeper becomes his understanding of certain works of literature. Readers who can or will not read between the lines of a work stand outside of the experience it was designed to offer them; blind to the fact that though words can imply one thing literally they can be meant to suggest something else altogether, a reader may miss irony, innuendo, wit, and much more.

The exercises in this chapter wers of several types: the first two required drawing elemental inferences about a situation or a charactur the others required understanding of authorial tone " Id poetic mood. Though the exercises did not assess a broad range of inferential skills, they nonetheless provide information about a few elementary skills necessary for a minimal understanding of literature.

Age 13
Objective IIB

Read the following stage directions for a play while I read them aloud and then answer the question about them.

ACT ONE: The living room of a pleasant, inexpensive little house. There is no distinction of architectural design, but someone with natural good taste has managed to make it look attractive and livable on a very modest budget. There are some good prints on the walls. The hangings are cheerful, and the furniture, picked up through various bargains and inheritances, goes together to make a pleasant, informal atmosphere.

The front door, opening onto a porch is upstage. Left, the outer wall jogging into the room for a few feet. The inside of this outer wall is lined with bookshelves which contiriue around the corner to the fireplace in the left wall. Beiow this fireplace is a stand with a radio-phonograph.... In the sorner below the stair near the dining room door, a table up right against stairs has been prepared today to serve as a buffet table with a tray, napkins, silverware, and paper plates....There are two or three vases of flowers, and the books and magazines which frequently litter this room have been put tidily away.

At the rise of the curtain, the phone on table right center behind sofa is ringing....

Which of the following statements do the stage directions for this play prepare the reader to accept about the people in the house?

Age 13

| 2.9\% | The wife is in the hospital. |
| :---: | :---: |
| 2.1 | The family has been quarreling. |
| 87.0 | The family is preparing to have a party. |
| 1.9 | The husband has left the house for good. |
| . 6 | I don't know. |

Exhibit 41. Percentage of Correct Responses


The exercise requires a reader to infer from specific details what action will probably follow. The only answer which makes any sense at all is the third one; there are no grounds for choosing any of the others.

In no group did fewer than three quarters of the 13-yearolds select the correct answer. Nonetheless, there were significant differences from the national percentage of success (87\%). Ninety-five percent of the students in the extreme affluent suburb group, and $93 \%$ of those in the post high school parental education group answered correctly. Ninety percent of the Whites and $91 \%$ of the girls did the same thing.

The girls' percentage of success was 9 points greater than the boys, $82 \%$ of whom answered correctly. Significant deficits (relative to the national figure) also occurred for Blacks ( $-12 \%$ ), the extreme inner city group ( $-7 \%$ ), the two lower parental education groups ( $-6 \%$ ) and the medium city STOC group ( $-4 \%$ ).

Ages 17, Adult Objective IIB

Read the passage to yourself as I read it to you and then complete the two sentences on the next page by filling in the oval beside your selection.

Still holding his coat and his violin, the young man sat down on his bed and gave a deep sigh. "The weather, anyhow, is perfect," he said wearily.
"It is indeed," agreed Mr. Otkar. "It is very good weather to be out-of-doors." And he added gently: "Have you been walking far?"

The other replied with a loud sigh, after which he sat back and gazed around him in silence. "So," he said at last, ".lt is quite empty here. Then you also are poor, and will not be able to help me."

He did not seem to doubt that Mr. Otkar would help him if he could. Already, in advance, and for no reason, his pale thin face took on a look of gratitude. "I do not want anything in the way of money," he said proudly, "because I am not a beggar. What I would like is to give some concerts. If people could hear me play, they would go crazy over me."
"You understand, also, with me," he continued, "it is not like a beginner or an amateur. I have already had a great success in Europe, and in Pittsburgh, Pennsylvania."

And taking from his pocket a much-creased circular, he presented it to Mr. Otkar.

MORRIS ROSENBERG, CONCERT VIOLINIST. LESSONS, MASTER CLASSES, CONCERTS. FIRST PRIZE PARIS CONSERVATORY. SOLOIST WITH THE PITTSEUPGH SYMPHONY ORCHESTRA, PITTGBURGH, PA.
"Mr. Rosenberg is a genius on the violir." Oswego Press.
"Morris Rosenberg was the violinist of the evening." Galesburg Democrat.
"Mr. Rosenberg was adequate."
Pittskurgh Times.

MANAGEMENT, ROSE MORRIS, 1467 MARKET STREET PITTSBURGH, PA.
"That was myself," he said, leaning over and pointing to the management.
A. After reading this passage, we know that the violinist is

| 17 | Adult | - |
| :---: | :---: | :---: |
| 52. $3 \%$ | 61.8\% | poor. |
| . 2 | . 2 | $\bigcirc$ handsome. |
| 6.5 | 4.7 | $\bigcirc$ pretending to be tired. |
| 35.1 | 29.3 | $\bigcirc$ a genius who has never had a chance. |
| 5.6 | 2.8 | $\bigcirc$ I don't know. |
| + | 1.3 | No response |

B. In writing the passage, the author has mainly attempted to
$\qquad$
$9.8 \quad 12.8 \%$
$83.1 \quad 76.4$
1.1 2. 9
1.9
2.7

| 4.0 | 5.0 |
| :--- | :--- | :--- |
| + | 1.2 |$\quad$| I don't know. |
| :--- |
| + |

Exhibit 42. Percentage of Correct Responses, Age 17


Exhibit 43. Percentage of Correct Responses, Adults


In a sense, part $A$ of the exercise is designed to determine how many people infer too much from the passage. There is nothing in it to suggest that the violinist is "handsome" or "pretending to be tired." We know that Morris Rosenberg may think of himself as "a genius who has never had a chance," but the writer of this ironical sketch makes it clear that Morris has a mediocre talent, at best. The first answer is the only one which is supported by the passage.

Part B calls for elementary inference about the overall direction of the passage. The second and fourth answers are the most plausible, and of the two, "characterize the violinist" appears most appropriate. If the last answer were changed slightly to read "make the reader laugh at the violinist and Mr. Otkar," it would probably be as acceptable as the second answer.

Results for 17-Year-Olds
Only half of the l7-year-olds chose the correct response to question $A$. The remainder apparently did not recognize the irony in the passage. A very substantial $35 \%$ clearly missed the irony, accepting Mr. Rosenberg's estimate of his talents at face value and neglecting all the evidence to the contrary. Half of the Black 17-year-olds and half of the 17-year-olds whose parents have had no high school also chose the answer which suggested that Rosenberg is "a genius who has never. had a chance."

The national percentage of success on part $B$ was considerably higher at 83\%. But the combined percentage--that is, the percent of those answering both questions correctly-was 46.4\%.

Exhibit 42 reveals that in two groups--the post high school parental education group and the big city fringe size of community group, more than half of the 17 -year-olds answered both successfully. The percentage of femaies (49\%) was also notably greater than the national percent and the figure for males.

About one Black teenager in four selected the best answers to both parts of the exercise, a proportion 21 percentage points below the national percentage. The proportion was somewhat greater in the two lower parental education categories ( $27 \%$ and 37\%, respectively), and in the Southeast category it was also significantly below the national figure at $41 \%$.

## Results for Adults

Sixty-two percent of the adults chose the correct response to part A; 29\% chose the answer suggesting Rosenberg was a genius.

On part $B, 76 \%$ selected the second answer. But the percentage answering both questions correctly was 5l.4\%. Exhibit 43
indicates that significant positive effects appeared in three groups.

The highest percentage of success--67.5\%--appeared in the post high school parental education category. Among adults whose parents graduated from high school the figure was $60 \%$, and among Whites it was 55\%. Blacks again posted a percentage below the national figure.

As at age 17 , only $25 \%$ of them answered both questions correctly. The percentages for the no high school parental education group (33.6\%) and the southeastern adults (42\%) were also notably lower than the national figure.

## Age Comparisons

In general, adults were more successful on this exercise than were l7-year-olds. It is possible that they recognize the passage's irony more easily than the teenagers did because they have had more experience with newspapers and could better evaluate Morris Rosenberg's clippings. But their success may also be due to a closer reading of the passage.

At both ages the Southeast showed a lower than national percentage of success and there was an enormoins difference in percentage between the lowest and highest parental education category $-30 \%$ at age 17 and $34 \%$ at the adult level. At age 17 , the big city fringe group differed substantially from the nation (it was 8 points above it) but this advantage did not appear for adults.

Ages 9, 13
Objective IIB

Here is a poem about which you are going to be asked two questins. I will read the poem to you as you read it to yourself. When we have read the poem carefully, I will read you the first question and you are to fill in the oval beside the answer you think best. Then I will read the second question to you and you are to write your answer in the answer space:

As the cat

flowerpot

## William Carlos Williams

A. Which of the following do you think the poet is really doing?
Age 9 Age 13
6.8\% $2.0 \%$ He is worried about the cat.
$5.8 \quad 1.0$ He is being mad at the cat.
$3.0 \quad 1.1<H e$ is being sad about the cat.
77.8 94.8 He is describing the cat's movements.
5.3 $1.0 \quad$ I don't know.
$1.3+\quad$ No response
*"As the Cat" from The Collected Poems of William Carlos Williams, by William Carlos Williams, reprinted by permission of New Directions Publishing Corporation.
B. What are your reasons for choosing your answer to question A?

For this inference exercise, people were asked to indicate their understanding of narrative voice by answering a question about the speaker's attitude and then defending in writing the answer they selected.

## Part A

Results for Age 9
The answer most often selected (78\%) was "He is describing the cat's movements." Seven percent selected "He is worried about the cat," $6 \%$ selected "He is being mad at the cat," 3\% chose "He is beiny sad about the cat," and the remainder either did not know or did not respond. Fewer than half of the Black 9 -year-olds (47\%) and only 55\% of the children in the extreme inner city group selected the fourth choice. The rest of them selected other choices at about twice the rate of selection demonstrated nationally.

Results for 13-Year-01ds
The overwhelming majority of 13-year-olds--95\%--selected "He is describing the cat's movements."

Part B
The second part of the exercise called for a defense of whatever answer the respondent chose on part A. It was scored on the four part scale described below:

GENERAL GUIDELINES FOR SCORING
$1=$ illiterate response; irrelevant response; simple repetition of the choice; respondent copies part of the work without additional thought or comment

2 = clearly reasonable explanation; personal opinion of the mood without supporting reasons; examples with little or no comment

3 = reasonable explanation with some defense; respondent
shows how the author's style helps to convey the meaning he wants to convey

4 = reasonable explanation and a good discussion of the rationale for making the choice; some originality; a good logical argument showing insight into at least part of the work

Below are some examples of defenses for each choice and their appropriate scores.

