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ABSTRACT
This is the thifu in a series of investigations, conducted at five-year intervals, into the testing programs of Aichigan school districts. The report opens with general data on testing proyrams and practices in the form of a tabulation of resyonses to a survey instrument completed by 84 of the districts that opecate a $K-12$ program. A more specitic look at operational content follows, with attention dilected to the tests given, how they are administered and scored, availability of results, and the norms used. The number of districts using a specific test, the trequency of its use, and the situation in which it is used are then reviewed. Finally, the report atterpts to assess the causal nature of some of ihe testing practices by reviewing certain information in conjunction with other information. By, for example, relating the uses of test data to the ways in which teachers learn about the data. Rosponses are reported variously as raw values. percentayes, or weighted values, the identity being specified at each reference point. (Authur, CK')


## MJCHIGAN SCHOOLS:

## THE ORGANIZATION AND

## MANAGEMENT OF THEIR

## TESTING PROGRAMS 1970

## U S. DEPARTMENT CF HEALTH. EDUCATION <br> G WELFARE <br> OFFIEE OFEDUCATION

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A study conducted by the Michigan Schrol Testing Service, Bureau of School Services, The University of Michigan

## FOREWORD

In 1958-59, the Michigan School Testing Service division of The University of Michigan's Bureaid of School Services co-sponsored, with the Michigan Association of Secondary Schnoi Principals, a comprehensive study inquiring into the nature of X-12 school testing programs throughout the State of Michigan. This was fcllowed in 1963.64 by a similar comprehensive testing survey.

As a result of requests from directors of schiol testing programs, the Bu:eau's Michigan School Testing Service is pleased to announce a third study, the rtsults of which are summarized in this booklet.

Preparing reports of this nature is but one of several services offered to school districts by the Michigan School Testing Service. The main purpose of the Bureau's testing service is is provide administrators, guidance and testing directors, counselors, and teachers with information that will he of help in making their testing programs more meaningiul and helpful.

Special recognition tor the preparation of this booklet should be given to Richard Watson, actirig director of the Michigan Schoo! Testing Service, and William Schmalgemeier, advisory associate to Dr. Watson.

We shall appreciate any comments or suggestions that will enable us to be of greater service.

Kent W. Leach, Director
Bureau of School Services

## AしKNOWIEDGMENTS

The cooperation of the respondents to the survey has made this report possible. This is not inconsistent with the general cooperation the Michigan School Testing Service regularly experiences in working with its colleagues in local schoc! districts. We only hope their individual efforts will be rewarded by the information contained in this repert.

The example of Frank B. Womer in carrying out the previous studies set a standard which we are yet striving to attain. The counsel and advice of LeVerne $S$. Collet were the seeds which bore fruit in the final several chapters of this repori for which we give our sincere thanks. Mention must be made of the many colleagues at the Bureau of School Services whose often expressed interest helped brighten otherwise dull days.

Special aeknowledgment must go :o Yvonne Gillies and Karen Reppuhn who have worked diligently coding, de-coaing, typing, re-typing, and geterally preparing this document for distribution. The computer facilities of The University of Michigan must also be thanked.
W.L.S.
R.P.W.

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## Chapter I

## THE STUDY

This study is the third in a series of investigations into the testing programs of Michigan school districts. The two previous studies have reported to Michigan educators the testing practices in the state. Reactions received to publishing these findings seemed to dictate that the Michigan School Testing Service of The Uriversity of Michigan again survey school districts to report their testing behavior. It would appear as though an approximatt five-year schedule for this survey is in the making.

The $1963-64$ report emphasized strongly the changes that had occurred in the interval hetween it and its $1958-59$ predecessor. The present document, however, will not do that. Rather, efforts will be made to describe some of the apparent interrelationships batween ceriain pieces of reported information. In this sense the direction of the preserst report is more a prescription for testing use than a documentation of past performance.

This report is organized into four parts. The first part, Chapt:r Il, is essentially a tabulation, with commentary. of the frequencies of choice to the survey instrument, item-by-item. This will satisfy the interests of those readers who wish to know what the testing practices are througirout the state.

The second part, Chapter III, cuts deeper into operational content. To gather this information a sample of cnethird of the told! districts was used. This was accomplished by randomly mailing a more comprehensive question naire to every third district on the mailing list. This was judged to be adequate to reflect the substance of the information sought.

The next part, Chapter IV, deals with the specific tests used by the various districts throughout the state. Both the number of districts using the tests and frequency of their use are reported for the more offen used tests.

This final part, Chapters $V$ and $V$, is relational in nature. In it certain information is shown in conjunction with other information, the attempt being to assess the causal nature of some of the testing practices. Thus, for example, the uses to which test data are pat will be reviewed in relation to the ways in which teachers learn about these data.

Two major fevelopments have occured since the last survey was maic that have had some impact on the nature of testing programs in Michigan. While these developments are not directly reflected in the information of this report because of the nature of the questions asker, the reader should be cognizant of their presence. The first is the nearly total eradication of federally-sponsored machinations that influence psychometric praclices. This has presumably enabled local option to return increasingly to testing program determination, while the concurreni loss in preferred gaidelines may have been felt as well. Testing progiams should be more self-justified under these circumstances, and thus more closely related to the needs of the specific district.

The other occurrence has been the 1969 Michigan legislation requiring school districts to apply common criterion measures to determine local performance. While not directly affecting the present purposes for giving standaruized tests in the districts, the presence of these state wide tests and thejir consequent data cannot help but affect the philosophy of testing if not its function.

The population of this survey was defined as all school districts, public and private, in the state of Micligan that operate a K-12 program. The questionnaires were sent to Directors of Testing where ancther title was not available. Three follow-ups were made by mail but the vigor of pursuit of previous studies was not employed, the 84 percent response of total districts being adjudged as adequate to represent the practices of Michigan schools.

Results are reported variously as raw values, percentages or weighted values, the identity being specified at each teference point.

## Chapter II

## THE DATA

## The Presence of an Organized Testing Program

Eighty.eight percent of the rmorting districts indicated they have an organized program, i.e., schedule, of testing. This may mean anything in terms of planning from merely having the plan committos to paper to having a balanced, purposeful means of gathering information. But "organized" it was for 88 percent.

Organized programs ranged from obviously brand new activities to the veterans of fifteen years or more. The median age is approximately nine years. Table I, which shows the curation of orgr nized programs, also indicates that almost two-thirds of the districts reported testing schedules which could not have been included in the first of these surveys.

All those districts not reporting any structured program gave tests, with the exception of two districts but the information suggested that independent decisions by a principal anc;,or teacher determined what was given and when. Table II shows the variety of patterns of the school districts which reported no organized program.

## Management of the Testing Program

As the responsibilities for the maintenance of the various activities of a school district are assigned, one that becomes increasingly necessary is the management of the school testing program. Too great a price is paid by the
 other than educational need. To the extent that educational ascountability and pupil-product evaluation are truly mearingful phrases, a planned, efficient and appropriate lesting program is in order. It is true that

Table 1
$=\frac{\text { Age of Drganized Programs }}{\text { Years }}$
standardized testing data will usually tell less than is needed to assess educatioral effectiveness; however, it does tell more than would be known if no tesis were given or no other measurements taken. Tests may be fairly criticized for a number of faults which they possess; however, it is less than sporting to criticize them for our mis- or ron-use of the information they do contain.

Accordingly, four questions were put into the survey to assess the sources of operational authority and purpose as they presently exist. Table III presents the responses for the 433 districts of more than one building throughout the state to the question regarding lines of responsibility for their testing programs.

