A STUDY OF WHOM TEST SCORES ARE INTERPRETED TO BY MONTANA HIGH SCHOOL GUIDANCE DIRECTORS AND HOW THEY EXPECT THE INFORMATION TO BE USED

by

Marjorie N. Monson

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ABSTRACT

The purpose of this study was to determine what percentage of Montana high school guidance directors interpreted test scores to administrators, teachers, students, and parents as separate groups. Furthermore, it was to determine how the directors, who interpreted test scores, expected each group of people to use the interpreted information.

An inventory was mailed to a random, stratified sample of thirty guidance directors in Montana high schools. Ten directors were chosen randomly from each of the three strata of schools--Class A, B, and C. The inventory was composed of four open-ended questions designed to determine what groups guidance directors interpreted tests to and how they expected the people to use the information. The questions were determined through consultation with an advisor of counselor education at Montana State University. A letter explaining the nature of the study and a stamped, self-addressed return envelope were sent in addition to the inventory. One hundred percent of the sample returned their inventories.

The four questions were examined individually. Percentages were computed for test interpretations made to administrators, teachers, students, and parents as separate groups. Percentages were also computed for test interpretations made to each group comparing directors from the different strata. The expected uses of the interpreted test scores by the separate groups of administrators, teachers, students, and parents were also computed. The expected uses of test scores by each group were ranked in descending order on the basis of the percentage of guidance directors that indicated the specific use. Data was also computed to compare how directors in the different strata expected the different groups to use the interpreted scores.

The main conclusions arrived at as a result of this study: (1) Most guidance directors in Montana high schools seem to be interpreting test scores to students. (2) A majority of the administrators in Montana have test scores interpreted to them. (3) It would appear that teachers are not having test scores interpreted to them by enough of the guidance directors. (4) Parents seem to be the group most neglected by directors when interpreting tests. (5) It appears that directors in Class A schools do the most test interpreting while directors in Class B schools did the least amount of interpreting test scores. (6) It appears that most guidance directors have very few expected uses of interpreted test results.

Recommendations made were: (1) More interpreting of tests should be done so that all administrators, teachers, students, and parents are provided with this service. (2) Guidance directors should be provided with more knowledge concerning the uses of test scores. (3) Schools should provide their guidance directors with reasonable work loads.
CHAPTER I
NATURE OF THE PROBLEM

Guidance services have gradually developed in the twentieth century. The importance of the various guidance services has increased until today they are conceived as necessary, crucial, and pervasive features of the school's educative function. These services are grouped into a guidance program, which is to assist students in making intelligent choices, developing an understanding and acceptance of self, and utilizing this knowledge to attain optimal development of their abilities. Another aim of the guidance program is to help provide each student with the best possible education for him. These aims of the guidance program can only be achieved by the gathering of accurate and complete information which is effectively used.

One of the important services within the guidance program is the testing program. An effective testing program can provide much useful information that can be used in relation with other data. This information can be extremely helpful in aiding the student to understand himself and in helping the administrator and teachers provide him with an education more suited to his needs.

The testing information to be helpful, however, must not only be gathered, scored, and recorded but it must be interpreted to administrators, teachers, students, and parents. Testing is of little use unless these people are able to use it. Merely understanding the information is not enough. The individuals in these different groups must also make effective use of this information. Often it is necessary for guidance personnel, who as a group have generally had training in tests and measurements, to
not only interpret the information but to guide others in the use of it. The testing program can only be effective if this is done. Still, today, many schools' testing programs consist of testing without interpretation. Also, even when tests are interpreted, often it is in a quick, rote manner which reveals no real expectations for use of the information presented. Rather, the interpretation is done merely as something that has to be done.

Two problems related to the testing program were investigated in this study. The first problem investigated was to determine what percentage of Montana high school guidance directors interpret test scores separately to administrators, teachers, students, and parents. Secondly, the study was a determination of how guidance directors, who interpreted test scores, expected the different groups of people to use the information.