The poet is describing the cat's movements
Score $=1$
I think this is the right anser The jamcloset first the right forefoot I think the poet is describing the movement of the cat.
Because I like cats. I mean I love cats. The poet said first the right foot and then the hind stepped down.

## Score $=2$

It tells about how the cat moves.
It tells how the cat stepped down from the jamcloset.

## Score $=3$

Because he described each movement very carefully. The story carefully tells what the cat is doing. Because he is describing where the cat's feet were going.
He described the cat's motions very carefully and did not talk about anything else.
It tells every movement the cat made and how he made them.

Score $=4$
Because it told about how carefully the cat climbed down so gracefully and gentle without making a scund.
Because he told us every step the cat maked and what foot he was using and what he fell into, he described exactly what the cat was doing.
He tells how the cat walked, where he put his feet down and how he put them down.

He was telling which foot came down first and how the cat was putting its feet down and how it was walking.
He uses carefully selected words to describe how and where the cat moved. He even tells when each paw is moved.
It shows how a cat moves when it explores something mysterious and interesting to itself.

The poet is being mad at the cat
Score $=1$
Because I know the man is mad at the cat.
He is being mad at the cat.
The cat climbed over the top of the jamcloset.
Score $=2$
Because he is mad and making the cat go away from him to make the cat leave him alone.
He ran up the jamcloset so he couldn't get bit by the dog.
Because when he says flowerpot he says the cat stepped in his brand new flowers.

Score $=3$
The cat could have fell off it he woild have broke something and he would get sent away to a different owner or broke the flower pot.
Because cats are not supposed to climb on things or go into cupboards and flowerpot, that's why he is mad at him.
Because if a cat at your house stepped in a flower pot you'd be mad too. Because you would have to clean it up.

The poet is being sad about the cat
Score = 1
I didn't pick question $A$.
He is being sad about the cat.
He is telling us about it. So he said he would throw the flower pot away into the pit.

Score $=2$
When a pet falls down off of something I sometimes feel a little bit sorry about them they may have gotten hurt or something.

## The poet is worried about the cat

Score $=1$

Because it's nice poem.
Score $=2$
Because I think anyone would be worried about his or her cat if they like that cat.
Because he did not know why the cat is going. He may be lost or hurt. Or got kill.

Exhibits 44 and 45 present group percentages of all those who chose "He is describing the cat's movements," and received a score of 3 or 4 on the defense of their answer.

Results for 9-Year-Olds
More than half of the 9-year-olds who chose describing received a score of 1 for the defense of their answer; another quarter received a score of only 2. Only one 9-year-old in seven gave an adequate or better defense of his answer.

There were greater proportions in some categories, however. Nineteen percent of the students in the post high school parental education category received scores of 3 or 4 , while $17 \%$ of the girls and $16 \%$ of the northeaste::ners did so. One fourth of the $9-y e a r-o l d s$ in the extreme afflu?nt suburb group defended their answers well enough to receive a score of 3 or 4 .

Males were less successful than females in adequately defending their answer, since only one in ten received a good score. Only 6 percent of the Blacks received a score of 3--no Blacks received a score of 4 . The same results obtained for students in the extreme rural, extreme inner city, and no high school groups.

## Results for 13-year-olds

Seventeen percent of the 13-year-olds who selected this answer received a score of $1 ; 23 \%$ got $2 \mathrm{~s} ; 47 \%$ got 3 s and $7 \%$ garnered 4 s . In all, then, more than half were given adequate or better ratings.

As exhjbit 45 indicates, the proportion of good responses was greater in five subgroups. Sixty percent of the girls, the students in the post high school parental education group and the children in the medium sized city category received adequate or better scores. The percentage for Whites (58\%) and for persons whose parents had graduated from high school (58\%)
was also notably greater than the national figure.
Southeastern 13-year-olds were less successful than all. 13year olds in obtaining a good score for their defense; only 43\% - them received a 3 or 4. The percentage for males was 4 points higher, but it too was significantly lower than the national figure and 12 points lower than the percentage registered by girls. Teenagers in the lowest parental education category and in the extreme inner city group were also distinctly less successful than all l3-year-olds in adequately defending their answers; only $39 \%$ of the former and $41 \%$ of the latter did so.

## Age Comparisons

Apparently, 13-year-olds are better able than 9-year-olds to both determine the speaker's intention in the poem and defend their choice of answer. Four times as many l3-year-olds as 9-year-olds received adequate or better ratings on their answers.

The group results at both age levels indicate that girls were far more successful than boys in obtaining good scores-and their advantage increases with age. Apparently, they are either more articulate than boys or less reluctant to write.

Exhibit 44. Percentage of Adequate Responses, Age 9


Exhibit 45. Percentage of Adequate Responses, Age 13
SDIPF PRACPMT



Ages 13, 17
Objective IIB

Here is a poem about which you are going to be asked two questins. I will read the poem aloud as you read it to yourself. When we have read the poem carefully, I will read you the first question and you are to fill in the oval beside the answer you think best. Then I will read the second question to you and you are to write your answer in the answer space.

The Closing of the Rodeo

The lariat snaps; the cowboy rolls

## Deleted due to copyright restrictions

« Dark drum the vanishing horses' hooves.
William Jay Smith
A. Which of the following do you think describes the mood of this poem?

Age 13 Age 17

*"Closing of the Rodeo" from Celebration at Dark by William Jay Smith. Reprinted by permission of Farrar, Strauss and Giroux, Inc.
B. What are your reasons for choosing your answer to question $A$ ?

Part A
The question this time dealt not with intention but with mood. The choices presented the respondents were clear cut, and the results reflect little uncertainty at either age about which adjective best describes the poem's mood. Eighty-three percent of the 13 -year-olds and $86 \%$ of the 17 -year-olds selected "Sad."

It should be noted, however, that Black 13-year-olds selected answers according to a pattern noticeably ifferent from this national pattern. Sixty-three percent of them selected "Sad;" 17\% chose "Humorous;" 10\%, "Cheerful;" and 7\%, "Angry." At age 17, the results for Blacks were much more li..e the national results.

The criteria for scoring the student's defenses of their choices were the same as they were for the William Carlos Williams exercise just discussed. (see page 106) Here are some sample answers and their appropriate scores:

Angry
Score = 1
It sounds very angry to me.
Because he said that the lariat snaps and the cowboy rolls his pack, the word snaps.
Because he goes away fast and smoke comes out.
The way the poem started. It makes me think as if the cowboy was angry.

Score $=2$
Because it sounded as though he was angry, not cheerful or sad.
The different attitudes in the story express anger.
Because when the cowboy was there he saw all the pollution and heard all the strange noises which got him mad.
He sounds discouraged.
Because it seems as though he was in a fight.
Because it said the curtains fall and I think the cowboy hit the curtains and made them fall.

## Score $=3$

The lariat snaps which doesn't sound too pleasant, and then the cowboy rides away back to where he belongs. It seems that he wasn't accepted where the scenery shows the curtain closing.
Because he has to go somewhere and he doesn't want to go and he has to leave all his friends. He has to leave and go away; far away.

## Cheerful

Score $=1$
The poem sounded cheerful and happy. And like someone was saying goodby.
Because it sounded that way.
Score $=2$
The words chosen, action verbs.
Because he is going back to his home away from the noise.
Because it says the cowboy rolls and that means he has fun.
Because he is singing and that means that he has fun.
If you don't like the city you can leave. Most don't like the smog and city noise. I sometimes wish to do the same thing.

Score $=3$
They were glad they had been there even if he did have to leave.
Seems to be going back after a fun time at the rodeo.
At a rodeo people are usually happy and cheerful. It said the lariat snaps; the cowboy rolls. I think people will be excited and screaming so they should be cheerful.

Sad
Score $=1$
Because it said.
Because it sounded sad.
It's a sad scene.

Goodby says the rain on the iron roofs, goodby says the barber poles.

Score $=2$
Because everything is saying goodby.
Because all those things drove him off and everything else.
Because of the way the sun sets in the poem as he rides away.
Due to the composition and subject matter I feel it expressed sadness.
The way it is stated it sounds sad.
The cowboy is leaving.
Score $=3$
After each paragraph the last line always states how the cowboy went away, the train went away, the horses vanish. Every line states the object leaving.
It's the end of something and one is normally sad when something comes to an end.
The mood just seems sad. It's telling sort of the lonely life of a cowboy making it very sad.
Because it is the closing and it is like saying goodby to a friend.

Score $=4$
Everything in the poem is dark - plumes of smoke, a train pulling in darkness, dark drum. All this darkness implies sadness.
Because it tells of the disappearance of the cowboy and how he has been replaced by steel and machines: It is sad because he represented early America, and he is now practically extinct.
Because he doesn't like to see a good thing come to an end as nobody does. For now all is left is the memories of the rodeo and all he can do is look back on it.
Because the poem tells about a rodeo closing and how the cowboy just goes away until it is time for another rodeo, saying good-by to all the people and places he has grown so fond of.

## Humorous

Score $=1$
Humorous
Humerus
Hunerus
Gunerus
Guraine
Score $=2$
Because it looks like the man wants to get away. He was at a place where they're were talking poles, iron roofs and he was scared. Because the poem was humerous. Rain can't talk, neither can barber poles. It seems like the rain is talking to the roof and the roof is responding.
Because I felt this was a dumb poem and I figured there are many types of humor and that this could be one of the odd ones.

The l3-year-olds did not defend their choices as well as they did on the previous exercise. The 17-year-olds, however, did very well; 7 out of every 10 who chose "sad" received a score of 3 or 4 . Exhibits 46 and 47 present the group percentages of people who received a score of 3 or 4 on their defense of "sad".

Exhibit 46. Percentage of Adequate Responses, Age 13


Exhibit 47. Percentage of Adequate Responses, Age 17
sDIP? percent
Pron adequate
NATION DRFENSE



Part B

## Results for 13-Year-Olds

Two out of every five l3-year-olds (41\%) defended their answer at least adequately. As exhibit 46 demonstrates, the proportion was even greater in some variable groups. About half of the fenales received scores of 3 or 4 , along with half the teenagers in the extreme affluent suburb and post high school categories. Whites, as a group, also performed above the national level.

The percentage of adequate or better defenses among students in the rest of big city STOC group was 18 points below the national figure. Notable deficits also occurred in the no high school parental education group ( 17 points below the national percentage), the Blacks (also 17), the extreme inner city group ( -12 points) and the Southeastern regional group ( -7 .points).

The percent of males receiving scores of 3 or 4 was 7.6 points lower than the national figure of $41 \%$, and almost 16 points lower than the figure established by females.

Kesults for 17-Year-0lds
Almost two-thirds of the 17 -year-olds (63.8\%) responded with an adequate or better defense of the answer "Sad." As exhibit 47 reveals, however, the percentages varied among several subgroups.