Table ll
Percentage Distribution of Oistricts Without Organized Testing Program: What Characterizes Them?

| Principal delermines test policy and usage within own <br> building | $5 \%$ |
| :--- | :---: |
| Each teacher selects and uses standardized tests at <br> his/her own discretion | $1 \%$ |
| Tests are given only in cases of special need | $1 \%$ |
| Each building independently establishes its own testing <br> policy and/or committee | $4 \%$ |
| Don't give any pubished standardized tests | $1 \%$ |

Table III
Percentage Dis.ribution of "Who's In Charge?" of Testing Program

| Testing program under one central testing committee <br> and/or testing specialist | $33 \%$ |
| :--- | :---: |
| Elementary school coordinator and/or cummittee-Secondary <br> school coordinator and/or committee responsib/s for <br> testing program | $\mathbf{3 6 \%}$ |
| Each building under its own testing committee and/or <br> testing specialist | $11 \%$ |
| Principal determines testing program of own building | $10 \%$ |
| Dnes not apply (have only one building) | $4 \%$ |
| Other arrangement | $6 \%$ |

It should be noted that about two-thirds of the districts reported a central source of authoiity: yariously a testing specialist, curriculum coordinator, or the educationally ubiquitous committee. Blending this information together with that contained in the following tables, it is apparent wheie the source of much school testing duthorty lies. Directors of testing are rare and directors of curriculum apparently are not frequently found on testing committees. Thus, when a comnittee does exist it has little formal titular leadership. Accordingly, while in many districts committees exist, the locus of their authority appears to be somewhat outside cf them. It is, however, encouragirg that two thirds of the districts at least possess the trappings of centrally ceordinated authority.

Table IV
Membership of Testing Committees

| Director of testing | $6 \%$ |
| :--- | ---: |
| Assistant superintendent or superintendent | $38 \%$ |
| Principal or assistant principal | $81 \%$ |
| Teachers | $44 \%$ |
| Counselors | $75 \%$ |
| Oirector of curriculum | $11 \%$ |
| Consitant, curriculum or guidance | $30 \%$ |

Table IV reports the distribution of offices amongst the districts (39 percent of total) who have an active testing committee.

Some equivocation may have existed over the use of the term "active" when inquiring into the presence of an "active testing committee" within the district. It seems probable to the writers that the implication of the findings is that 39 percent of the districts have a regularly assembling group, while 61 percent either do not have a committee or assemble one only when needed. It is not known how a commi, tee with a more generalized function that includes testing in its purview answered this question.

Among the districts who reported the presence of an active testing committee, a high percentage ( $84 \%$ ) reported that the committee functioned for the entire district (Table V). This value is higher than the authors' experiences reflect. Experierice with many districts indicate there is a great deal of segmented planaing throughout the state. However, the presence of a committee may be a force that will tena to encourage K. 12 plainning.

Table V
Percentage Distribution of the Scope of Testing Committees

Does committee function for entire district:

| Yes | $84 \%$ |
| :--- | :--- |
| No, because: | $11 \%$ |

There is a separate committee for elementary and secondary (14\%), each building has a committee (17\%), som.e other situation (17\%)

Finally in the management sector is the information concerning general involvement in the direction, review, and selection of $t$ sts. In this question respondents were asked to state who is invoived in the three stages of pregram management and to rate the extent of this involvement on a 1.5 scale. The total number of usable responses came from 464 districts. The column headed "Direct-Evaluate" represents the persennel involved in the daily ongoing direction and/or continuing evaluation of the program. "Review" represents personnel that might be involved in initiation and carrying out of mejor programreview. "Selection" represents personnel involved in selection of single tests, batteries of tests or groups of tests for use within the program. Table VI gives the weighied means for each of these three functions.

The horizontal stability of the values suggests that the three functions tend to fuse into a more generalized responsibility, i.e., those that direct also review and select. Regardless of the stated authority structure of the program, the actual responsibility for its operation very markedly rests with the counselors and principals. Teachers, the administration and organized committees enter as secondary agents in these functions.

Table VI
Weighted Mean Distribution of
Testing Program Involvement

| Personnel | Function |  |  |
| :---: | :---: | :---: | :---: |
|  | Direct-Evaluate | Review | Selection |
| Teacher | 1.8 | 0.7 | 1.9 |
| Committee | 1.2 | 1.4 | 15 |
| Principals | 0.6 | 2.9 | 3.0 |
| Superintendent or assistant superintendent | 1.9 | 1.9 | 1.9 |
| Director of curriculum | 0.8 | 0.8 | 0.8 |
| Counselor or other pupil personnel specialist | 3.6 | 3.1 | 3.7 |
| Consultants from external educational agencies or services | 0.7 | 0.7 | 0.8 |
| Consultants from commercial test publisiers | 0.4 | 0.4 | 0.4 |

In response to the question about anticipated changes in testing programs in the next year, a surprising 46 pescent of the districts indica'sd probable "significant er major" changes were anticipated.

To provide some definition of the anticipated changes, those districts $(N=$ 251) were given nineteen options and were asked to indicate the nature of the expected change. The results displayed in Table VIl cite the options and indicate the number of districts that either plan and/or need each, and those who do not feel it is necessary for them. It is significant, in light of the further findings of this survey, to note that those most needed or planned changes center around improvement in reporting and interpretation of test results.

Table VIla
Frequency Distribution of Anticipated Testing Program Change:

|  |  | 1 <br> planned | $\begin{gathered} 2 \\ \text { needed } \end{gathered}$ | 3 <br> both | 4 neither |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | To increase the use of reading readiness tests | $3{ }^{\circ}$ | 40 | 19 | 156 |
| 2. | To use a different reading readiness tesc than we are using | 24 | 23 | 14 | 190 |
| 3. | To increase the use of standardized reading tests (other than tests which are part of the instructional readirig program materials | 38 | 32 | 28 | 153 |
| 4. | To use different reading tests than we are now using | 28 | 26 | 23 | 174 |
| 5. | To increase the use of individual intelligence tests | 31 | 29 | 19 | 172 |
| 6. | To increase the use of group intelligence or scholastic aptitude tests | 38 | 22 | 20 | 171 |
|  | To introduce or use a different group intelligence or scholastic aptitude test than we are now using | 35 | 31 | 20 | 165 |
| 8. | To introduce or use more multi-aptitude batteries | 20 | 28 | 11 | 192 |
| 9. | To in troduce or use a differ. ent multi-aptitude battery than we are now usin? | 22 | 12 | 4 | 213 |

Table VIIb
Frequency Distribution of Anticipated Testing Program Changes

|  |  | $\begin{gathered} 1 \\ \text { planned } \end{gathered}$ | $\begin{gathered} 2 \\ \text { needed } \end{gathered}$ | $\begin{gathered} 3 \\ \text { both } \end{gathered}$ | $4$ neither |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10. | To increase the use of standardized achievement test batteries | 37 | 31 | 30 | 153 |
| 11. | To use a different standardized achievement battery than we are now using | 47 | 25 | 25 | 154 |
| 12. | To in troduce or use more interest tests | 20 | 42 | 25 | 164 |
| 13. | To in troduce or use more personality or character tests | 11 | 25 | 6 | 209 |
| 14. | To improve the scoring of tests | 38 | 30 | 28 | 155 |
| 15. | To improve the methods of recording test results | 37 | 41 | 36 | 137 |
| 16. | To improve the processing and reporting of test results to teachers, counselors, or administrators | 50 | 64 | 55 | 82 |
| 17. | To develop more local (school district) norms | 35 | 73 | 32 | 111 |
| 18. | To improve the interpretation of test results | 53 | 69 | 57 | 72 |
| 19. | To improve the interpretation of test results to teachers, counselors, or administrators | 57 | 74 | 65 | 55 |

## The Dissemination of Test Information

One of the most frequent charges against those invested with control of testing information is the lack of dissemination of this information. A variety of reasons are offered for this, some doubtless of considerable merit. However, it is difficult to contest the uselessness of test data in a file. Frequently, our lack of confidence in the dissemination of data is directly related to our lack of adequately prepared teachers to ingest the information. Local districts must, then, either do the job themselves or face a situation that allows tests to be given while their information is not well undeistood.

To pursue the way in which test information is housed inquiry was made about the placement of data. As many responses as appropriate were requested, so the total well exceeds 100 percent. From Table VIII it may be seen that the pattern is consistent, with the counselor or principal being most involved with test data.

Table VIII
Percentage Distribution of Test Da*a Placement

| In superintendent's or assistant superin tendent's office | 16\% |
| :---: | :---: |
| In central office | 20\% |
| In principa!'s office | 61\% |
| In office of research director | 3\% |
| In office of testirg director (if other than research director) | 22\% |
| With counselor o: pupil per sonnel specialif: | 71\% |
| With grase or hu neroom teacher | 35\% |
| In pupil's cumulative folder | B4\% |

Also of interest may be the numbers of copies of test dita groduced per administration, as gleaned from the responses reported in Table VIII. It is uccepted that the original question might allow this interpretation.