A further discussion of test interpretation and its applications is presented in the next chapter.
CHAPTER II
BACKGROUND OF THE PROBLEM INVESTIGATED

The Testing Program

Historically, the individual has been the center of our society and education reflects this value. The concept of the fundamental worth of the individual is basic to our educational system. As Colver (1961) points out, the responsibility of the school is to provide each student the kind of education most suitable for his abilities, interests, and needs. A great deal of information must be obtained so that the school and the guidance department can provide each student with the best possible education. The more information known about a student the better the school, teacher, and counselor can work with him. Fredrickson and Marchie (1966) contend that to gain the information, it is necessary for schools to measure the performances of individuals in areas that will contribute to a more valuable education and aid students in making wise personal, vocational, and educational decisions.

The process of educational measurement is usually done through a testing program. Berdie, Hagenah, Layton, and Swanson (1963) state that a testing program is when a school has a system of testing designed to meet educational needs and to provide regularly information about specific groups of pupils. The testing program, according to Glennen (1965), is generally to be the responsibility of the guidance department. In the United States there is a great deal of difference in testing programs. Some testing programs are highly elaborate, calling for a complexity of group testing for all grade levels, as well as individual tests when
needed. The program in other schools calls for intensive group testing at selected grade levels only. Still in other schools, the test program is spotty and disorganized. It is obvious that these different types of test program provide different amounts of information. Even gathering a complete set of data, however, is not enough—it must be used. As programs differ in the amount of information gathered, so do they differ in the amount of information provided to various people to use. This problem of what extent test scores are actually used is a part of the proposed study. Some schools actually do very little with test scores. An example of this would be when a number of comprehensive tests is given to a student. The tests are scored, recorded, and neatly filed away after the counselor has glanced at them. The whole testing process has been a waste for no use of the tests has really been made.

It is necessary for various people to be involved in a testing program to make it adequate. The testing program must involve the total staff of the school as completely as possible. The needs of the entire staff should be met by the testing program. It is for this reason that Hill (1965) asserts that a school should design its testing program in such a way that the results will help to improve instruction and guidance for students as a group and as individuals. It is essential for a good testing program to provide information which the entire school staff is prepared to use, and is capable of using, to improve the total education program. As Colver (1961) points out, the program must support and improve the total education and not be a separate entity in itself nor is it an end in itself.
Testing programs must also consider the students taking the tests. Colver (1961) maintains that a good testing program should not require an individual student to spend the time and effort taking tests unless that pupil, either directly or indirectly, will receive some benefits from the activity. This does not exclude the use of tests for research as long as the pupil will ultimately profit. The important thing is that the test results are used and used in such a way that they will help the students.

There is one other group that should be involved in a good testing program besides the school staff and the students. This group is the parents of the students. Often the parents are totally ignored or at least their role in the testing program is minimized. As Berdie, Hagenah, Layton, and Swanson (1963) stress, no other single influence is as effective in determining the direction of the child's life as his relationships with his parents. Because of this, it is necessary that parents know as much about the school and their children as possible. The guidance program by using the testing program can provide at least part of this information.

**Test Interpretation and Use**

As has been pointed out, it is necessary that a school's guidance department involve a number of different people to have an adequate testing program. Hill (1965) reaffirms this by stating that administrators, teachers, counselors, students, and parents should be involved in the testing program. It is necessary that all parties function with clear concepts of the uses and the limitations of testing. More than just understanding the uses of tests, however, is necessary. As Ross (1954)
affirms, the actual application of the test results is the crux of the whole testing program. Everything that has gone before is really preliminary. Whatever value the tests are to have depends upon the use made of the results. So how the guidance department expects the individual groups of administrators, teachers, students, and parents to use test results will be considered in the proposed study.

When test scores are interpreted to administrators there are several ways in which they can use the information. One area where test results can aid the administrator is in interpreting the school to the community. According to Noll (1956), there seems to be an increasing interest on the part of the public in the activities and problems of the schools. Tests can be very useful in showing how well the school is realizing its purposes. Black (1959) points out that achievement tests can be a great help when the public asks questions. Comparisons with a recognized standard becomes available immediately. Adverse criticisms can sometimes be answered promptly and satisfactorily.

Because education has become a servant of all our purposes, its effectiveness is a concern of all. Colver (1961) states that the results of the testing program can give the administrator an indication of how well the total school system is functioning academically. The administrator may make comparisons between geographic areas within the system, between different socio-economic groups, or between any other appropriate grouping.