For instance, almost three-fourths (73\%) of the l7-year-olds who claimed at least one parent had post high school education received scores of 3 or 4. About $70 \%$ of the girls accomplished the same thing. And Whites, as a group, posted a percentage that was also significantly above ( 4 points) the national figure of $64 \%$.

On the negative side, the percentage of Blacks scoring 3 or 4 was a significant 26 points smaller than the national figure. In the no high school parental education group, the figure was 20 points off the national level and in the some high school group it was down 10\%. Slightly more than half of the Southeastern students (52.4\%) received good scores, but this too was a figure notably lower than the national figure.

Finally, males were again outperformed by females; the difference between them was 12 percentage points.

## Age Comparisons

Fifty percent more 17-year-olds than 13-year-olds presented adequate or better defenses of their answers, even though about
the same percentage at each age selected "Sad" as the best answer. Clearly, the difference between the ages lay primarily in the greater ability of the older respondents to articulate their reasons for choosing an answer.

Whereas, on a national level the percentage went from 41\% (13-year-olds) to $64 \%$ (17-year-olds) on a sub-group level there was not always a proportionate jump in percentage. Black l7-year-olds, for instance, showed a percentace only 13 points higher than the one recorded by Black l3-year-olds. Inner city youths only registered an $11 \%$ gain.

Another way of looking at this is to note the differences between highest and lowest percentages within subgroups at each age:

Differences (Effects)

|  | Age 13 | Age 17 |
| :---: | :---: | :---: |
| Black - White | 16\% | 30\% |
| Male - Female | 16 | 13 |
| No High School - Post High School | 25 | 29 |
| Extreme Inner City - Extreme Affluent Suburb | 21 | 35 |

It should be noted that these part $B$ differences are considerably greater than they are on part $A$ alone. The implication is that the writing required by part $B$ is a major factor in enlarging the differences. In other words, though both males and females may know the answer, the females appear better able to write a defense of their choice than the males.

Ages 17, Adult
Objective IIB

Here is a poem about which you are going to be asked two queslions. I will read the poem aloud as you read it to yourself. When we have read the poem carefully, I will read you the first question and you are to fill in the oval beside the answer you think best. Then I will read the second question to you and you are to write your answer in the answer space.

Sport *
Hunters, hunters

> deleted due to copyright
> restrictions

Take their delight.

Age 17 Adult
$49.9 \% 55.8 \%$
6.35 .6
$19.7 \quad 14.1$
20.720 .0
2.7
NR: $+1.2 \%$
A. Which of the following do you think the poet is really doing?
(He is being angry at hunters.
$\bigcirc \mathrm{He}$ is cheering the hunters on.
$\bigcirc H e$ is feeling sorry for animals.
$\bigcirc \mathrm{He}$ is just describing hunters. and animals.

QI don't know.
B. What are your reasons for choosing your answer to question $A$ ?
*"Sport" from The Complete Poems of W.H. Davies. Reprinted by permission of Wesleyan University Press.

Part A
The best answer to the question is "He is being angry at hunters." The second choice is plainly incorrect. The third choice is not incorrect, but it less accurate than the first. And the fourth choice is the sort of inaccurate, non-committal answer one might choose in the hope that it could not be wrong.

## Results for 17-Year-Olds

Half the teenagers selected the firsc answer; but about a fifth of them chose the third and a fifth chose the fourth. Only $6 \%$ selected the dead wrong answer, and only 38 indicated they didn't know. More than a third of the Blac'i 17-year-olds and $39 \%$ of those in the lowest parental education group selected "He is just describing hunters and animals," the most literal and noncommittal of the four answers.

Results for Adults
Fifty-six percent of the adults selected the first answer. Fourteen percent chose "He is feeling sorry for animals" and 20\% chose "He is cheering the hunters on" and about $5 \%$ either did not know or did not respond to the exercise. Thirty-seven percent of the Black adults and $35 \%$ of those in the Southeastern group selected the last answer.

Part B

The scoring instructions were the same as for the previous two exercises. (see page 106) Below are some examples of responses and the scores they received:

## He is being angry at hunters

Score $=1$
It was the best one.
Score $=2$
Well, I thought it might be just as good as any other one you mite say. Also, cause by process of limination too. He weren't cheerin' em on, that's for sure and he weren't doing a very good job of describing. He sorta felt sorry for them foxes
but mostly he was angry. He's being sorta what they call sarkastick when he says "Haste Hunters, Haste." It's a nice poem, I'm glad I red it.
The person who wrote the poem is trying to say, is it such a sport to kill animals and why shouldn't something be done about the slums because rats bite baby's in their cradles. I think he's saying why not kill the rats and things that we have to live with and then worry about the one's that are running free.
Because the poet is angry at hunters for their unfair advangage over the fox.
Because he sounded like a man who love nature and didn't like for people to kill the animals if they were not bad.
I picked it because it describes how the writer feels for hunters who are after the animals. I also picked it because of the way ie is expressing it in words.
He is angry because fox hunting isn't a very fair sport.

Score $=3$
My reason is because he said he saw the fox's eyes that looked big with fear and of the hunters chasinc him Then he dares the hunters to say what they really get out of chasing poor animals.
I felt that the poet is being angred by all types of hunters. The poet shows how foxes or frightened babies are taken advantage of by the powerful hunters.
He is criticizing the hunters for killing defenseless things, and compares them to rats biting defenseless babies. The tone of voice in the poem is a sarcastic one.
The tone of the poem is angry. The poet makes the hunter in his poem look cruel and heartless in the eyes of the reader. He compares hunters to wats that bite babies.
I think the poet is being facetious in his poem. He is being cynical about hunting. I feel he hates hunting and does not think of it as a sport but rather as a massacer or slaughter.
The author compares rats that bit babies to hunters who kill animals. The rats are doing a great harm and so are the hunters. Hurting animals (and babies) isn't being very sporting.
He was angry with the hunters because they were chasing a scared fox whose only defense was in the Fox's running ability. The fox really was no
match for the men just as the baby was no match for the rat.

Score $=4$
I chose my answer because $I$ think the man is trying to point out that we may think its fun to kill off other animals but if we were in the position they were in, we will find out its all been a mistake. They wouldn't like a rat to bite their children so why should they go out and do the same thing.
My reason for choosing A for question "A" is that this answer best describes the poem. He is saying that hunters hunt foxes the same way rats bite babies in cradles. Nobody would want a rat to bite an infant there why should a hunter be allowed to kill a fox's child.
The author says, "Is it a noble sport?" Actually he answers his own question by denoting the cruelty which man uses in order to kill for pleasure and not for sport. Much of the author's poem is written in sarcasm, and he achieves his purpose this way.
He's angry at hunters because he thinks that they're like rats. Rats like to crawl up on babies in bed like in ghettos and kill them. Hunters are trying to hunt and kill the fox. Both the rats and men take delight in a sport as killing.
The poet is making fun of hunters by lowering them and comparing them to rats. Rats are a good animal to use because most people fear and hate them. Thus it makes you think that they must be incredibly evil.
Because the poet compares men hunting to rats that bit babies in cradles, he is obviously degrading the hunters. When the poet does make this comparison between men and rats it shows he doesn't think much of either because they prey on the weak and defenseless.

He is cheering the hunters on

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Score = l
```

None
Score $=2$
The first stanza of the poem sounds like the poet is getting really excited and he says to follow the
chase, and tells them to "Haste Hunters Haste." Because in writing the poem it starts off as if he is cheering the hunters on by saying follow the chase I saw the fox's eyes. He just seems as if he is cheerful in writing the poem.
The way the words are put together and the way the words are used, they describe cheering on the hunters.

Score $=3$
In both paragraphs he is giving reference to cheering the hunters on. In paragraph 1 , he is teiling them to make haste. In paragraph 2, he says rats take their delight in biting babies in cradles so should men have their delight. However, the angology is is about exact and his being very satircal at this.

Score $=4$
None

He is feeling sorry for animals
Score $=1$
I chose A because of the way the writer put some phrases.

Score $=2$
Well the way he uses his words in describing the chase like when he says he sees the eyes not in his face but on big with fright.
Because of the way he described the fox.
I believe the person who wrote the poem was trying to show the hunters what they are doing to the wild life around them. I also believe that they are angry with the hunter.
He is feeling sorry for the animals because he is already angry with the hunters and the other two answers are definitely wrong.
The animals have no way of defending themselves other than running somewhere and hiding from the danger.

Score $=3$
I think he is feeling sorry for the animals because of the way he describes the rats biting babies in
cradles. He thinks that animals are helpless like a baby. And they have no defense against hunters. From the lines "I saw the fox's eyes, not in his face but on it big with fright." and when he compares the fox with the baby in its cradle.
The reason I chose the answer that it was cruelty to animals was that it told of how the animals were frightened and compared man to a rat.