Of greater interest, h swever, is the matter of eligibility to see the results. It must be remembered, that not all districts give "interest or vocationa!" tests and even fewer administer "personality" tests. It is advised that the worth of this question comes from the differences between persons for a given type of test rather than from comparing across tests.

Table IX
Copies of Test Data Produced
By School Districts

| Number of Copies | Percent of Districts |
| :---: | :---: |
| 1 | $11 \%$ |
| 2 | $21 \%$ |
| 3 | $32 \%$ |
| 4 | $20 \%$ |
| 5 | $10 \%$ |
| 6 | $5 \%$ |
| 7 |  |

Table X
Percentage Distribution of Persons Elig:ble to See Test Data

|  | Intelligence or Aptitude | Achievement | Person. ality | Interest or Vocational |
| :---: | :---: | :---: | :---: | :---: |
| Homerow teacher (Sec.) or giade teacher (Elem.) | 86\% | 87\% | 43\% | 70\% |
| Any classroom teacher | 84 | 87 | 40 | 74 |
| Special teacher, speech, etc. | 87 | 86 | 45 | 72 |
| Principal | 98 | 97 | 63 | 86 |
| Chief school c:ficers | 70 | 70 | 41 | 62 |
| Board of education | 33 | 36 | 19 | 29 |
| Guidance counselor | 93 | 92 | 63 | 87 |
| Specialis $/$ consultant in health, psychology, etc. | 83 | 81 | 34 | 72 |
| No answer | - | - | 31 | 31 |

On the assumption that a district has an established and systematized procedure for making sest data available to its staff, the respondents were asked to indicate the one way in which data are made accessible. The responses here relate to jurisdiction and, eventually, to control of testing information. The figures (Table XI) suggest a fairly wide pattern of containment, although the "not available to teachers" is happily almost negligible.

Table XI
Percentage Distribution of Teacher Information Source

1. Test resuits are placed in the central office and any teacher
who wishes may look them up.
2. Test results are placed in files in the principal's office ary teacher may see them in consultation with the principal.17\%
3. 'rest results are placed in fites in the guidance counselor's
office. Any teacher may see them in consultation with
the counselor.
4. Test results are sent directly to homeroom teacher who keeps
them in his own file.
5. 7 est results are confidential and are generally not
available to teachers.
6. Situation \#4, plus either \# 2 or \# 3 above $11 \%$
7. Other 3\%

A most common area of either encertainty or conflict in education is the dissemination of standardized test information to parents and pupils as well as ".n house" groups. These are the presumed consumers for whom the data was uriginally gathered.

The variety of ways in which information was regularly interpreted to punils, parents, teachers administrators and community groups was solicited. Table XIl would seem to indicate the regular presentation of test information to the primary subjects and consumers, i.e., the children and their parents. Secondarily, teachers and administrators are presented with summary statistics. Perhaps, if trie, this is how it should be.

One of the most expandable questions asked in the survy dealt with the ways in which test results are sometimes used. Respondents were asked to rate a list of possible uses on a $I$ to $S$ scale reflecting highest to lowest priority.

Table xill
Percentage Distribution of Methods for Interpreting Data

| Written reports or profiles to pupils | 53\% |
| :---: | :---: |
| Written reports or profiles to parents | 30\% |
| Individual pupil conferences | 85\% |
| Individual parent conferences | 66\% |
| Group analysis with pupils | 34\% |
| Group analysis with parent; | 5\% |
| Group analysis in commurity meetings | 4\% |
| Case studies in teachers' meetings | 21\% |
| Test analyses in teachers' meetings | 33\% |
| Consultant heip in teachers' meetings | 19\% |
| Teachers' institutes | 4\% |
| Report of summary statistics to teachers | 55\% |
| Report of summary statistics $t$ - administrators | 58\% |
| Report of summary statistics to community groups | 13\% |
| Other | 1\% |

This question will be studied in greater depth in another part of this report whea the various use categories are reported in relationship to other yuestions.

Presumably the answers given by school districts to this question should be reflective of the purposes for which tests are given. The "why" should dictate thr "what", "when" and "to whom" tests are administered. Some tests, under specific circumstances, are relevant to a particular function, e.g., curriculum diagnosis, while others are siot. If curriculum evaluation is an avowed use of a test in a district then a tes! whuch does that should be used rather than one designed to be more diagnostic of individual students.

Table XIlì reflects this question using weighted means in its first column. To retain some of the original data, the numbers of first choices for each category are also listed in parentheses following the weighted score.

Table XIII
Weighted Means and First Choice Responses to Test Result Use

|  | Weighted <br> Mean | 1st Chsices |
| :--- | :---: | :---: |

The data seem to show that by far the most important use of test results ir involved in the diagnostic relationship beiween teacher and pupil. Following at considerable distance is the broad spectrum oi evaluation and cevelopment of educational goals and uses related to class and individual achievement.

## Teacher/Staff Preparation in Test Data Use

Four alternatives were given the districts to describe the "provisions.... made by your system :o assist teachers and other personnel to use test results most effect'vely". Twenty districts failed to anewer this. Multiple choices were permitted. Table XiV shows the number of tallies per alternative.

No question was asked as to the districts' estimates of the effectiveness of these proceduri: In few areas are we dess adequa'ely prepared to meet ou:

Table XiV
Methods Used for In-Service Education

| Methods: | Frequency |
| :--- | :--- |
| General faculty meetings at least once each year <br> devoted to testing program and interpreting <br> test results | 108 |
| Buidding faculty meetings at least once each year <br> devoted to testing program and interpreting <br> test results | 202 |
| Departmental, grade, divisional or other sub-group <br> faculty meetings at least once each year devoted <br> to testing program and interpreting test resalts | 165 |
| In service training facilities other than faculty <br> meetings providing help in the testing program <br> and test result intergretation | 131 |

colleagues' and parents' questions, let alone our own. There is little doubt as to the nature of the answers if such a question had been posed.

Again twenty districts did not respond to the question of "who bears the primary responsibility for carrying out and directing such information and training meetings". The frequencies are used in Table XV below.

Table XV
Wha Directs Testing In Service Education

| Title | Frequency |
| :--- | :---: |
| Director of testing | 66 |
| Director of curriculum lelem. or sec.) | 21 |
| Principal | 129 |
| Superintendent or assistant superintendent | 39 |
| Counselor or pupil personnel specialist | 180 |
| Other | 10 |
| No response | 20 |

Note that the counselor and principal again catry this technical responsibility, their order reversed over the earlier questions relating to management and selection matters.

## Chapter III

## THE SECOND STUDY: TESTING SITUATIONS

While the first part of this report is concerned with testing programs and their implementation, the second part deals with the testing situations encountered. A "testing situation" is herein defined as occurring each time a test is given. Thus, if a district gives an achievement test in grades 3,5 and 7 and an intelligence test in grades 4 and 6 that would constitute five testing situations.

To secure this information, every third questionnaire included an additional fourteen questions. These covered the tests given, how they are a iministered and scored, the results' subsequent availability, and the norms used for the tests.

The results reported here will be concerned only with reports of achievement and intelligence-aptitude testing practices in tina* 88 percent of the testing situations reported were of those types. Others, e.g., reading readiness, interesi, personality, were not sufficiently used to permit generalization. The data in this part are based on 1417 testing situations, there being a range of one to thirty situations in respective districts, the mean being 12 per disirict. All data reported are in percentages of total per column.

The tables make two distinctions in their information. Elementary and secondary schools are separated between grades 6 and 7 , although this distinction is becoming increasingly exceptionable with the advent of middle schools. Furthermore, information pertaining to achievement data is separated from intelligence and aptitude data, the tast two being subsumed under the same category heading.

Table XVI reports the nercentage distribution of testing situations in elementary and secondary grades for intelligence and aptitude, hereafter jointly called ability, tests and for achievement tests as related to the conditions of test administration. Eighty-one percent of the ability testing situations in elementary schools occur in classrooms, while only 41 percent of the ability tests are adrinistered in that location in the eecondary schools. The shift to group counseling is readily appareat for the righer grades where large groups :hare the limelight with classroom groupings.