Administrative decisions about students can also be aided by test results. As Nunnally (1964) explains, test results can help determine
grade placement of a transfer student, especially if the student is from an area where schools operate quite differently. Results can help to determine whether or not an apparently slow learner should be removed from a regular school curriculum and given special schooling.

The testing program provides help for general curriculum planning too. Tyler (1966) says that the educational tasks now faced require many resources that must be wisely used to produce the maximum results. Decisions about the resources to be included in the curriculum is dependable on comprehensive and valid data about the progress of the students. Blade (1961) asserts that by checking test results and norms it is possible to determine in what particular areas a class, as a group, appears to deviate from anticipated results. Then the school can concentrate on those areas that indicate a need for special provisions and for remedial work. If the school is carrying on an experimental program in new or different teaching methods, Colver (1961) stresses that the testing program is of value in objectively evaluating the outcomes of these experimental programs.

Ability classification, or homogenous grouping of students can be another use of test results. Generally, the students are grouped on intelligence and/or achievement scores. While ability grouping has been rather a controversial subject, Olsen (1967) reports that to a large extent it still is widely used and practiced in the public schools of this country. The practice rests on the assumption that bright children learn more when they are separated from their slower peers and grouped for instructional purposes with other bright children. It is argued that if the range of ability and achievement is narrowed within a specific class the
quality and quantity of learning can be increased.

Olsen (1967) points out that the validity of this assumption is a major issue today because it affects the organization of the school and the kinds of social and intellectual expression to which students are exposed. It is also criticized because ability grouping further involves broad social questions. The researcher points out that when a child is placed in a particular ability group he is committed to an education of a definite caliber. Olsen goes on to show that children from lower class families tend to be placed in the low ability groups. Generally the better teachers are assigned to the higher groups, with the result that the children who most need the best teaching do not receive it. The student who is placed in a slow class quickly learns that he is in the "stupid" class and feels intellectually inferior.

Olsen (1965) goes on to state that in the face of the social and psychological price that is paid for ability grouping, it is ironic that research clearly indicates that ability grouping in itself does not improve achievement in children. Research generally shows no significant difference in school achievement because of ability grouping.

The school, if it is to perceive of itself in engaging in educating pupils, must have the view that testing, taken in the broadest sense, is indispensable to teaching. Dryer (1967) comments that for years lip service has been paid to the idea that testing is an "integral part of the educational process," but in fact a considerable part of the testing that goes on in schools is divorced from teaching. Similarly, Davis (1965) states that while a teacher, with a proper orientation, could make the
greatest use of the test findings, he is usually ignored.

It is vital that teachers are oriented in the proper use of test scores. Only then can they use the results effectively. However, often teachers do not have this knowledge. In a study by Fredrickson and Marchie (1966) the findings showed that a majority of the teachers in the study failed to question test scores as fixed or mentioned the test's possible limitations in use. Fredrickson and Marchie indicated that this should cause consideration about the guidance counselor assuming more responsibility in the teachers' interpretation of test scores. As Fine (1966) points out, the guidance program has the responsibility of providing consultant services to other staff members.

Once a teacher has the proper orientation there are a variety of uses for test results. Colver (1966) believes that one of the most important functions of the testing program is to provide the teacher with an understanding of his students' abilities, achievements, and interests and to assist him in planning his instruction accordingly. The teacher is responsible for manipulating the environment and instruction in the classroom to provide the best learning conditions for all students. Dryer (1967) maintains that this can only be done when the necessary amount and quality of information is available.

Test results can assist a teacher in diagnosing individual weaknesses of a student or areas of weakness of an entire class. Davis (1965) asserts that a professional teacher can use the test scores to find subject content areas which should be emphasized more or less. The strengths and weaknesses of individual students can also be determined by using test scores
according to Davis. The researcher further states that this knowledge of individual achievement can be especially helpful to teachers. Special assignments and opportunities can be provided for better students and provisions for remedial instruction can be made for those whose achievement is outstandingly low.