```
Score = 4
```

Because the hunted fox is being hunted as a baby is bitten by a rat. People would feel sorry for the baby but not for the hunted fox. The author is trying to point this out by feeling sorry for a fox and all other animals like him, who is helpless from the hunter.
My reasons for choosing my answer to question $A$ are as follows: In the sentence, "I saw the Fox's eyes, not in his face, on it big with fright, Haste, hunters, haste." This suggests a feeling of $\mid$ sympathy to me. I think he is saying that man preys open game as rats do small babies in cradles. In a way they (game and baby) are both defenseless.

He is just describing hunters and animals
Score = 1
No special reason just that he described both hunters an animals.
To me this is what the author is doing. It just sounds like it.

Score $=2$
Because he is describing animals and hunters because foxes bite and hunters kill.
I think he is just trying to show how hunters are because they will do anything to kill an animal.
I chose my answer because in the poem the author is describing how hunters and animals act.
The reason I chose my answer was because the poet was just telling people about hunters and animals. The poet didn't actually seem angry with either and neither was he sarcastic. Also, he wasn't cheering the hunters on.
Because it tells about hunters and animals in the poem.

Score $=3$
The hunters are taking shots at Foxes and rats are taking bites at babies they are almost the same.
He is telling how humans and animals are alike. Both hunt for fun. The rat hunts for food to live on while the hunters hunt for fun which is an enjoyment in life.

Score $=4$
None
I don't know.
Score $=1$
None
Score $=2$
He could either be angry at the hunters or he could be cheering them on.
Because they mixed everything in the poem and finally they don't say what it is.

Below are the approximate percentages of people receiving each of the four scores for defenses of the three most popular choices:

## Choice 1 "Angry"

| Score | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| Age 17 | $2 \%$ | $8 \%$ | $29 \%$ | $10 \%$ |
| Adult | 5 | 9 | 29 | 12 |

Choice 3 "Feeling Sorry"

| Score | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :---: | :--- |
| Age 17 | $1 \%$ | $6 \%$ | $10 \%$ | 38 |
| Adult | 1 | 5 | 7 | 2 |


|  | Choice 4 |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| "Just Describing" |  |  |  |  |
| Score | 1 | 2 | 3 | 4 |
| Age 17 | $4 \%$ | $12 \%$ | $4 \%$ | $.6 \%$ |
| Adult | 6.5 | 10 | 3 | .3 |

At least one of every four persons who chose "Angry" received a score of 4 on their defense of that answer. Of those who chose "feeling sorry," only one in seven received a 4; and of those who chose "just describing," only an extremely small number provided a defense that merited a score of 4, while three-fourth received scores of either 1 or 2.

Exhibits 48 and 49 present the group results for people who received scores of 3 or 4 in their defense of "He is being angry at hunters."

Exhibit 48. Percentage of Adequate Responses, Age 17


Exhibit 49. Percentage of Adequate Responses, Adults


Results for 17 -Year-Olds
There was a great deal of variability in the group percentages of adequate responses. The figures in five groups were substantially above the national figure of 39.7\%. Regionally, there were $6 \%$ more adequate essays written by northeasterners than by all 17-year-olds. Females too registered a percentage 6 points higher than the national figure. The proportion of Whites writing adequate responses was 48 above the national level and the percent of people in the big city fringe group doing so was 9 points higher, at 49\%. The greatest positive difference from national performance occurred in the post high school parental education group: $54 \%$ of the 17 -year-olds in that group received scores of either 3 or 4 for their defenses of the first, and best answer.

There were seven significant negative differences from the national performance. The percentage of southeasterners who submitted adequate or better responses was 12 points lower than the national figure of 39.7\%. Males were almost 6 points lower, and 11 points behind the females. Only one Black in 9 (11.5\%) wrote an adequate or better response, a proportion far below the national performance. All three lower parental education groups showed notable departures from the nation: the lowest was 23 points below it, the some high school group was 12 points below it,
and the graduated from high school group was 3 points below. Finally, the percentage of adequate responses by people in the small place category was 6 points lower than the national figure.

Within each variable category, there was a considerable difference between the lowest and highest percentage: in the regional grouping the difference was almost l8\%, for the sexes it was 118, for color it was $32 \%$, in the parental education groups it was $37 \%$ and in the size of commanity variable category, it was 15\%. Clearly, the necessity for a written defense of an answer highlighted educational differences that do not appeaz to be as great on simple multiple-choice exercises.

## Results for Adults

About $42 \%$ of the adults adequately defended their choice of the answer "He is being angry at hunters." There were not as many group differences from this percentage as there were at age 17. The Western regional group, as usual for adults, did significantly better than the other regions and the country as a whole: $49 \%$ of the Western adults wrote adequate or better responses. Whites, too, demonstrated a higher than national percentage (45.3\%) and so did the big city fringe group (51.1\%). The greatest positive difference from national performance occurred in the post high school parental education category: its $67 \%$ figure was 25 percentage points above the national percentage! In this instance, it would appear that parental education is still an important factor in adult performance.

Three categories had percentages notably lower than the national figure: the Southeast was 16 points below, the Blacks were 27 points below and the no high school category was 18 points below. The difference between the lowest and the highest parental education group was almost 44 percentage points!

## Age Comparisons

Though a slightly lower percentage of 17-year-olds chose the best answer, a greater proportion of them received scores of 3 or 4.

Regional percentages were about the same for both ages, though 98 more Western adults than 17-year-olds received 3s or 4 s . Adults from small towns did better than 17 -year-olds from small towns, but at both age levels the best results according to size of community were achieved by people living on the fringes of big cities.

More females than males received adequate or better scores for their defense of answer at age 17, but at the adult level, the difference in performance was negligible.

Only one Black 17-year-old in nine and only one Black adult in seven received a 3 or a 4 on this part of the exercise. Since only $25 \%$ of the Blacks chose this answer ("Angry") to begin with, these figures represent a relatively small number of Blacks. The Black-White difference at both age levels was $30-32 \%$, a very great difference, considering that the percentages for Whitss were only around 44\% at each age level.

Once again, people whose parents have had little education performed far below those whose parents have had more than a high school education. At age 17 the difference between these two groups was $36 \%$, and at the adult level, it was $44 \%$. In fact, adults whose parents have had post high school education posted the highest percentage of part $B$ responses receiving a score of 3 or 4: 67\%.

## Summary Results for All Inference Exercises

The results discussed so far in this chapter are for released exercises only. In order to present a more complete picture of performance on exercises of this type, we are supplementing the released data with the results of both released and unreleased exercises in the following discussion.