Table XYII suggests that what is goor for one is good for all. This may be of some interest to someone. Just how is this to be interpreted together with the information in the previous t:ble? It would seem that wlat appears to be group counseling may in fact te ' ?erely administrative convenience.

Table XVI
Percentage Distribution of Testıng Conditions

|  |  | Elementary Grades | Secondary | Grades |
| :--- | :---: | :---: | :---: | :---: |
| Test Situation | Ability | Achievement | Ability | Achievement |
| Class:oom | $81 \%$ | $90 \%$ | $41 \%$ | $45 \%$ |
| Large groups | $5 \%$ | $6 \%$ | $46 \%$ | $39 \%$ |
| Sinall groups | $5 \%$ | $1 \%$ | $9 \%$ | $8 \%$ |
| Individually | $5 \%$ | 0 | $\%$ | 4 |
| Combination of Above | $3 \%$ | , $3 \%$ | $3 \%$ | $7 \%$ |
| No response | $1 \%$ | 0 | $<1 \%$ | 0 |

Table XVIII must be read carefull, . It is designed to report responses to the question: "When a test is given, how frequently is it given?" Thus, a specific abllity test is administered each year 95 percent of the time in secondary schools. It is used every other year in I percent of the cascs at that grade level. This table does not say that 90 percent of the clementary youngsters are tested every sear: rather, 90 percent of the ability tests are repeated annually.

Table XVII
Percentage Distribution of Pupils Tested

|  | Elementary Grad:s |  | Secondary Gradas |  |
| :---: | :---: | :---: | :---: | :---: |
| Proportion of Stucients | Ability | Achievement | Ability | Achievement |
| Ali | 93 | 95 | 89 | 84 |
| 3/4.9/10 | 2 | 3 | 5 | 5 |
| 1/2.3/4 | $<1$ | 1 | 1 | 1 |
| 1/4-1/2 | $<1$ | $<1$ | 1 | 3 |
| 1/4 less | 0 | $<1$ | 1 | 0 |
| Only small no. | 4 | $<1$ | 1 | 6 |
| Combination of above | 0 | $<1$ | 1 | 1 |
| No response | 1 | 0 | 1 | 0 |

Table XVIII
Percentage Distribution of Testing Situation Frequency

|  | Elementary Grades |  | Secondary Grades |  |
| :--- | :---: | :---: | :---: | :---: |
| Frequency of Testing | Ability | Achievement | Ability | Achievement |
| Cnce each year | 90 | 95 | 95 | 95 |
| Twice each ye: - | $<1$ | 2 | $<1$ | $<1$ |
| More than twice each year | 0 | 0 | 0 | 0 |
| Every other year | 1 | 1 | 1 | $<1$ |
| Some other regular schedula | 4 | 0 | 1 | 1 |
| Irregularly | 3 | $<1$ | $<1$ | 1 |
| No response | 2 | 2 | 2 | 2 |

Table XIX conlains information that may de extremely important vis-á-vis test use. Half of the ability tests are given in the fall, while achievement tests are more frequertly given in the spring. This suggests that achievement tests are seen in most cases as summative rather than as prescriptive for educational planning. The time separation between ability and achievement testing may reflect a division of labor; however, it clearly restricts a district's ability to see achievemen: in relation to immediate ability.

Table XiX
Percentage Distribution of Test Administration

|  | Elementary Grades |  | Secondary Grades |  |
| :--- | :---: | :---: | :---: | :---: |
| Time of Testing | Ability | Achievement | Ability | Achievernent |
| Fall | 50 | 31 | 51 | 37 |
| Winter | 14 | 10 | 15 | 11 |
| Spring | 28 | 54 | 30 | 45 |
| Fall-Spring | 0 | 2 | 1 | 0 |
| Winter-Spring | 2 | $<1$ | $<1$ | $<1$ |
| Fall-Winter | 4 | 2 | 1 | 3 |
| No specified time | 1 | 1 | 1 | 2 |
| No response | 1 | 1 | 1 | 2 |

The shift in the responsibility for test administration is apparent in the next table. Counselors take over from ciassroom teachers in secondary schools and the principal's psychometric role almost disappears, particularly with ability tests, Of greatest interest, perhaps, is the difference in the teachers' role heiween the two kinds of tests. Clearty, the domain of intelligence-aptitude is seen as being less retevant to them than achievinent.

In. the scoring of standardized tests there is onty a minimal distinction between ability and achievenent tests. Rather, as shown in Table XXI, the difference occurs between the elementary and the sccondary schools. There is a great variety of ways in which tesis are scored. Clearly, the move is toward automated scoring processes and away from hand-sconing but the transition is gradual. Five years from now the irend should be nuch cleater. It is easy to

Table XX
Percentage Distribi' ion of Test Administration:
Whe Gives What?

|  | Elementary Grades | Secondary Grades |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Title | Ability | Achievement | Ability | Achievement |
| Classroom teacher | 59 | 75 | 13 | 28 |
| Guidance counselor | 15 | 11 | 76 | 58 |
| School psychologist | $<1$ | $<1$ | 0 | 0 |
| Consulting psychologist | 0 | 0 | $<1$ | 0 |
| Principal or assistant <br> principal | 13 | 7 | 2 | 5 |
| Superintendent | 0 | 0 | 0 | 0 |
| Other | 4 | $<1$ | 2 | 6 |
| Combination | 9 | 6 | 6 | 8 |
| No response | 0 | 0 | 1 | $<1$ |

predict that the service agencies and local compter capabilities will be considerably increased by then and the laborious and often error-ridden hand-scoring operations will be less prevalent. Three quarters of the secondary schools ahrady have access to automation. Note that achievement testing situations are somewhat more frequently machine-sicored than ability tists.

Table XXII paints a mixed picture. The first four options all allow for the release of test information; however, the last three of these stipulate some qualifications. In the instance of secondary ability tests 85 percent of the results are "reported" under some conditions. It is even highet for achievement tests. Ability data dre understandably more "confidential" than achievement data.

A final note: no attempt was made in the survey to specify what "test results" are (e.g., specific values, generalities, etc.), nos was the term "reporied" further defired, Some variation may have existed in the minds of the respondents as they answered this question.

Table XXI
Percentage Distribution of Test Scoring

| Test Scorer | Elementary Grades |  | Secondary Grades |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ability | Achievement | Ability | Achievement |
| Student | 0 | $<1$ | $<1$ | 0 |
| Clerk | 5 | 5 | 4 | 3 |
| Classroom teacher | 32 | 34 | 3 | 10 |
| Pupil personnel worker | 11 | 3 | 16 | 6 |
| Principul or administrator | 5 | 2 | 1 | 2 |
| Educational service organization | 11 | . 14 | 30 | 24 |
| Test publisher | 22 | 32 | 33 | 45 |
| Test scoring company | 3 | 4 | 6 | 5 |
| School owned scoring machine | 4 | 3 | 3 | 4 |
| Other | 4 | $<1$ | 1 | 0 |
| No response | 3 | 2 | 2 | $<1$ |

Table XXII
Percentage Distribution of Test Situations Reported to Children

|  | Elementary |  | Grades | Secondary Grades |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Are Tests Reported | Ability | Achievement | Ability | Achievement |
| Yes, routinely | 3 | 8 | 35 | 41 |
| Yes, some cases | 5 | 13 | 7 | 15 |
| No, explanation routinely | 13 | 14 | 18 | 13 |
| No, explanation some <br> cases | 34 | 37 | 25 | 22 |
| No, test confidential | 39 | 21 | 12 | 7 |
| Combination | 2 | $<1$ | $<1$ | 1 |
| No response | 4 | 6 | 2 | 1 |

Multiple responses were sought regarding the uses to which test results are put. Table XXIII shows some interesting features.
"Ability grouping", in spite of years of systematic research demonstrating its general futility, remains vigorously present. Why do we persist in reporting research when data are as ignored as these?

The relative weakness of use for "grading students" is comforting with respect to achievement tests. This mis-use of testing information may be dying slowly, though secondary schools continue to show sonire persistence. How ability tests can be used to grade students in 5 percent of the cases is difficult to understand. The use of ability tests to evaluate "curriculum" and "teaching" defies reaction.