The fact that results of interest or preference tests can be used as guides to the teacher in finding ways and means of motivating the students is suggested by Colver (1961). He states that these tests may provide indications of areas of interest that can be tied into practically any subject matter. This ties the classroom situation to the student's particular area of interest.

The guidance program as it is now conceived focuses on assisting students in learning to make their own decisions. Sprinthall (1965) says that guidance should enable the student to make reasonably "wise" and examined decisions appropriate to his stage of educational development. If a student is to make these decisions, it is essential that comprehensive information become available to the students to form the boundaries for decisions and choices.

A part of this comprehensive information about a student is gathered by tests. When providing test information to students, Dr. J. W. Wrightstone, in the article "Reporting Test Scores" (1960), stresses three rules to be followed. First, test scores should be discussed with the individual students in a confidential manner. The confidential nature of test scores should be stressed. Second, test scores should be in approximate terms or rank to allow for error of measurement. Finally, the scores should not
only be professionally honest, but should also be tactful.

Once the test scores are interpreted to students, the information can be helpful in several ways. Colver (1961) asserts that one of the most important uses of tests is to aid in student self-appraisal. The researcher also points out that the results of the testing program can indicate to the student how he compares with his peers, in what subjects he is particularly strong, those in which he needs to do more work, and what his chances are that he will succeed in a chosen vocation. Colver says it can also help the student with the exaggerated idea of his capabilities understand and accept his limitations. Then the student will be more able to arrive at realistic goals. Similarly, Colver says that test scores can help the capable student by making him aware of his capabilities.

Parents, too, can profit from a test program when test scores are interpreted to them. Coater (1962) declares that parents have the right to know whatever the school knows about the abilities, performances, and problems of their children. The telling of test scores, however, is not sufficient in itself. Parents may not be able to interpret the information related to testing data. It is necessary to interpret the information so that the parents fully understand it and the implications of the information.

Colver (1961) points out that parents frequently set goals for their children that are not consistent with their children's abilities, interests, and personality. He goes on to say that some parents expect and demand their child seek objectives and goals that the particular child may not have the ability to achieve. In this case, the results of the testing
program may help the parents recognize and accept their child's limitations. Similarly, Colver says other parents do not recognize the possibilities that may be open to their children. Then the information of the test scores may lead parents to encourage the child to obtain the kind of training appropriate for his ability.

Research Concerning Testing in Montana

Very little research similar to the proposed study has been done in Montana. A survey by Aarestad (1964) pertaining to testing programs in Montana does provide some useful data. The survey by Aarestad was conducted to determine what standardized tests were most commonly used by high school guidance programs in Montana, and for what purposes test results were used. A questionnaire was sent to all Montana high schools with guidance departments. A return of eighty-one and five tenths percent was achieved. The questionnaire consisted of two parts. The first part was a list of commonly used standardized tests, with space to list additional tests. The second part was a list of twenty-five statements relating to the uses of test results. The guidance counselor was to check the tests given and the uses of the results.

The data collected by Aarestad (1964) concerning test uses showed test results were interpreted to students in sixty-nine and four tenths percent of the cases while on thirty-three and nine tenths percent of the returns parents received explanations of test scores. Teachers were allowed to examine test results and form their own conclusions in forty-nine and two tenths of the cases. No attempt was made to determine what
percentage of administrators had tests results interpreted to them.

The researcher also listed other uses of test results as determined by guidance counselors. Since these uses were determined by the guidance personnel, it should give some indication of how guidance directors might expect interpreted test scores to be used. Aarestad (1961) found that seventy and three tenths per cent of the counselors said that a student's curriculum was partly determined by test scores. It was found that fifty-four and seven tenths percent of the counselors used test results as the basis of counseling interviews. Twenty-eight and one tenth percent of the returns indicated that standardized achievement tests were used in decisions of retention or promotion. Thirty-nine percent of the answers stated that test scores were used in ability grouping and in thirteen percent of the cases test results determined entrance requirements into school.

The study as a whole appeared to be good. However, there appeared to be two limitations. One limitation would be that in providing a list of uses for tests the researcher might have suggested answers to the counselor. If the counselor felt that a certain use was important he might have checked it even though it was not included in his program. Secondly, the actual person using the test scores was not consulted in some cases. So, some of the reported test uses could be based on how the counselor believed the test scores were used.