Results for 9-Year-Olds
Nine-year-olds took two inference exercises one of which has been discussed earlier in this chapter.

Results for 13 -Year-Olds
Thirteen-year-olds took four inference exercises, three of which this report has discussed. Their percentage of success on the multiple choice item (Rl23) was 87.0\%; the percentages of 13-year-olds writing adequate defenses of their responses on the remaining exercises were: $10.3 \%, 41.08$ and $53.9 \%$.

Over the three reported exercises, no one region did significiantly better than the nation, but the Southeast tended to do worse. Female percentages were consistently 9-15 points higher than male, White figures from 3 to 5 points over the national figures, Black from 12 to 26 points below, and the post high school group from 12 to 25 points above the percentage registered by the no high school group. Students in the extreme affluent suburb category were consistently 7-9 points above the national level, while those in the extreme inner city category were consistently below the national level. Those groups which were significantly below the nation on the multiple choice exercise were almost twice as far from the national figure on the exercises requiring a defense of choice.

Results for 17-Year-Olds
Seventeen-year-olds responded to five inference exercises, three of which have been discussed in this chapter. One of the exercises consisted of two multiple choice parts (R124) so there are actually six results. These percentages (either of success or of adequate responses) were: $21.8 \%$, $26.8 \%$, $39.7 \%$, $52.5 \%$, $63.8 \%$ and 83.18 .

Over all the exercises, no regional group established a pattern of consistent above-national performance. However, the Southeast was consistently below the national percentage. As at age 13, females consistently held an advantage over males, Whites were always above, Blacks always below the nation. The difference between the lowest and the highest parental education groups was always at least 29 percentage points and, in the size of community
variable, the big city fringe subgroup percentage was always 7 to 9 points above the national percentage.

## Results for Adults

Young adults took three inference exercises, two of which have been reported. There were four results (because some of the exercises had two parts) and they were: 32\%, 41.7\%, 61.8\% and $76.4 \%$. The first two were percentages of success, the others were percentages of adequate responses.

On the multiple choice exercises no regional group showed a significant advantage. However, on both exercises requiring written defenses of choice, the Western percentage of adequate responses was notably greater than the national percentage. Regardless of the type of exercise, the Southeast was below the nation in all cases. As we have noted elsewhere, there were no male-female differences in performance for the adults. Blacks and Whites, however, differed from the nation to the same degree they did so at age 17 , and parental education differences remained as extreme as they were for the teenagers.

Summary Results for All Ages
Because the various age groups answered different questions, it is difficult to compare their results meaningfully.

## APPENDIX

The following appendix presents the complete results for all of the exercises in this theme. For every result there is a national percentage (the first figure after the word "effect"), and the standard error for that percentage ("S.E.P."). The national percentage is followed by the effects, or differences from the national figure, for each group, along with the standard error for each effect ("S.E. Effect"). To clarify this, turn to the very first results, those for Exercise Rlol. The first result presented is for the "I don't know" choice, age 9. Nationally, $3.2 \%$ selected that choice. The effect for the Southeast is $1 \%$, so one can conclude that $4.2 \%$ of the 9 -year-olds selected "I don't know." There was no difference from the national figure in the Western group, but in the Central region the effect was -.5, or 2.7\%.






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| 5.1. P | . 2 | . 2 | . 3 | . 1 | . 6 | . 3 | . 1 | $\because 0$ | . 0 | 1.4 | . 4 | . 0 | . ${ }^{2}$ | . 5 | . 2 | . 4 | . 0 | . 0 | . 2 | . 0 | . 6 | . 9 | . 4 | $\because 1$ |
| 5.8. Eprest |  | . 2 | . 2 | . 2 | . 4 | . 2 | . 2 | $\because 2$ | .2 | 1.2 | . 4 | .2 | . 2 | . 5 | . 1 | . 4 | . 2 | . 2 | .2 | . 2 | . 5 | $\stackrel{.}{2}$ | . 4 | $\stackrel{2}{2}$ |
| AG8: 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BPPECT | .3 | -. 3 | -. 3 | -. 2 | . 7 | . 1 | -. 1 |  | -. 3 |  |  | -. 3 | . 2 | -. 3 | -- 1 | . 7 | -. 3 | -. 3 | $\cdot 1$ | -. 3 |  |  |  |  |
| S.8. Pr | . 1 | . 1 | . 1 | 9 | ${ }^{-4}$ | ${ }^{-2}$ | . 2 | 9 | $\bigcirc$ | $\cdot 3$ | $\cdots$ | $\because$ | -4 | . 1 | -1 | . 6 | . 1 | . 0 | : 2 | . 0 | . 3 | . 0 | . 4 | . 2 |
| s.s. shrsct |  | -1 | - | . | $\cdot 3$ | . | . 1 | . | . | . ${ }^{1}$ | . 3 | . 1 | . 3 | .1 | . 1 | . 5 | . 1 | . 1 | . 2 | . 1 | . 3 | .1 | - 3 | . 2 |











| $\underset{\sim}{\text { in }}$－ | $\overbrace{\text { ¢ }}^{\text {¢ }}$ | M $\%-$ | ¢0\％ | － | F： | $\stackrel{\sim}{-7}$ | $\operatorname{som}_{i j}$ | 7\％ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\text { ¢－¢ }}{\text {－}}$ | $9 \%$ | 9n\％ | $\because$ | －90¢ | \％ng | － | －－9\％ | nnn |
| － | － | $\because$ | － | － | $\bigcirc$ | 9 | ～～® | －9\％ |
|  | ¢n¢ | 99. | $9 \times$ | － | 9\％ | nay | －9898 | M |
| － |  | $\because$ | 979 | 9 | － | On¢ | $\xrightarrow[\sim]{\text { ong }}$ | －\％ |
| 990\％ | $\stackrel{\text { ¢ }}{\substack{\text { cim }}}$ | 9 9． | $\square$ | －$=$ | \％ | －\％ | \％ini | －10 |
| － |  | ¢ \％ | \％ | 9an | 9 | － | ¢ | จั่ |
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| － |  | n！．． | 9．an |  |  | － | ¢9ワ． |  |
| － |  | $\because \cdot$ | －\％ | $\cdots$ | $\cdots$ | ワ－\％ | － | ？\％ |
| Ma |  | $\because$ |  | ¢nn |  | $\stackrel{\sim 9}{\sim 9}$ |  | Fimin |
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| $\stackrel{\sim}{\text { opx }}$ |  | $i \sim$ |  | －9\％ |  | nno |  | ？ |
|  |  | 9 |  | 7n9 |  | ¢ิ่ ${ }^{\text {¢ }}$ |  | $\stackrel{\sim}{4-\infty}$ |
| ？${ }_{\text {nex }}^{\text {¢ }}$ |  | Y：－ |  | ¢ |  | $\stackrel{\circ 0 \mathrm{con}}{\substack{\text { m }}}$ |  | 90\％ |
| 39\％ |  | 9.97 |  | －9\％ |  |  |  | － |
| ¢9\％m |  | 9．．． |  | － |  |  |  | －ั่ |
| צ\％ | ヘั่ | \％－－ | ¢ | $\bigcirc$ | ก®\％ | 喜： | － | na |
|  | Mッシ <br>  <br>  |  | \％\％\％ |  | Mo <br> ？ <br> ？N： | ¢ |  |  |
| － | $\xrightarrow{\text { ¢0ำの }}$ | ¢ | ？ | －\％ | － |  | $\xrightarrow[\text { ¢ ¢ }]{\text { ¢ }}$ | － |
| － |  |  |  | ＋ | $\substack{\text { min } \\ \text { in } \\ \text { n－}}$ |  | con |  |


|  |  | Ast. UE |  |  |  |  | H1L8 |  CITY <br>  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 73.3 | 2.2. | -2.4 | ${ }_{\substack{4.2 \\ 2.8 \\ \text { 2 }}}$ | -3.4 | -1.5 |  |  |  |  |  |  |  |  | 87 |  | 2.7 <br> 2. | 6.2 2. 2. 2 |  |  | -5.1 | 2.5 2.2 1.6 | ${ }_{\substack{1.0 \\ 3.1 \\ 3.8}}$ | 1.7 -1.7 3.5 |
| s.1. xprect |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { ETsaciss: } \\ & \text { AGE: } 17 \end{aligned}$ | $\begin{array}{r} 11100 \\ 7 \\ \\ \\ \end{array}$ | $\begin{aligned} & \text { Palvay } \\ & \text { ponse: } \end{aligned}$ | $\begin{aligned} & \text { spre } \\ & \text { DK } \end{aligned}$ | I don | $\begin{aligned} & \text { ne uspa; } \\ & \text { art knc } \end{aligned}$ | .. ${ }^{1}$ | overle | 81098 | at ag | 95 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| epprex | $\therefore 2$ | .2 <br> $: 3$ <br> 2 | : 2 | -2 -8 0 |  | :1 | -1 $\square$ $\square 1$ | -2 -0 01 | - | -8 -8 .1 | :4 | -1 | $\begin{array}{r} -.2 \\ -0 \\ 0 \end{array}$ | -2 -0 -1 | :0 |  | - 20 | -2 -0 -1 | $\because$ | :1 | $\begin{array}{r}-2 \\ -1 \\ \hline 1\end{array}$ | :1 | . ${ }^{\text {: }}$ | -2 - 0 |