To use these instruments to counsel students and parents, to diagnose learning difficulties and, with achievenient tests, to evaluate curriculum (not teaching) are all frequently reported and are appropriate use...

The 1 percent who report "nc" used" for elementary achievenient are thanked for their frankness. One suspects they may have more colleagues than are acknowledged.

Table XXIII
Percentage Distribution of Test Uses

| Test Usage | Elementary Graoies |  | Secondary Grades |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ability | Achievement | Ability | Achievenient |
| Ability grouping | 34 | 43 | 25 | 34 |
| Counseling students | 37 | 39 | 32 | 70 |
| Grading students | 5 | 8 | 6 | 11 |
| Evaluate curriculum | 27 | 54 | 25 | * |
| Evaluate teaching | 9 | 25 | 7 | - |
| Diagnosis of tearning difficulties | 76 | 73 | 60 | 63 |
| Counseling parents | 50 | 47 | 48 | 48 |
| Other | 2 | 2 | 1 | 2 |
| Results not used | 0 | $<1$ | 0 | 0 |

Table XXIV presents some unusual response characteristics. Nearly a quarter of the respondants did not indicate the single "most important use" of test data. Among those wio did, however, the data indicated that both achievement and ability tests are used to diagnose learning difficulty in the elementary schools while the predominant use in the secondary e-ades is for counseling students.

Table XXIV
Percentage Distribution of Most Important Use Data

|  | Elementary Grades | Secondary Grades |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Use | Ability | Achievement | Ability | Achievement |
| Ability group | 12 | 1 | 6 | 7 |
| Counseling students | 10 | 7 | 48 | 41 |
| Grading studenis | 0 | 1 | 1 | 1 |
| Evaluate curriculum | 3 | 11 | 1 | 8 |
| Evaluate teaching | 1 | 3 | 1 | 2 |
| Diagnosis of learring | 45 | 38 | 17 | 17 |
| difficulties | 7 | $;$ | 1 | 1 |
| Counseling parents | 1 | 1 | 1 | 2 |
| Other | 21 | 23 | 24 | 21 |
| No response |  |  |  |  |

It should be noted that in Table XXV the "publishers" norms ale aimost certainly national in scope and should be so subsumed. Further, nearly one quater of the testing situations apparently apply more than one norm reference point. This is encouraging?

Also encouraging is a fairly substantial tendency io report test data wis more than one statistical language. However, as is shown in the options of Table XXVI, the questionnaite language was confusing: all are standard siores (except profiles), not just the 7 to 23 percent so recorded.

Clearly, the I.Q. score is used to report ability measures in elementary schools, whereas percentiles are mied for achievement tests. The data suggests use of the more manageable scores such as bands or stanines may be wh the increase. It is certain, whatever the present trends, the grade cquivalent scere reflects a day when only less underslandable test language was available.

Table XXV
Percentage Distribution of Norms Used

|  | Elementary Grades |  | Secondary Grades |  |
| :--- | :---: | :---: | :---: | :---: |
| Norms | Ability | Achievement | Ability | Achievement |
| Local | 16 | 24 | 19 | 27 |
| Regional | 4 | 0 | 1 | 2 |
| National | 92 | 91 | 92 | 93 |
| Publishers | $<1$ | 1 | 1 | 2 |
| Other | $<1$ | 0 | 0 | 0 |

Table XXVI
Percentage Distribution of Test Language

| Test Language | Elementary Grades |  | Secondary Grades |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ability | Achievement | Ability | Achievemeit |
| 10 score | 83 | 6 | 48 | 9 |
| Stanine | $?$ | 22 | 5 | 16 |
| Standard scores | 7 | 15 | 15 | 23 |
| Grade equivalents | 9 | 73 | 13 | 49 |
| Age equivalents | 11 | 7 | 8 | 8 |
| Percentile rank | 30 | 51 | 60 | 71 |
| Band scores | 2 | 6 | 10 | 7 |
| Profiles | 0 | 0 | 2 | 0 |
| Other | 0 | 0 | 0 | 0 |

Table XXVIl is easily read and offers listle news. One should be plased that only three testing situations survey ed responded that tests wire too confidential for teachers to see. This is consistent with the results seported earlier in Table XI.

Table ふ̌iVII
Percentage Distribution of Test Availability to Teachers

|  | Elementary Grades |  | Secondary Grades |  |
| :--- | :---: | :---: | :---: | :---: |
| Test Availability | Ability | Achievement | Ability | Actievement |
| Yes, in classroom files | 51 | 56 | 11 | 24 |
| Yes, in central fiies | 32 | 26 | 53 | 50 |
| Yes, in consultation with <br> principal, etc. | 7 | 9 | 23 | 19 |
| No, tests confidential | 0 | 0 | 1 | 1 |
| Combination | 7 | 5 | 10 | 6 |
| No response | 3 | 2 | 3 | 1 |

Table XXVIII offers a wide range of responses as could be anticipated. In excess of 85 percent of the testing situations generate data that may be made available to parents under some conditions. It seems that only the eleinentary school ability data are withheld with any degree of frequency.

Table XXVIII
Pe: ,entage Distribution of Test Availability to Parents

|  | Elementary Grades | Secondary Grades |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Test Availability | Abitity | Achisvement | Ability | Achievement |
| Yes, routiriely | 2 | 12 | 12 | 15 |
| Yes, parents request, <br> scriool approves | 13 | 21 | 18 | 31 |
| No, explanation routinely | 12 | 13 | 8 | 8 |
| No, explanation parents re- <br> quest, school approves | 55 | 47 | 51 | 38 |
| No, test results <br> confidential | 11 | 3 | 5 | 3 |
| Combination | 3 | 2 | 4 | 5 |
| No response | 4 | 2 | 2 | 0 |

As was noted with an earlier question, the terms "available" and "results" are not specific and may reflect a fairly wide range of practices.

Perlaps the greatest general statement that can be made is that the data can be had for the asking. But one must know who to ask, what to ask for and feel confident enough to ask. One wonders how many ask.

Table XXIX again reflects the management of test data; reporting test scores to parents and chiddren. Classroom teachers, principals, specialists and combinations thereof carry out this function in the elementary school only to be heavily replaced in the secondary schools by the counselors.

Table XXIX
Percentage Distribution of Who Reports Scores to Children/Parents

|  | Elementary Grades |  | Serondary Grades |  |
| :--- | :---: | :---: | :---: | :---: |
| Titte | Ability | Achievement | Abifity | Achievement |
| Classroom teacher | 37 | 53 | 3 | 7 |
| Guidance counselor | 11 | 9 | 74 | 70 |
| School psychologist | 0 | $<1$ | 0 | 0 |
| Principal | 12 | 8 | 3 | 5 |
| Other | 1 | $<1$ | 0 | 0 |
| Not interpreted to parents | 7 | 2 | 3 | 3 |
| or child | 70 | 25 | 14 | 16 |
| Combination | 3 | 2 | 3 | 0 |
| No response |  |  |  |  |

## Chapter IV

## TESTING PATTERNS

Part of the survey inquired into the testing behavior of districts with respect to particular instruments. It is with mixed feelings that the authors report this information. Clearly, popularity of use is hardly a sufficient criterion for test selection, peticularly with tests ut scholastic achievement. But the question, "What do other districts give?" is too frequently asked to permit anything other their reasonably complete reporting of this informa${ }^{+101:}$

Fiequencies are seported in two ways. The number of districts using each test is followed $b_{y}$ the number of testing situations in which each is used. Accordingly, if a district gives a certain aptitude test twice the tally would te one for districts and two for testing situations. It is hoped ine latter will be helpful in placing this information in better perspective.

These data are based on the one-third sample population described earliei. The basic number of districts here is 131 . Only tallies for group tests are reported. While some districts listed the Wechsler and others, the intent of the survey was to secure group test use only.

Clearly sone patterns exist. Intelligence tests, used in the lower grades more than in the upper, tend to occur two or three times in a child's experience. The most typical pattern (not observable from Tables XXX $a$ and $b$ but eisewhere) is two elementary administrations and one secondary, usually in the junior high. If only two are given, one is given in elomentary aind about half the others are given agair in elementary and half in the secondary.