There is little doubt that a guidance department can help administrators, teachers, students, and parents, by interpreting test scores to them. But in actuality what is done? This study is concerned with what
percentage of Montana high school guidance directors interpret test scores to the various people that can use the information. As has been pointed out, once the test scores have been interpreted there are various ways that administrators, teachers, students, and parents can use the information. When a guidance director interprets test results he has expectations as to which of the ways the people will use the information. Part of the study also deals with how guidance directors expect the different people to use the interpreted test scores.

The following chapter provides a more detailed description of methods used in the study.
CHAPTER III

METHODS

The purpose of the study was to survey a random stratified sample of Montana high school guidance directors to determine what percentage of them interpreted test scores to administrators, teachers, students, and parents as separate groups. Furthermore, it was investigated how directors who interpreted test scores expected each group of people to use the information. This chapter provides information relating to the sample, the inventory, the administration of the inventory, and the analysis of the data in the study.

Inventory Sample

Thirty guidance directors of Montana high schools made up the random stratified sample. The names and addresses of all full time guidance directors in Montana were obtained from the State Department of Public Instruction. Only full time directors were considered for the study. This was done mainly to eliminate those individuals who served both as the administrator and guidance director in some of the smaller schools in Montana.

All schools in Montana are assigned to the classifications of A, B, or C, depending on the number of students enrolled. The classification of A denotes the largest schools, while the classification of C indicated the smallest schools. The researcher wrote to the State Department of Public Instruction, which keeps a list of the schools in the various classes.

Three strata of schools--Class A, B, and C--were determined from the classification. All the full time guidance directors in the stratum of
Class A were placed in a box, and ten directors were randomly chosen for the sample. Next all full time guidance directors in the stratum of Class B were placed in the box, and ten directors were chosen randomly. Finally, all full time directors from the Class C stratum were put in the box and ten directors were randomly drawn out to be included in the inventory sample. This made an inventory sample of thirty. Since all the inventories were returned, this also made a working sample of thirty. Conclusions will be drawn about all guidance directors in Montana schools.

Construction of the Inventory

An inventory composed of four open-ended questions was developed for gathering data for this study. A copy of the inventory is shown in Appendix A. The inventory was constructed through consultation with the researcher's advisor in counseling education at Montana State University. Open-ended questions were used to reduce the suggestive factors influencing the answers of the guidance directors. It was felt that if a list of test result uses was presented, it could possible influence some directors' replies. A guidance director could possibly check some of the presented uses he believes would be effective, while in actuality he had not been concerned with them in his present testing program. The inventory was also limited to four questions to increase the probability of getting a higher rate of return. Finally, a trial inventory was administered to a group of graduate students in guidance and counseling in an effort to eliminate ambiguity that might exist in the wording of the questions.

The four open-ended questions were all very similar, only each related
to a different group of individuals. The four questions asked: If you interpreted test scores to administrators, how do you expect the information to be used? If you interpret test scores to teachers, how do you expect the information to be used? If you interpret test scores to students, how do you expect the information to be used? If you interpret test scores to parents, how do you expect the information to be used?

When asking these questions, the fact that the researcher was interested in test "interpretation" was stressed. The guidance directors were instructed to answer a question only if they interpreted test scores to the particular group mentioned in the question. When they did not interpret test scores to the specific group mentioned in the question, then they were to leave it unanswered. For example, if a guidance director interpreted test scores only to students and their parents, he would answer the questions relating to students and to parents. He would leave the two questions that related to interpreting test results to administrators and to teachers unanswered.

As indicated, if test scores are actually interpreted to one of the groups of people, then the question relating to the specific group was to be answered. The guidance directors were instructed to answer the questions by indicating how they expected the interpreted information to be used by the particular group being considered in the question. A guidance director, for example, interpreted test scores to his students. He would then answer the question concerned with test interpretation to students by indicating in his own words the different ways he expected these students to use the information.
Administration of the Inventory

Since the sample included guidance directors located throughout Montana they were surveyed by mailing the inventory to them. It was believed a mailed inventory would save time and money. Furthermore, this would allow all guidance directors the possibility of being included in the sample. Gathering information by means of a personal interview would have required restriction of the sample to directors who were located within a range of reasonable accessibility. A letter explaining the nature of the study (see Appendix B) and a stamped, self-addressed envelop were mailed in addition to the inventory.