| AGE: 4 a |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | .99 | i:2 | -.90 | : 6 |  | : ${ }_{3}$ |  |  |  |  |  |  |  |  | $\begin{array}{r}\text { - } 21 \\ \hline 2 \\ \hline 2\end{array}$ | 1.5 $\begin{aligned} & 1.8 \\ & 1.6\end{aligned}$ | :95 | : 7 | -3 -1 -3 | $\begin{array}{r}-6 \\ \hline 0 \\ \hline 0\end{array}$ | $\begin{array}{r}-.7 \\ \hline 2 \\ \hline\end{array}$ | . 7 | $\begin{array}{r}-9 \\ \hline 0 \\ \hline 0\end{array}$ | $\begin{array}{r}-.3 \\ \hline .3 \\ \hline .3\end{array}$ |
| 16E: 17 | 12 msp | orss: | 00 | no se | aspons |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| crice | $\stackrel{12.9}{9}$ | 1.2 $1: 6$ 1.6 | 2.4. | -2.4 | -7.5 | $1: 4$ | -1.4 | 8.6 $\begin{aligned} & \text { 3.8 } \\ & 3.5\end{aligned}{ }^{\text {a }}$ ( | -3.6 $\begin{gathered}-3.6 \\ 2.8 \\ 2.8\end{gathered}$ | 4.3 3.0 2.8 | ¢ $\begin{aligned} & 1.7 \\ & 2.3 \\ & 2.1\end{aligned}$ | -2.3 $\begin{array}{r}-2 \\ 1.2 \\ 1.2\end{array}$ | 2:0 | -4.3 - 2.1 2.0 | $\begin{array}{r}-1.5 \\ \hline 9\end{array}$ | 9.3 2.7 2.5 | 4.3 | $\underset{1.9}{2.6}$ |  | -3.6 | 3.1 2.1 1.8 | 1.9 1.1 1.0 |  | -1.0 |
| a68: 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sprict | 5.0 | 4.5 2.5 2.2 | : ${ }_{9}$ | ${ }_{1}^{1.7}$ | -3.7 | :9 |  |  |  |  |  |  |  |  | -r.17 | ¢, $\begin{gathered}\text { 7. } \\ 2.8 \\ 2.5\end{gathered}$ | 3.1 $1: 6$ 1.2 | -1.5 | -1.7 | $\begin{array}{r}-2.9 \\ \hline 9\end{array}$ | $1: 0$ | ${ }_{1}^{1: 3}$ | $-1: 4$ $1: 4$ |  |
| A¢¢: 17 | 7 925p | orsi: | 1x* | corra | act Res | $34:$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $54.3$ | 6.3 $1: 3$ 1.6 | -1.5 | -1.5 | 7.7 3.1 2.5 | -i:9 | : $1: 8$ | -1:18 | -8.8 | 4.0 8.7 4.2 | 2.3 | - $\begin{gathered}-2.8 \\ 2.5 \\ 2.2\end{gathered}$ | -3 $3: 4$ 3.0 | 12.3 3. 3.6 |  | -15.7 3.1 2.7 | - $\begin{gathered}12.2 \\ 3.9 \\ 9.0 \\ 4\end{gathered}$ | -6.6 a 3. 2. | $\stackrel{-9}{1.9}$ | 5.9 | 5.1 3.3 2.7 | - $\begin{gathered}-4.7 \\ 2.0 \\ 1.8\end{gathered}$ | - $\begin{gathered}-1.6 \\ 2.2 \\ 2.2\end{gathered}$ | 3.9 2.7 2.3 |
| s.s. Rerict 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{gathered} 67.6 \\ 1.3 \end{gathered}$ | 9.6 3.6 3.3 | $\begin{array}{r}-5.1 \\ \text { a } \\ 2.1 \\ \hline 1\end{array}$ | 2.9 2.9 1.9 | 8.2 2. 1.9 | 1.2 $1: 6$ 1.3 |  |  |  |  |  |  |  |  |  | -18.8 4.9 4.5 | - $\begin{gathered}\text { - } \\ 2.5 \\ 2.4 \\ 2.4\end{gathered}$ | 1.19 3 | -3.4 | 5.6 | 2.3 ${ }_{\text {2. }}^{2}$ | 2:2 | -3.1 $\begin{gathered}-3 \\ 2.2 \\ 2.5\end{gathered}$ | ( $\begin{aligned} & \text { 2.7 } \\ & \text { 2. } \\ & 2.5\end{aligned}$ |
| 16E: 17 | 48sp | mise: | 2 x | Incos | rect | -n** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }_{3}^{32.6}$ | 4.8 | -1.0 -1.1 | 9.0 2.4 2.0 | -7.3 $\substack{2.8}$ | $-1.1$ | 1.1 | -7.3 | ${ }^{12.6}$ | -8.1 2.9 | -1.7 2.3 | 5.0 2.8 | 2.9 | -7.8 2.7 2, | 7.8 |  | ${ }^{8.1} 8$ | 6.2 3.0 | 2.23 | ${ }_{1.7}^{2.5}$ | $\begin{array}{r}-7.9 \\ 2.2 \\ \hline\end{array}$ | 6.6 2.2 | 2.7 | -2.7 2.2 |
| S.1. Prficy |  | 2.0 |  | ${ }_{2}^{2.0}$ |  |  |  | 4.7 |  | 2.7 | ${ }_{2.2}^{2.3}$ | 2.8 | 2.9 | 2.7 2.6 |  |  | 3.6 3.6 | 3 | ${ }_{1}^{2.6}$ |  | 2.28 | 1.7 | 2 | 2.20 |
| 161: Ad |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }_{1}^{26.6}$ | 4.2 | 6.0 2.3 2.3 | -4.2 | -4.1 2.4 2.0 |  |  |  |  |  |  |  |  |  | -1.4 |  | 1.0 2.6 2.4 | 3. ${ }^{3} \mathbf{2}$ | 2.0. | -3.1 | 2.6 | - 1.2 | 5.0 2. 2 | 3.7 |
| s. ${ }^{\text {. errscr }}$ |  | 3.6 | 2.1 | 1.8 | 2.0 |  | 1.2 |  |  |  |  |  |  |  |  |  | 2.4 | 3.3 |  |  | 2.2 | 1.6 | 2.3 | 3.0 |


| Agr: 17 | atsponst: | סк | I don | ${ }^{\text {k }}$ koo |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\therefore 1$ <br> 1 | - 0 | $\stackrel{1}{-2}$ | $\because 1$ | - ${ }^{2}$ | -1 -1 | -2 -0 -1 | -2 -1 0 0 | $\begin{array}{r}-2 \\ -1 \\ \hline 1\end{array}$ | : 9 | $\begin{array}{r} -\because 2 \\ \because 0 \\ \because 0 \end{array}$ | $\begin{array}{r} -\theta^{2} \\ \because 0 \end{array}$ | -2 -8 -1 | $\begin{array}{r} \because 1 \\ \because 1 \end{array}$ | :4 |  |  | :3 | $\because 1$ | $\begin{array}{r}-2 \\ -1 \\ \hline 1\end{array}$ | -28 | :9 | $\begin{array}{r}\because 2 \\ \hdashline 0 \\ \hline 1\end{array}$ |
| igez at |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| errect | 1.0  <br> -3 1.4 <br> 1.3  | -.84 | $\stackrel{-2}{2}$ | $\cdots$ | . 5 | $\because{ }^{-3}$ |  |  |  |  |  |  |  | $\because 1$ | 1.2 | $-1$ | . 9 | . | -.7 | 9 | 96 | $-{ }^{-8}$ | $-{ }^{-8}$ |
| S.E. ${ }_{\text {s.en }}^{\text {Stect }}$ | ${ }^{-3} \quad 1.18$ | :4 | $i_{3}{ }^{2}$ | $\mathrm{C}_{3}^{2}$ | . 3 | - $\mathbf{- 3}^{\mathbf{3}}$ |  |  |  |  | , |  |  | $\mathrm{O}_{2}$ | 1.7 | : 2 | : 6 | - 4 | $\overbrace{3}$ | . 7 | 8 | . 3 | $8{ }^{-3}$ |
| AGr: 17 | ersponse: | 00 | Ho | sponse |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eppect 11 | 11.8 | $\stackrel{.8}{9}$ | -1.8 | $\because 2$ | 1.2 | $-1.2$ | 4.6 | -2.6 | ${ }_{3}^{3.3}$ | 1.5 | -1.5 | . 5 | -3.8 | -1.1 | 7.0 | 4.9 | $\therefore$ | $\therefore$ | -3.9 | 1.5 | 1:9 | 1.5 |  |
| s.E.E. Prpect | . ${ }^{\text {a }}$ : 1.6 | $\stackrel{2}{1.9}$ | ${ }_{1.3}^{1.6}$ | : $1: 1$ | ${ }^{1} \mathbf{8}$ | 1:8 | 3:8 | 2.4. | ${ }_{2}^{2.4}$ | 2.3 | 1:0 | 1.6 | ${ }_{2}^{2.1}$ | :489 | ${ }_{2}^{2.5}$ | ${ }_{2.8}^{3.1}$ | 3:9 | $1: 4$ | :7 | $1: 5$ | 1:0 | 2.0 1.7 | 1:7 |
| AGE: Md |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eppret | 5.1 <br> -8.4 <br> 2.6 | 7 | . 7 | -3.1 | -9 | -. 9 |  |  |  |  |  |  |  | -1.2 | ${ }^{9.1}$ | 2.99 | -1.3 | -1.3 | -2.3 | 2.4 | $\therefore 1$ | $-1.4$ | -1.0 |
| S.E. Prpert | ${ }^{-8} \quad \begin{aligned} & 2.6 \\ & 2.3\end{aligned}$ | 1:0 | 1.4 | :1:4 | :9 | -9 |  |  |  |  |  |  |  | $\bigcirc$ | 3.3 | i.1 | $\because$ | 1:7 | :8 | $\stackrel{2}{1: 7}$ | 1:1 | $1: 4$ | 1:6 |
| 46: ${ }^{\text {\% }} 17$ | nesponse: | $1 \times$ | corr | Rns | : | one |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 59.9  <br> 1.3 -9.1 <br> 1.4  | 2.9 | 2:38 | ${ }_{5}^{5.6}$ | $\because 6$ | 1.5 | -9.4 | $\stackrel{-6.8}{5.7}$ | -8.6 | -1.9 | -1.1 | ${ }_{3.3}^{2.4}$ | 14.6 3.6 |  | ${ }_{3}^{19.9}$ | - $\begin{gathered}14.5 \\ 3.2\end{gathered}$ |  | -1.7 | 7.9 | 2.1 | $\stackrel{-2.9}{2.9}$ | -3.7 2.7 | 5.2. |
| S.E. EPrect | $1.3 \begin{aligned} & \text { 2. } \\ & \text { 2, }\end{aligned}$ | 2.1 | 2.2 | ${ }_{2.0}^{2.3}$ | 1.9 | 1.4 | 4. ${ }^{\text {a }}$ | 5.5 | 4.4 | 3.0 | 2.0 | 3.0 | 3.5 3.5 | $\stackrel{1}{ } \times$ | 3.3 | 3.2 | 2.5 | 1.5 | 1.3 | 2.4 | 1.8 | 2.5 | 2.3 |
| ACt: $x^{\text {d }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eprect 6 | 65.4 9.9 .5 | -2.1 | ${ }^{2} .8$ | 5.2 | 1.8 | $-1.7$ |  |  |  |  |  |  |  | 2.0 |  | -2.7 | -3.4 | . 7 | 7.4 | 7.4 | -2.3 | 1.7 |  |
| S.E. P. Prper | $1.4 \quad 3.8$ | 1.9 | ${ }_{2}^{2.2}$ | 3.15 | ${ }_{12}^{2.0}$ | ${ }_{\text {2: }}^{1} \mathrm{~S}$ |  |  |  |  |  |  |  |  | 4:3 | ${ }^{3.3}$ | 2.9 | 3:1 | 2.5 | 4:19 | ${ }_{10}^{2.1}$ | 3.5 | 2.5 2.2 |
| A6: $\quad 17$ | nesponst: | 2 x | inco | ract | onses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Epprct 20 | 28.4  <br> 1.0 7.2 <br> 2.1  | $-1.8$ | 1.4 | -5.3 ${ }_{\text {cher }}$ | 7.7 | $\therefore .7$ | 5.0 3.3 | 9.5 | -2.5 4.8 | 2.6 | 2.88 | -2.7 2.6 2.6 | -10.7 3.0 | -1.8 | 12.4. |  | 2.98 | 1.9 | -4.0 | - $\begin{array}{r}-3.4 \\ 2.6 \\ 2.6\end{array}$ | 4.5 | 1.2. | -4.7 |
| s.E. Pr mpect | 1.0 <br>  <br> 1.9 | 1.7 | 2.0 | ${ }_{1: 8}^{2}$ | : 1 | ${ }^{1} \cdot 8$ | 3.7 | 4.4 | 4.8 4 | 2.5 2.4 | 1.8 | 2.5 | 3.9 | $\cdots$ | 2.4 | 3.5 | ${ }_{2.3}^{2.6}$ | 1:5 | 1.2 | ${ }_{2.2}^{2.6}$ | 1.:5 | ${ }_{10}^{2.3}$ | ${ }_{1: 8}^{20}$ |
| AG3: Ad |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\underset{\substack{\text { erpect } \\ \text { S.E. P }}}{27,5}$ | $\begin{array}{ll}27.5 \\ 1.4 & 3.7 \\ 4.2\end{array}$ | 2.9 2.0 | -3.7 2.6 | -1.4 2.9 | $\xrightarrow{-2.6} \begin{array}{r}\text { 2. } \\ 2.1\end{array}$ | 2.5 2.2 |  |  |  |  |  |  |  | 7.5 | ${ }_{\substack{3.8 \\ 3.8}}$ | -3.0 | ${ }_{3}^{4.1}$ | $2: 4$ | -4.5 2.9 | -9.9 | ${ }_{2}^{1.7}$ | 3.5 | 4.6 |