Table XXXa
Frequency Distribution of Test Usage

| Name of Test General Intelligence Tests | Districts Using | Testing Situations |
| :---: | :---: | :---: |
| Calif. Test Mental Maturity - Long Form | 7 | 10 |
| Calif. Test Mental Maturity - Short Form | 83 | 229 |
| Henmon-Nelson | 4 | 8 |
| Kuhlmann-Anderson | 11 | 17 |
| Lorge-Thorndike | 52 | 127 |
| Otis | 17 | 30 |
| Otis-Lennon | 20 | 38 |
| School \& College Ability Test (SCAT) | 17 | 24 |
| SRA TEA | 9 | 10 |
| (Scholastic) Aptitude |  |  |
| Academic Promise Test | 7 | 7 |
| Differential Aptitude Test | 98 | 116 |
| Iowa Algebra Aptitude | 22 | 24 |
| Oileans Algebra Aptitude | 3 | 3 |
| SRA PMA | 5 | 7 |
| Reading Readiness |  |  |
| $A B C$ Inventory | 17 | 18 |
| Gates | 3 | 3 |
| Harrison-Stroud | 4 | 6 |
| Lee-Clark | 6 | 7 |
| Metropolitan | 62 | 70 |

Table XXXb
Frequency Distribution of Test Usage

| Name of Test | Districts Using | Testing Situations |
| :---: | :---: | :---: |
| Achievement Batteries |  |  |
| California | 38 | 113 |
| Cooperative | 4 | 10 |
| Iowa Tests Basic Skills | 40 | 113 |
| Iowa Educational Development | 32 | 65 |
| Metropolitan | 28 | 80 |
| SRA | 13 | 46 |
| STEP | 9 | 12 |
| Reading Tests |  |  |
| Gates Primary | 3 | 4 |
| Gates MacGinite | 16 | 35 |
| Scott Furesman Basic | 8 | 10 |
| Inventrries |  |  |
| Kuder Preference | 31 | 32 |
| Stiong Vocational Interest | 8 | 9 |

(All other tests mentioned were given fewer than five times by two $c$. fewer districts only. These criteria hold throughout this tabulation.)

Scholastic aptitude tests are limited almost exclusively to the seconder. whools. The Differentiol Aptitude Tests seem to be the only lest repeat. The authors feel obliged to observe an old testing canon to the effect ;: putting all one's evidence in one test, and not repeating it to assess stab, has dangers. It is not sufficient to say that these are reliable instruments. . course they are, but they are more reliable for groups of youngsters tha: $:$ individuals.

The running node for achievement batteries secms to be between th and Eour administrations. (There are mose districts that use more tha:l ", brand of intedigence of those than one brand of achiewement tests. White $t$
limit generalizations, they do not accur frequently.) Generally, two administrations occur at elementary and one or two in secondary schools.

Leaving the table but continuing on the matter of particular test popularity, the authors' principle reason for feelings of reservation about printing this kind of information should also be stated.

Particularly in the area of achifvement tests, the spawning of new forms of old tests is an increasing phenomenon. As such, whether a test is "popular" or not at a given point in time depends as much on its recency, and the recency of its competition, as it does upon the quality of the instrument. The availability of a test as a "recent" event may be illustrated by the fact that there major achievement tests will produce new editions in the twelve months following this writing (summer, 1970). What the popularity of tests, both old and new, will be a year from today is, of rourse, uncertain.

Tests, particularly achievement tests, fhould be selected on a basis other than what the other school is doing. The competencies of districts to make insightful desisions are about uniformly detributed and cach must wrestle with the same basic questions in test selection Other than practical concerns of cost, readability and flexibility of out-put, time to administer and servicing, the sole criterion of test selection is curricular fit. This eו., hasizes the authors distress at the relative lack of participation by curriculum leaders in test selection. Only by determining which instrument most clasely asks questions relevant to the local curriculum with appropriate grade level expectations can an achievement test render believable is alts.

## Chapter V

## TEST INFORMATION USAGE

Education is frequently charged with being badly hung up on traditionalism and self-perpetuation. Certainly many of our practices are open to question; it is perhaps a hopeful sign that some of ouí less defensible practices are presently undergoing modification.

Among our many rather pro fomm acts is the antisal exercise for many youngsters of taking standardized tests, the results of which are used less than they should be if tests were to be cost-or time-justified. Used or not, testing programs are "good to have", or so our actions would seem to imply.

In the interests of assaying school districts' declared uses of test information, a question was inserted into the survey instrument that offered a variety of possible uses. This chapier of the report will address itself to those declared uses in relation to the care-storage-control of the information, with respect to how the information is disseminated and as to how teachers are aided to better understand and interpret test information.

The question on which this chapter is based asked districts to rate, on a 1 to 5 scale, the "ways in which test results are sometimes used". Thirteen options were provided. Reviewing the responses enabled the authors to say that the districts tended to group themselves into four types: those who use results to assess individual achievement (Type 1); those concerned with test usage for motivational purposes (Type M); those who emphasize the research and development aspects (Type R \& D); and a group almost uniformly equal in their cmphases in the three categories (Type E). A sub-sample was drawn from the total population of those districts that most clearly represented each of the four types. Nearly 40 r icent of the districts in the state were inciuded in this sample, with the desige ations being judgreental.

| Individual Aclievement | Type I | $\mathrm{N}=56$ |
| :--- | :--- | :--- |
| Motivation | Type M | $\mathrm{N}=51$ |
| Research \& Development | Type R \& D | $\mathrm{N}=46$ |
| Balanced Equivalent | Type E | $\mathrm{N}=56$ |

The question was then asked as to how the:e four types of districts responded to three of the other questions in the survey. The data follow.

## Where Are Tests Kept?

There were originally five alternatives identified in addition to an "other" category. One ("tests are tuo confidential and are not avaiable to teachers") received so few responses it was happily discarded.

Table XXXI
Percentage Distribution of Test Placen:erit
sy Type of Senool District

|  | ?. ${ }^{\text {e e of Oistrict by Test Use }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Where tests are placed | 1 | M | R\&D | E |
| i) Placed in file in central olfice - teachers may look up | 34 | 37 | 24 | 27 |
| 2) Placed in principal's office; seen via priricipal thru consultation | 13 | 37 | 41 | 41 |
| 3) Piaced in counselor's file; seen via counselor thru consultation | 30 | 16 | 21 | 18 |
| 4. Kept in the classroom | 13 | 10 | 14 | 1: |
| 5) Other | 10 | 0 | 0 | 0 |

Table XXXI presents a $4 \times 5$ comparison, the " 4 " being the iour typers of school districts identified and the " 5 " being the five possible choices in response, including "other". The values repoted are perventages of the vetical, type-of-distict, columo.

To read this table note that 34 percent of the Type I districts place the data in the central office and pernit direct access by teachers. Thirteen percent of those districts keep the data in the principal's ofice and 13 percent keep them in the classroom. Some 30 percent of that district-type use the counsclor's file. The distributions for eash district-type may be read in the same way.

There are statistical differences. When the data were tested for differences they yielded a chi square value of 23.47 , which is just short of statistical significance at the .05 level. The differences in the table, then, are not statisticaliy significant by a conventional standard of value. However, the size of the chi square suggests that the differences are notable if we take something slightly less than the 05 confidence lovel. It is safe to say the obtained differences in the table exceed occurrence by chance alone 93 times out of 100 .

Accordingly, there appears to be some lentative kind of relationship between district-type and test data placement. The " $R \& D$ " and " $E$ " type districts appear tu be monotonic in their placement of test data and that in the principal's office. This would seem to be in keeping with the stated uses of these data !n contrast the other two types of districts are dichotomous in theit test data storage. In both cases records are situated in the central office, perliaps as a basic repository. Those districts primandy inclined toward indivicual assessment also tend to place test results in the counselor's office where they are available for individual reffrence. The "Motivation" districts tend, in contrast, to favor the principal's oflice.