Twenty-six guidance directors responded to the initial mailing. A follow-up was conducted two weeks after the initial mailing of the inventory for those guidance directors who had not yet replied. This procedure resulted in a 100 per cent return.

Analysis of the Data

The central problem of this study was to determine what percentage of Montana guidance directors were interpreting test scores to administrators, teachers, students, and parents as separate groups.

Each of the four questions was examined separately and percentages were computed for test interpretations made to administrators, teachers, students, and parents as separate groups on the basis of the number of questions relating to each group that was answered. For example, the first question relating to the number of test interpretations made to administrators was checked on all thirty inventories. Since only the guidance
directors who actually interpreted test scores to administrators answered
the question, by compiling the number of answered and unanswered questions
it was possible to determine the percentage. This procedure was also used
with the three other questions relating to teachers, students, and parents.
In all cases the percentages were rounded to the nearest whole number when
the results were reported in the chapter which follows.

The second problem of the study was to determine how the guidance
directors who interpreted test scores expected the different people to use
the information. Again each of the four questions was checked separately
to determine how the guidance directors expected the different groups to
use the information gained from the test interpretations. The answers for
each question were ranked in descending order on the basis of the percent¬
age of guidance directors that indicated the specific use. Again, using
the first question for an example, the researcher checked the question
concerning interpretation to administrators on all inventories. Since not
all of the directors interpreted tests to administrators only part of them
had been answered. The directors answering the questions did so by indi¬
cating the different ways they expected administrators to use the inter¬
preted information. All the different uses mentioned on the inventories
were listed and a tally was kept of the number of directors that mentioned
each use. This tally was then used to rank the various uses in descending
order on percentage of expected use. The same process was used for each of
the other three questions. All percentages were again rounded to the
nearest whole number.

The results of the study are presented in the following chapter.
CHAPTER IV
RESULTS

Inventory responses were obtained from all thirty guidance directors. The directors were asked to indicate on the inventory whether they interpreted test scores to administrators, to teachers, to students, or to parents. When test scores were interpreted to certain groups, the director was then asked to list how he expected individuals within the different groups to use the information. Percentages, reported below, were computed from the inventory questions. The chapter is divided into two parts: first, a section on the number of directors who indicated that they interpreted tests is presented and then a section follows on the expected uses to test scores.

Test Interpretation

The guidance directors were asked to indicate to whom they interpreted test scores. The following table is a summary of the findings.

Table 1.
Percentage of Montana High School Guidance Directors Who Interpret Test Scores by Class of Schools

<table>
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<th>Interpreted to</th>
<th>Percentage</th>
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<th></th>
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<tbody>
<tr>
<td></td>
<td>Class A</td>
<td>Class B</td>
<td>Class C</td>
<td>Total</td>
</tr>
<tr>
<td>Students</td>
<td>100</td>
<td>90</td>
<td>90</td>
<td>93</td>
</tr>
<tr>
<td>Administrators</td>
<td>60</td>
<td>50</td>
<td>60</td>
<td>57</td>
</tr>
<tr>
<td>Teachers</td>
<td>50</td>
<td>20</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>Parents</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>23</td>
</tr>
</tbody>
</table>
The table indicates that most guidance directors (93 per cent) in Montana high schools did interpret test scores to their students. When comparing different classes of schools in Montana, the study showed that all Class A guidance directors interpreted test scores to students. Class B and Class C guidance directors interpreted test scores to their students in 90 per cent of the schools.

The next group which most frequently had test scores interpreted to them were the administrators. Guidance directors interpreted test scores to administrators in 57 percent of the cases. Test interpretations to this group were quite similar between classes of schools. Class A and Class C schools' directors appeared to interpret test scores to administrators slightly more often that did Class B directors.