| s.E. zprict | . 3.6 | ${ }_{2}^{2.0}$ | 2.2 | 2.4 | 1.6 | 1.5 |  |  |  |  |  |  |  | . 5 | 3.6 | 2.4 | 3.1 | 2.5 | 2.4 | ${ }_{2.4}^{2.6}$ | 1.6 | 3.4 | 3.15 |



| spiect <br>  | $\begin{array}{ll}3.0 \\ -4 & 1: 0 \\ 0\end{array}$ | -.4 | -1.3 | :97 | -8 ${ }_{-6}$ |  | 1:10 | $\begin{array}{r} -1.7 \\ : 9 \end{array}$ | 3.9 $1: 3$ | 2.1 $1: 3$ 1.3 | $\begin{array}{r} -1.0 \\ -5 \\ \hline .5 \end{array}$ | -1.3 -5 | $\begin{array}{r} -1.2 \\ 76 \\ \hline 6 \end{array}$ | $\begin{array}{r}-9 \\ \hline 8 \\ \hline 2\end{array}$ | 5. 2.2 $i .5$ | $\begin{aligned} & 1.6 \\ & 1: 4 \\ & 1: 2 \end{aligned}$ | ${ }^{1} \mathbf{1} / 2$ | $\begin{array}{r}-1.1 \\ -5 \\ \hline 5\end{array}$ | -1.8 | 1.2 | $\begin{array}{r}-9 \\ \hline .5\end{array}$ | 1.6 $1: 2$ 1.0 | $\begin{array}{r}-1.6 \\ \hline 4\end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 162: 1 d |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} 2.5 & \begin{array}{c} 3.9 \\ .6 \\ 1: 8 \\ 1.8 \end{array} \end{aligned}$ | $\begin{array}{r} -1.5 \\ -5 \\ .6 \end{array}$ | 1:4 | -1.5 .8 .8 | 81 $\therefore 6$ | -1 -8 -8 |  |  |  |  |  |  |  | $\begin{array}{r}-9 \\ \hline .9 \\ \hline .9\end{array}$ | 7.0 2.6 2.4 | 3.0 1.8 1.0 | $\begin{array}{r}-1.4 \\ \hline 6\end{array}$ | $\begin{array}{r}-1.5 \\ \hline 9\end{array}$ | $\begin{array}{r}-2.3 \\ \hline 2 \\ \hline 6\end{array}$ | $\begin{array}{r}-.7 \\ \hline 8\end{array}$ | 1.3 1.6 | .78 | -6 $i \because 2$ $i .0$ |
| AGE: 17 | nesponse: | 10 | no | drrect Res | responses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| erysct |  | 1:9 |  | -3.8 1.5 1.3 | 7 | 1:7 | 1.7 2.9 2.6 | 2.4. | 1.4. | - $\begin{array}{r}-1.2 \\ \text { and } \\ 2.2 \\ \text { 2.0 }\end{array}$ |  | 1.9 | -7.5 2.8 2.1 2.1 | -2.3 | 16.4 | e. 2.7 2.6 | 5.7 S. 2.5 2.4 | 2.1. | -5.3 | :98 | 1:1 | -1.4 | -1.2 |
| Acs: 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{ll} 9.7 & \begin{array}{c} 5.9 \\ 2.9 \\ 2.9 \end{array} \end{array}$ | -7i:3 | 1.5 1.4 1.3 | -2.9 |  | 1.3 1.6 .6 |  |  |  |  |  |  |  | -1.9 | 7.3 4.8 4.5 | 3.2 2.3 1.7 | 3.5 2.6 2.4 | -1:4 | -5.4 | 2.6 | 1.7 ${ }_{\text {1.7 }}^{1.7}$ | -2.0 a 2.0 2.0 | -1.7 1.5 1.4 |
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| $\begin{aligned} & \text { Epryct } \\ & \text { s.E.E. } \\ & \text { s.E. Efrsct } \end{aligned}$ | $\begin{array}{cc} 22.9 & 5.5 \\ 1.1 & 2.1 \end{array}$ | $\begin{array}{r} -2.7 \\ 2.5 \\ 2.5 \\ 2.5 \end{array}$ | 2.0 2.2 1.7 | -3.8 | 1.59 | $\begin{array}{r}-1.6 \\ \hline 1.9\end{array}$ | 10.0 4.1 3.8 | 10.6 3 3.6 3.5 | -6.7 and 2.6 | 2.40 | 2:3 | -4.1 2.1 2.3 2.1 | -7.0 1.9 1.7 | - 7 | 4.6 3.7 3.4 | ¢ $\begin{gathered}10.6 \\ 3.5 \\ 3.4\end{gathered}$ | 5.4. | $\stackrel{\square}{i: 2}$ | -3.6 | -2.6 | 3.19 | 2. ${ }_{\text {2. }}^{2.0}$ | -4.0 2.1 1.8 |
| 168: 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| yprer | $\ldots{ }^{-2}$ | 4.4 | $-1.8$ | -2.6 | -3.0 | 2.9 |  |  |  |  |  |  |  | -. 9 | 7.3 | $-1.8$ | -9 | 1.8 | -1.3 | -3.3 | $\square \cdot 7$ | -2.9 | 7.0 |
| S.E. ${ }_{\text {serfict }}$ | ${ }_{2}^{2.2}$ | 2.3 | 1.7 | ${ }_{1.8}^{2.2}$ | 1.3 | 1.5 |  |  |  |  |  |  |  | : $: 1$ | ${ }_{2}^{3.9}$ | 2.4 | 2.15 | 2.2 | ${ }^{3} \mathbf{3}: 1$ | 2:9 | 1.7 | ${ }_{2.3}^{2.4}$ | ${ }_{2.3}^{2.6}$ |
| 168: 17 | 215POMs: | 12 | Two | rrect R | Response |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { sprict } \\ \text { s.z. } \end{gathered}$ | 28.9 .8 <br> 8 2.0 | 2.8 | -2.0 | -7.6 | . $\cdot 7.3$ | 7.7 | 9.2 | 3.9 3.9 | -2.3 2.4 2.4 | -1.0 | . 7.6 | ${ }_{-1.7}^{\substack{2.7 \\ 2.4}}$ | 2.9 ${ }^{2}$ | . 6 | -4.4 2.8 | - 2.7 | 5.3 3.0 | $\therefore 8$ | $-1.2$ | 7:9 | . 8.5 | 2.9 | 7.7 |
| A68: ad |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 8 P 7 \mathrm{BCC} \\ & \mathrm{S.B.p} \end{aligned}$ | $\begin{array}{cc}35.6 \\ 1.9 & 4.8 \\ 4.4\end{array}$ | -2.5 2.1 2 | 5:1 | -3:0 |  | -1.2 2.6 |  |  |  |  |  |  |  | 2.8 | 5. 9 | 7.0 <br> 4.1 | 3.5 | ${ }_{-}^{-2.2}$ | -8.6. | 3.3 | 3.9 | 6.1 2.9 | -6.7 2.3 2.3 |
| s.e. brpict | 4.0 | 2.4 | 3.9 | 2.8 | 2.0 | 1.9 |  |  |  |  |  |  |  | $\cdot 7$ | 4.8 | 2.7 | 3.9 | 2.6 | 2.9 | 3.2 | 1.9 | 3.5 | 2.3 |
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| ${ }_{\text {chem }}^{\text {grper }}$ | $\begin{array}{rrr}24.4 \\ 1.2 & -9.3 \\ 1.6\end{array}$ | -1:4 | 3.3 2.5 | 3.5 | -1.00 | $1: 8$ | -11.9 | -9.9 | 8.6 | 2.5 | $-1.3$ |  | ${ }_{3} 9.2$ |  | 19 |  |  |  |  |  |  |  | 7.9 |
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| $1 \cdot 1$ | 0.6 | $6^{\circ}$ | $5 \cdot 1$ | ${ }_{8}$ | $\varepsilon \cdot 6$ | ${ }_{\varepsilon}^{1} \cdot 1$ | 9.6 | n－i | ${ }_{9}$ | ${ }_{8}^{8 \cdot 6}$ | $\underline{8} \cdot 1$ | 6\％ | $6^{60}$ | $\because 2$ |  |  | $9{ }^{9}$ | 10 | $2 \cdot 1$ | $\because$ | 6 ＊ | 0.1 | cosade－g．s |
| $8 \cdot 1$－ | $\varepsilon{ }^{\circ}-$ | $8 \cdot$ | $9 \cdot \varepsilon$ | $2 \cdot 1-$ | 8. | g－－ | ：－ | $9{ }^{\circ}$ | $0^{\circ}-$ | $2 \cdot$ | － | 5．－ | 2：－ | $\stackrel{1}{9}$ |  | ${ }_{8}^{8 \cdot \varepsilon}$ | $8{ }^{8}$ | 50．－ | 5－1 |  | $6^{\circ}$ |  | dica -8.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | s＇z－ |  | $6^{\circ} 6^{\circ} 5$ | Lכy ${ }^{\text {dax }}$ |
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| ${ }_{\boldsymbol{\varepsilon}}^{\boldsymbol{\varepsilon} \cdot \boldsymbol{\varepsilon}}$ | $9 \cdot 2$ 9.2 | 8.1 $1-2$ | ${ }^{9.8}$ | 20． | 80.1 | $\varepsilon \cdot \tau$ |  | $8{ }^{8.6}$ | $5{ }^{\circ}$ | $0 \cdot 0$ | $9 \cdot \varepsilon$ | 6.1 | $0 \cdot \varepsilon$ | $2 \cdot n$ |  |  |  |  |  |  |  |  |  |
| \％ | $\mathrm{z}^{-2}$ | \＆－－ | i－2－ | ${ }_{9} 96$ | ${ }_{\varepsilon}{ }^{-2}$ | 1 | $\stackrel{8}{n} \boldsymbol{\square}$ | ${ }_{9}^{5 \cdot 91}$ | ${ }_{\varepsilon}^{2} \cdot \frac{1}{\varepsilon}$－ | ${ }_{\text {\％}}^{0 \rightarrow 0}$ | $\stackrel{0 \cdot 0}{\square}$ | 2：\％ | 6.2 | 1：8 | $1 \cdot 2$ | L－ | $8 \cdot 6$ | $8 \cdot 1$ | \％－\％ | $5 \cdot 1$ | ${ }_{9} 9$ |  |  |
|  |  |  |  |  |  |  |  |  | $\varepsilon$ ¢ | どが－ | $\varepsilon \cdot 2$ | －$¢$－ | $\varepsilon \cdot \square$ | $\stackrel{ }{ }{ }^{\text {c }}$ | $0 \cdot 11$ | でとし | $6 \cdot 2$－ | $1 \cdot \varepsilon$ | 0．5－ | 9.1 |  |  | diars |
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| ${ }^{\varepsilon} \cdot \underline{ }$ | 99 | 80.1 |  | 8：1 | $8 \cdot 1$ | $\varepsilon \cdot 2$ | $9 \cdot 2$ | $8 \cdot 1$ | 5. | $0 \cdot 1$ | $9 \cdot \varepsilon$ | 6.1 |  |  |  |  |  |  |  |  |  | － 0 －zasa |  |
| \％ | － | ！\％ | － | 6：1 | $2 \cdot 8$ | $10^{1}$ | ${ }_{6}^{6.2}$ |  | 2．1 | 0 | $0 \cdot 0$ | $2 \cdot 2$ | $6 \cdot 2$ | ：\％ | i． 2 | ${ }^{2} 2$ | ${ }_{8 \cdot 1}$ | ${ }_{8}^{1 \cdot 6}$ |  | 8.1 | 5 | ${ }^{8}$ |  |
|  |  |  | 0.2 | 2.6 | で－ | －0， | －¢－ | 0．L6－ |  | ¢．61 | 5．2－ | ${ }^{6} \cdot \underline{8}$ | 2－1－ | $0 \cdot$ | －ใ－ | L• $\varepsilon_{1}$－ | 6.2 | －$\varepsilon$－ | $0 \cdot 5$ |  | ${ }_{9} 9$ |  | ${ }_{\text {dion }}$ |
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168: 17





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| \％ | nor． | －inn |  | $\underbrace{\infty}_{i} \because$ |  | $\stackrel{\infty}{\square} \times$ | 70 | $\because \because$ |


二







|  | EEGIOM |  |  |  |  |  |  <br>  |  |  |  |  |  |  | zacs <br>  |  | parkits bich school zd |  |  |  | sIG SIzE OF cosmon ITY $\quad$ CITY CII_PLACE_GITI__EREE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 168: 09 | Esppouss: | 00 | Mo nes | esponse |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| appicr <br> 5. I. P. Bryect | $\begin{array}{rr}6 & -2 \\ -2 & -2 \\ & -3\end{array}$ | -.3 -2 -2 | : <br> 7 <br> 5 | -8 <br> -2 <br> -2 | . ${ }^{\text {. }}$ | -.5 -1 | $\begin{aligned} & 1.0 \\ & 1: 1 \\ & 1: 0 \end{aligned}$ | $\begin{array}{r}-.6 \\ \hline 0 \\ \hline 2\end{array}$ | .5 .6 | -8 <br> 2 <br> 2 | $\begin{array}{r}-2 \\ -3 \\ \hline 8\end{array}$ | -88 | $\begin{array}{r}-.6 \\ \hline 8\end{array}$ | -1 -1 | . 6 | $\because$ $\because$ .5 | :0 | - | $\begin{array}{r}-1 \\ \hline 2\end{array}$ | . 5 | $\begin{array}{r}-.3 \\ \hline 2 \\ \hline 2\end{array}$ | - $\begin{array}{r}\text { - } \\ \text { 2 } \\ \text { 2 }\end{array}$ | :7 |