## How Are Results Reported-Interpreted?

Again the filter is the district-type. The essential question concerns whethes districts which lend to use test data differently (hence, have different purposes) also reflect differences in cher testing progranl attributes. The survey question asked respondents to indicate the methods used regularly $i_{i}$ interpreting te: $: s$ tiv pupils, parents, teachers, administrators and commu. nity groups. Thirtean of the methods received sufficient tallies to warrant reporting and analysis. The data in Table XXXIt report the percentage of yes responses. Each category'response possesses its own chi square because the comparison here was ies m. Fach such response eategory totals 100 percent. Thus, there were 53 percent no iesponses to "written reports or profiles to pupils" in the "I" column against the 67 percent reported.

Table XXXII
Percentage Distribution of 'Yes' Responses Regarding Test Interpretation Methods

| Tyu\% of District by Test Use |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Methods used to report test data | 1 | M | R\&D | E | Chi-square value ${ }^{\text {Yes }}$ vs. No |
| a. Writen reports or profiles to pupils | 47 | 38 | 64 | 59 | 2.50 |
| b. Written reports or profiles to patents | 29 | 50 | 78 | 33 | 8.13* |
| c. Individual pupil conferences | 87 | 85 | 52 | 79 | 14.85* |
| d. Individual parent conferences | 76 | 33 | 50 | 100 | 3.67 |
| e. Group analysis with pupils | 42 | 100 | 0 | 75 | 2.90 |
| f. Group analysis with parents | 7 | 38 | 20 | 33 | 7.97* |
| g. Group analysis with community meetings | 4 | 44 | 40 | 75 | 35.17* |
| h. Case studies in teachers' meetings | 25 | 55 | 38 | 34 | 7.36 |
| i. Test analyses in teachers' meetings | 29 | 57 | 45 | 43 | 4.44 |
| j. Teachers' institutes | 4 | 78 | 71 | 94 | 86.88* |
| k. Statistical summaries to teachers | 53 | 67 | 33 | 33 | 1.10 |
| I. Statistical summaries to administrators | 45 | 50 | 0 | 33 | 0.19 |
| m. Statistical summaries to ce nmunity groups | 9 | 48 | 58 | 44 | 29.65* |

*chi square significant at .05 level of confidence or greater

There are, then, six statistically significant differences shown in the table among the pairings. The implied $2 \times 4$ chi squares shour that, most notably, the districts that stress the individual assessment function most frequently reject certain functions for testing data. On the contrary, statistical sunimaries, profiles to pupils and parent conferences are not related to type of district or to pronounced tendency.

The chi square statistic does not enable one to determine the source of the difference within each $2 \times 4$ table. As has been done in the past, the reader is invited to seek out his uwn interpretations of the spreads. Exercising that privilege, the authors note that the Type E districts appear markedly diffient on most dinensions from the others and that the Type 1 disticts in mary cases establish their own pattern. (Note $d, f, g, j$ and $m$ for the latter). The four occurrences of total deviation ( $100 \%$ or 0 ) surprise only by their totality.

Certain methods of test reporting, then, appear to bear a relationship, in their popularity, to certain kinds ef districts. For some fenctions there appear to be philosophical purposes, not spontaneous operations as has been charged.

## Assisting Teachers to Use Results

It is sometimes viewed with irony that districts spend rather generous amounts of time and woney to secure test data and then invest little or nothing to aid the teachers in the knowledge recessary to good use. Azain, the question under consideration is the relationship between district-type and the attendant endeavors to encourage teacher use and understanding.

The survey question asked for the provisions made by the system to assist teachers and other personnel to use tests more effectively. Four choices were ofiered. The format of Table XXXIII and its reading is the same as that of the previous table.

Respectable chi squares were attained in three of the four cetegories but only the provision of "at least annual department, grade or divisional neetings" attained statistical significance. Thete appens ther, to be onty a modest relationship between teacher in-setvice practice and district i? pe.

Table XXXIII
Percentage Distribution of 'Yes' Responses Regarding Provisions for Test Use

|  | Type of District by Test Use |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Provisions to use <br> test data | M | R\&D | E | Chi-square <br> value Yes <br> vs. No |  |
| General, at least annual, <br> faculty meetings for test data | 27 | 38 | 14 | 33 | 1.13 |
| Building, at least annual, <br> faculty meetings for test data | 54 | 58 | 0 | 0 | 7.38 |
| Department, grade or <br> divisional meetings, at <br> least annual | 25 | 63 | 50 | 63 | $8.41^{*}$ |
| In-service training other <br> than faculty meetings | 29 | b7 | 25 | 40 | 5.65 |

*chi square significant at 05 level of confidence or greater

## Chapter VI

## TEST USAGE:

## DISTRICT CHARACTERISTICS

An additional way of looking at the use of test information, while essentially a non-dynamic one, is the potentially interesting act of relating test use to some of the physical attributes of a district. Speculation may be made on the relationship of use characteristics to the size of a district and to the political-geographical climate. Further, when these two characteristics are compounded one has the increased capability of seeing test use set in a relatively meaningful framework.

The base data in this section of the report derive from the questions in the survey that inquired into the population of the districts and into their character. The latter offered distinctions between rural, urban, suburban, metropolitan and some possible combinations of these. Analysis of the darla suggested thee population categories and four character divisions. This resulted in a $3 \times 4$ matrix, only two of whose cells were not penetrated. Graphically, the chart below presents the lay-out.

## Chart 1

Compound District-type, With Identifying Number Code

| Population Served | Rural | Rural-Urban | Urban- <br> Metropolitan | Suburban |
| :--- | :--- | :--- | :--- | :--- |
| 5,000 or less | Type 1 | Type 2 | $\cdots$ | Type 3 |
| $5,000 \cdot 25,000$ | Type 4 | Type 5 | Type 6 | Type 7 |
| 25,000 or more |  | Type 8 | Ty se 9 | Type 10 |

While any division of the districts into a matrix-format is open to question, the one adopted provided a modest number of zero cells (2) and left the rest with a fairly uniform distribution. The present system shows there to be no nural districts of greater than 25,000 population, which is highly believable, nor are there any urbar-metropolitan districts of less than 5,000 , also not too unreasonable.

Chatt Il shows the number of districts that fell into each category. Th: ten types of districts thus identified were !!sed to assay the responses to the four rest ase questions in the survay. Each will be discussed separately below wis-a-vis the classification system.

Reported are chi scuere significance levels for the values in the tables for the compound system as well as its components, labeled "size" and "character".

| Chart II Frequency of District Type |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Population Served | Rural | Rural Urban | Urban Metropolitan | Suburban |
| Under 5,000 | $\begin{gathered} 152 \\ (11) \end{gathered}$ | $\begin{gathered} 48 \\ \text { (II) } \end{gathered}$ | $\cdots$ | $\stackrel{7}{(I I I)}$ |
| 5,000 - 25,000 | $\begin{array}{r} 34 \\ \text { (iv) } \end{array}$ | $\begin{aligned} & 88 \\ & (\mathrm{~V}) \end{aligned}$ | $\begin{gathered} 10 \\ (\mathrm{Vi}) \end{gathered}$ | $\stackrel{49}{(V I I)}$ |
| \% 5,000 or more | - | $\stackrel{8}{\text { (VIIli) }}$ | $\begin{gathered} 14 \\ (1 \times) \end{gathered}$ | $\begin{gathered} 26 \\ (X) \end{gathered}$ |

## District-Type Related to Declared Use

The rilation of the physical attributes of school districts to the ways in which they report the use of the data is shown in Table XXXIV.

Only two modest iendencies manifest themselves in the table. There appears to be a statitically significant relationship between the character of the district and the first two options. With increased urbanization of a district there is a tendency to use the data as shown. However, the key element, the compounding of the two attributes as detailed in the preceding charts. produces essentially nothing. Test use, then, when defined by the present options, appears to be unrelated to district size or character.