| 168: ${ }^{13}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sppict <br> S.E. P. Ppisict | $\begin{array}{rrr}.2 & -0 \\ -1 & -1\end{array}$ | - ${ }_{\text {- }}^{2}$ | - <br> 2 <br> -2 | -0 -1 | :01 | -0 -1 | .5 .6 .5 | -2 -0 -1 | -2 $\because 0$ $\square 1$ | :2 | $\begin{array}{r}-.0 \\ \hline 2 \\ \hline 2\end{array}$ | -.0 <br> .2 <br> -2 | -2 -1 | -2 -1 | : ${ }_{\text {: }}^{6}$ | -8 $\therefore 4$ | $\begin{array}{r}-2 \\ \square \\ \hline 1\end{array}$ | $\overbrace{2}^{1}$ | -2 -1 | $\stackrel{1}{3}$ | -1 -1 -1 | : <br> 2 <br> 2 | -1 $\because 1$ |
| AGE: 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{rr}.7 & -.5 \\ -3 & -1 \\ -3\end{array}$ | -98 | -.6 -1 .3 | : 3 | .2 .4 .2 | -.2 -2 .2 | $\begin{array}{r} \because 7 \\ \because 0 \\ \because 3 \end{array}$ | -.5 -2 .3 | -.3 -3 -4 | - 9 | $\begin{aligned} & \therefore 7 \\ & \because: 8 \end{aligned}$ | $\begin{array}{r} \because 7 \\ \because 0 \\ \because 0 \end{array}$ | . 7 | $\xrightarrow{-3}$ | $\begin{array}{r}-.3 \\ -4 \\ \hline .5\end{array}$ | $\begin{array}{r} -\quad 3 \\ \because 4 \\ \because 2 \end{array}$ | $\begin{array}{r}-.7 \\ \hline 0 \\ \hline 0\end{array}$ | -.6 -1 -2 | .8 .6 .6 | -. ${ }^{\text {: }}$ | -8 | -.0 -3 .4 | $\begin{array}{r}-.5 \\ \hline-3 \\ \hline .3\end{array}$ |
| AGE: 1 d |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EPPECT <br> 5.8. 8 | $\begin{array}{ll}1.1 & \begin{array}{l}2.0 \\ 1: 3 \\ 1.1\end{array}{ }^{\text {a }}\end{array}$ | - 2 | -3 | -.8 .3 .3 |  | -.5 -2 .3 |  |  |  |  |  |  |  | $\stackrel{.}{-6}$ | 4.2 1.9 1.7 | $\begin{array}{r}1.8 \\ \hline .6\end{array}$ | -.3 .7 | -.9 .3 .3 |  | : 9 | $\begin{array}{r}-7 \\ -3 \\ \hline .3\end{array}$ | .1 .5 | -.8 -1 .3 |
| $\begin{aligned} & \text { 5.8. IPPRCT } \\ & \text { AGE: } \end{aligned}$ | essponss: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\underset{\substack{\text { sppict } \\ \text { s.j. }}}{36}$ | $\begin{array}{cc} \begin{array}{c} 36.0 \\ 1.5 \end{array} & -7.1 \\ 3.3 \end{array}$ | $3.0$ | $\begin{aligned} & 3.6 \\ & 3.5 \end{aligned}$ | $\begin{gathered} \mathbf{5} .1 \\ 2.1 \\ \hline 2 \end{gathered}$ | $\because 1$ | $2: 10$ | - $\begin{gathered}-12.3 \\ \substack{2.6} \\ 3.6\end{gathered}$ | -9.4 | $\square$ | -1.5 | -1.9 2.3 2.3 | 2.8 3.2 3.9 | 20.0 | 3.7 ${ }^{-1}$ | -17.2 | -13.1 | -2.8 | - $\begin{gathered}-3.0 \\ 2.3 \\ 1.9\end{gathered}$ | ${ }_{\text {a }}^{2.0}$ | -1.9 | -4.1 | - $\begin{array}{r}\text { 3. } \\ 3.6 \\ 3.6\end{array}$ | 7.9 4.3 3.6 |
| AGE: 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\underset{\substack{\text { zrpact } \\ s .5}}{ } 77$ | 77.8  <br> 8 -9.8 <br> 2.3  <br> 2.3  | $\stackrel{2.2}{1.3}$ | 4.1 <br> 1.9 <br> 1.6 | 3.0 1.6 1.6 | -2.0 | 1.9 | -5.3 3.3 3.3 | -5.2 3.1 3.1 | 2.5 2.9 2.9 | - $\begin{array}{r}\text { 3. } \\ 2.8 \\ 2.2 \\ 2.0\end{array}$ | -1.9 -1.8 1.6 | 2.1 2.1 1.8 | 2.5 $1: 6$ 1.7 | 2.0 ${ }^{9}$ | -11.3 | -13.1 5. 5. | -7.0 3.0 3.9 | $1: 6$ | 5.2 1.2 1.1 | -7.3 | -2.5 | 1.9 2.2 2.0 | 2.9 <br> i. <br> 1.4 |
| 168: 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | -1.8 1.9 1.9 | 1.7 1.6 1.3 |  | -181 | ${ }^{1.1} 1$ | -1.8 -8.3 4.2 | 3.0 2.4 2.4 | ${ }_{\text {a }}^{2.7}$ | - $\begin{array}{r}\text { a } \\ 2.9 \\ 2.5\end{array}$ | -1.1 rem 1.8 | -1.0 | 1.5 $1: 8$ 1.8 | :9 | -7.2 2.6 2.4 | -5.4 - 2. 2.7 | 2.7 $\substack{2 \\ 1.8}$ | $1: 6$ 1.6 1.3 | 2.7 $1: 3$ 1.0 | -7:8 | - 71.0 | 1.6 2.8 2.4 | -1.2 -1.5 1.4 |
| 168: 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r} 75.0 \\ 1: 8 \\ \left.\begin{array}{r} -12.1 \\ 2.9 \\ 2.9 \end{array}\right) \end{array}$ | $\begin{aligned} & -.4 . \\ & 3.4 \\ & 3.5 \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 2.3 \\ & 2.4 \end{aligned}$ | 1.7 3.6 3.0 | 3.1 | -3.0 2. 1.0 |  |  |  |  |  |  |  | 1.3 1.8 .6 | -7.4 | cher $\begin{gathered}-4.6 \\ 2.5 \\ 2.5\end{gathered}$ | 3.0. | ¢ $\begin{aligned} & 1.5 \\ & 3.2 \\ & 2.2\end{aligned}$ | 3.1 3.2 3.2 | - $\begin{gathered}-1.2 \\ 3: 4 \\ 2.9\end{gathered}$ | - ${ }_{\text {- }}^{2.5}$ | 5.3 4.6 $i .6$ | -2.7 5.0 4.3 |
| 168: 09 | RISPonsz: | $41 *$ | correct | ct InSu | rence and | and adeq | dquate de | fense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| eppsct <br>  | $\begin{array}{rrr}1.4 & -.8 \\ -3 & -3 \\ & -4\end{array}$ | $\begin{aligned} & : 7 \\ & : 6 \end{aligned}$ | .8 | .- <br> -4 <br> 8 | -.5 -3 -3 | .5 ${ }_{\text {: }}$ | ':8 | 1:00 | - 3 | $\begin{array}{r}\because 6 \\ \hline .5\end{array}$ | $\begin{array}{r}-66 \\ \because 3 \\ \hline 4\end{array}$ | $\therefore 9$ | $\therefore 8$ <br> 8 |  | $\begin{array}{r}-1.0 \\ \hline 3 \\ \hline 8\end{array}$ |  | $\underline{8} 8$ | :6 | : 0 | -: | -8 -4 -4 | -2 .8 .8 | $1: 19$ |


| EFPECT <br> S.R. p <br> S.E. BPPECT | $\begin{array}{rr} 10.3 \\ : 8 & -1.2 \\ 1.6 \\ 1.4 \end{array}$ | -1.9 $1: 0$ $1: 4$ | ${ }^{9} 8$ | 3.08 | -2.2 | 2.2 10.0 $: 6$ | 1.8 -1.6 1.6 | -1.7 - 2.7 2.2 | 2.4. 2.5 2.5 | 2.0. 2.0 | -1.7 -1.3 1.1 | 1.7 | ¢ $\begin{aligned} & 1.3 \\ & \substack{\text { 2. } \\ 2.3}\end{aligned}$ | :9 9 -4.5 | 3.3 3.4 3 | -2.9 | ${ }_{1}^{2.2}$ | $1: 5$ | $\cdots$ | -1.7 | 2.9 | ${ }_{1}^{2.9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| s.x. sfzer ${ }_{\text {agr }} 17$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sppact | 26.8 -2.0 | -2.4 | 1.7 | 1.4 | -5.1 | 5.2 | -7.1 | -6.2 | -. 3 | -1.0 |  | 4.0 |  |  |  |  |  |  |  |  |  |  |
| S.E. Prper | 1.4 $\begin{aligned} & \text { 1.8 } \\ & 2.0\end{aligned}$ | 2.6 | 3.4 | ${ }_{2}^{2.5}$ | i. ${ }^{1.5}$ | 1.19 | ${ }_{2}^{2.8}$ | ${ }_{5}^{6.4}$ | 2.3 | 2.1 2.2 | ${ }_{1.8}^{2.0}$ | 3.0 2.5 | 4.8 | 1.5 2.3 <br> .4 2.5 | $\underbrace{\text { a }}_{\substack{3.8 \\ 3.8}}$ | 2.1 | $\stackrel{1}{1+5}$ | ${ }_{2}^{2.6}$ | $\xrightarrow{-2.0}$ | -1.3 | i.9 | 5.1 2.8 2.2 |
| AGE: AA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| erpect |  | -1.6 | 9.9 | 3.5 | 2.8 | -88 |  |  |  |  |  |  |  | 2.9-19.0 |  |  |  |  |  |  |  |  |
| S.E. zrymit | (1) ${ }^{2.6}$ | 2.6 | 2.2 | 3.6 | 1.2 | 1.1 |  |  |  |  |  |  |  | $\begin{array}{ll}1.7 \\ & 2.7 \\ 2.7\end{array}$ | ${ }_{2.3}^{2.1}$ | 3.2 2.9 | 3.5 ${ }^{\text {3. }}$ 3 | cos | ${ }_{2}^{3.2}$ | 2.28 | 8.5 | 3.1 |


[^0]:    $\perp_{\text {Measurement error }}$ stems from three sources: (1) the measuring instrument--in our case, the exercises--may have imperfections such as ambiguity or a built-in tipoff to the correct response; (2) the respondent's physical condition (permanent or temporary) emotional or attitudinal condition (again permanent or temporary), and motivation; and (3) the measurement situation--temperature, lighting, pleasantness of surroundings, noise level and the test administrator. The first two errors tend to be constant from group to group and do not affect comparisons.
    ${ }^{2}$ See chapter 10 and appendix C, General Information Yearbook (02-GIY) for a discussion of samplng error.

[^1]:    $l_{\text {The }}$ panelists were: Lois Josephs Fowler of Carnegie-Mellon University, James E. Miller of the University of Chicago, Norine Odland of the University of Minnesota, Dorothy Shaw of the Denver Public Schools, and David Sohn of the Evanston Public schools.

[^2]:    *"First Snow," by Marie Louise Allen, reprints; by permission of Harper and Row.

[^3]:    *"Hope," by Emily Dickinson. Reprinted by permission of the publishers and the Trustees of Amherst College from Thomas H. Johnson, Editor, The Poems of Emily Dickinson, Cambridge, Mass.: The Balknap Press of Harvard University Press, Copyright, 1951, 1955, by the President and Fellows of Harvard College. Dermission also received from Little, Brown and Company.