Table XXXIV
Significance of Chi Squares Between
Characteristics of Districts and Declared Uses

| Ways Test <br> Results Are Used | Variable I <br> District Size | Variable II District Chara: ter | Compounded District-type |
| :---: | :---: | :---: | :---: |
| Teacher diagnosis of pupil strengths and weaknesses | N.S. (not significant) | . 01 | iN.S. |
| Evaluation of currizulum | N.S. | . 01 | N.S. |
| Develop educational goals | N.S. | N.S. | N.S. |
| Teacher analysis of class achieve.nent | . 10 | N.S. | N.S. |
| Class placement | N.S. | N.S. | N.S. |
| Identification of exceptionals | N.S. | N.S. | N.S. |
| To determine reasonable levels of achievement | N.S. | N.S. | N.S. |
| Evaluate Educational research | N.S. | N.S. | N.S. |
| Develop paient under. standing of child | . 10 | N.S. | N.S. |
| Motivate increased learning | N.S. | N.S. | N.S. |
| Develop in-service progran for teachers | N.S. | N.S. | N.S. |

## District-Type Related to Data Placement

A more productive analysis of the survey data related the district characteristics to the placement of test information in the buildings. While of itself the physical location of test scores mav seem unimportant, experience suggests that access has to do with responsibility and control. Data must be visible and available to its potential user if he is to be a frequent consumer.

The table again reports the chi square vaiue of the $6 \times 19$ matrix. Respondents were asked to select the one most correct response, sa a choice-by-choice selection or rejection cannot be used with these data as they are in the next two tables. The vertical dimension describes the options, the horizontal describes the ten districi-types. The cell values are the percentage of districts of cach type indicating any choice.

The chi square value of the lable data is statistically significant at the . 01 level of confidence (97,23). Collapsing the categories did not markedly improve the statistic here or throughout the rest of this analysis.

Suburban districts of middle size are proportionately much more counselor-bound than others and eltarly reject the central office and principal's office as a source of test information.

Other interpretations are left to the reader. Again, the chi square statistic does not permit localization of the trends away from statistical norm.

## District-Type Related to Interpretation to Public

The survey instrument inquired into the methods used to report test data to parents, teachers, pupils, administrators, etc. These responses have been related to the individual and compound districe characteristics. The data in the table follow preceding formats, including the district size and district character categories. The cells report the significance levels of each situation. Becouse the stimulus-question asked for as many choices as were appropriate, the chi-squares have been consputed on each response category, the choice being yes or me for each.

Junping out fron the page are the highly significart choices centering around reporting summary statistics to leachers. administrators and community groups. Though 11 a initial language is different, the "test analyses for leachers" is, in citrossct. pediaps of the same sevire as the "summary statistiss" for different groups. Clearly, there is a celationship between this use for test data and diserici characteristic.
Table XXXV
Percentage Distribution of District-Type vs. Test Data Placement

|  | District-Type |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Where Results Are Kept | 1 | \\| | III | IV | $\because$ | VI | VII | VIII | IX | X | Total |
| Placed in central office foles and avail able to any teacher | 43 | 44 | 14 | 38 | 30 | 10 | 12 | 13 | 0 | 15 | 22 |
| Placed in principal's office and available through the principal | 19 | 6 | 29 | 18 | 17 | 10 | 12 | 37 | 22 | 19 | 16 |
| Placed in counselor's office and available through the counselor | 26 | 40 | 29 | 35 | 27 | 30 | 53 | 0 | 14 | 27 | 31 |
| Kept in the homeroom | 4 | 6 | 0 | 0 | 10 | 20 | 6 | 25 | 21 | 20 | 8 |
| Data confidential: not available generally to reachers | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| Other | 6 | 2 | 8 | 9 | 16 | 30 | 15 | 25 | 43 | 19 | 12 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

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Significant differences, though not as sharp, are found alse with respect to reporting data to parents and community groups. They do not occur when the focus is on the child. Accordingly, the quasi-administrative practices of classifying children are associated with the physical atrributes of a district. Additionally, individual parent conferences, but not pupil conferences, are related to district size and chacacter.

Table XXXVI
Significance of Chi Squares Between Characteristics and Interpretation Methods

| Methods used to interpret tests | Variable I District size | Variable II District Character | Compound District-Type |
| :---: | :---: | :---: | :---: |
| Written reports to pupils | N,S. | N.S. | N.S. |
| Written reports to parents | . 10 | . 05 | . 10 |
| Individual pupil con. ferences | N.S. | N.S. | N.S. |
| Individual parent conferences | . 001 | . 05 | . 01 |
| Group analysis with pupils | N.S. | N.E. | . 05 |
| Group analysis with parents | N.S. | N.S. | N.S. |
| Group analysis in com munity | . 005 | . 05 | . 10 |
| Teacher's case studies | . 10 | N.S. | N,S. |
| Test analyses for teachers | . 001 | . 001 | . 001 |
| Teacher institutes | . 05 | N.S. | . 01 |
| Report of summary statistics to teachers | . 05 | . 05 | .01 |
| Report of summary statistics to administrators | . 001 | . 001 | . 001 |
| Report of summary statistics to community groups | . 001 | . 001 | . 001 |

In the matter of asing lata to understand student growth and report it the distribution of the responses was sufficiently random so tha: differences could have occurred by chance alone.

## District-Type Related to Improved Use

Inquity into the in-service training or teacners to better utilize the information contained in standardized test data produced a question that assessed school practices on the same dimensions as shown in Table XXXVI.

The question asked for appropriate descriptions of means used to "assist teachers . . . to use tesi results". Accordingly, the four choices are presented on a yes-no basis providing individual chi square analyses fer each. The data reported in Table XXXVII are significance levels for each category.

Table XXXVII
Significance of Chi Square 8 etween Characteristics and In-Service Provisions

| Provisions used for in-service training | Variable 1 District Size | Variable II District Character | Compound District-Type |
| :---: | :---: | :---: | :---: |
| At least annual general facuity meetings devoted to test interpretation | . 005 | N.S. | . 10 |
| At least annual buifoing faculty meetings devoted to test interpretation | . 001 | . 001 | . 001 |
| At least annual departmental grade, divisional meeting for test interpretation | . 001 | 001 | . 001 |
| In-service activities other than faculty meetings for rest incerpretation | . 005 | . 001 | . 01 |

The implications of these data are broader than they at first seem. The tone, control, and specificity of a district-wide meeting are different than, say, a grade kevel meeting, regardless of size. "General" faci.ly meetings can only be general in their focus.

The table shows clearly significant diffcrences between the categories. The apparently universal phenomenon of faculty meetings seems to occur in a non-predictahle pattern when charactei is concerned but is highly dependent on district size.

All other differences are significant indicating a relationship between the size or type of district and the techniques employed to assist teachers and other personnel to better understand test information. The table, however, does not indicate the direction taken by this relationship. If other findings of this study are to be taken into account it might be necessary to conclude that the direction of the in-service efforts are anything but positive.

## CONCLUSION

In this report the authors have attempted to show, in addition to the standard desciption of testing practices throughout the slate in 1970, that the wa; $s$ in which test data are utilized may be related to other factors in the wistrict. It has been demonstrated, for example, that districts of similar dimensions tehave differently than dissimilar districts with respect to controlling test information, in-service training of teachers fr test use, and reporting data to the community. In other areas there appear to be no differences.

An increasing proportion of districts in Michigan report structured testing programs with organized committees assuming the greatest role in the managenent of these nctivities. Counselors are seen as bearing the primary responsibility in secondary schools for operation of program, dissemination and interpretation of results, and education of potential test users.

When taken as single testing situations there is, even yet, little particularization of tests to the specific needs of a student; rather the trend continues to be, "What's good for one is good for all".

One view of the data suggests that test efoults are fully disseminated to child and parent alike. However, another perspective suggests the more tempered view that it is still difficult to ascribe adequate usage and understanding to the infcimation derived from testing programs.

Implanted in much of this repert is, of course, a series of values held jointly by the authors, having to do with the puiposes and uses to which test data are put. The articulation of these values has been a means of their expression: more use should be given to test data, which can only be accomplished by creating more biterate consumers. The reported activities of

Michigan school districts suggest that in certain places the locks may be coming off the files so that the information is not the sole domain of a select few.

This survey has allowed the Michigan school districts to state their testing policies and has attempted to interrelate the various elements of these practices. The time is ripe for a study to investigate relationships, if any exist, between these test practices and the quality of the district when measured against some external criteria.

There is need for an indepth study to determine if the quality of a testing program makes any impact on the education within the district. In other words, does the testing prugram really assist the teachers to do a better job of teacining; or the counsellors to do a more cffective job of advising students; does all this really make a difference in the final product, the student? After all, isn't that what education is all about?