Teachers had test scores interpreted to them by only 37 percent of the guidance directors. Test interpretation to teachers was the highest in Class A schools with 50 percent of them having the services provided. Meanwhile, only 20 percent of the teachers in Class B schools had test scores interpreted to them. Perhaps this would indicate that there is a need for more test interpretation for teachers.

Parents least often had test scores interpreted to them. Only 23 percent of the guidance directors indicated that they did provide the interpreted information to parents. Relatively the same amount of test interpretation to parents was done by all classes of schools, with the Class A schools' directors doing slightly more work in this area. Again, this tends to suggest the need for more test interpretative services for parents. This is important since most parents have a great deal of
influence with their children.

In summary, guidance directors in Montana most often interpreted test scores to students and administrators. Directors less often interpreted this information to teachers and parents. The amount of test interpretation to parents was especially low. Consideration should probably be given to increasing test interpretation to teachers and parents since both have much contact and influence with students.

Expected Uses of Test Scores

The guidance directors were asked to indicate different ways in which they expected administrators, teachers, students, and/or parents to use the test information interpreted to them. Table 2., on this page, is a summary of how guidance directors expected administrators to make use of the test scores.

The most often expected use of test scores was for ability grouping of students. Thirty percent of the guidance counselors expected adminis-
trators to use test scores for this purpose. Directors in Class A schools (50 percent) most often expected test scores to be used in ability grouping while Class C directors (10 percent) least often expected this use. Perhaps this difference between classes of schools could be explained in part by the fact that many of the Class C schools in Montana are so small it would be impossible to do any grouping of students. Twenty-three percent of the guidance directors expected the administrators to use the test data in planning the curriculum for the school. Directors in Class C schools (40 percent) most often listed this expected use while only 10 percent of Class A directors mentioned it. Understanding class achievement was an expected use of test information by administrators in 20 percent of the cases. Thirty percent of the directors in Class C schools mentioned this while only 10 percent of the Class B directors mentioned it. The use of test scores to evaluate subject matter being taught was mentioned by one director.

The guidance directors listed five ways they expected teachers to use interpreted test scores. These are summarized in Table 3, on the following page.

Twenty-three percent of the guidance directors expected teachers to use test scores in meeting the individuals needs of the students. This use was most often reported by Class C guidance directors (40 percent). Similarly, 23 percent expected teachers to use the data to learn the students' weak and strong achievement areas. Thirty percent of the Class A and Class C directors indicated this use while only 10 percent of Class B directors mentioned it. Thirteen percent expected teachers to use
test scores to help determine if their students were working up to their ability. A small percentage of the directors mentioned the expected use of the data for aiding the teacher in evaluating his own effectiveness. Only one director mentioned the teacher using the test scores to help students plan realistic goals. This could, perhaps, be a rather neglected area of which the directors should be more aware.

Table 3.
Percentage of Directors in Three Classes of Schools Who Expected Uses of Test Scores by Teachers

<table>
<thead>
<tr>
<th>Expected Uses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class A</td>
</tr>
<tr>
<td>Meeting the individual's needs</td>
<td>10</td>
</tr>
<tr>
<td>Learning students' different achievement areas</td>
<td>30</td>
</tr>
<tr>
<td>Determining if students are working up to their ability</td>
<td>20</td>
</tr>
<tr>
<td>Evaluating his own effectiveness</td>
<td>20</td>
</tr>
<tr>
<td>Helping students plan realistic goals</td>
<td>10</td>
</tr>
</tbody>
</table>

Just as the guidance directors did more test interpretation with students than any other group, they also reported more expected uses of the information by the group. The eight expected uses of test scores by students that the directors indicated are summarized in Table 4.

The way most of the guidance directors (63 percent) expected students to use test scores was to learn their strong and weak achievement areas. This use was reported most often by Class A directors (80 percent) and least often by Class C directors (50 percent). Forty-three percent
expected students to use test information in making education plans.

Table 4.
Percentage of Directors in Three Classes of Schools
Who Expected Uses of Test Scores By Students

<table>
<thead>
<tr>
<th>Expected Uses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class A</td>
</tr>
<tr>
<td>Learning strong and weak achievement areas</td>
<td>80</td>
</tr>
<tr>
<td>Making education plans</td>
<td>90</td>
</tr>
<tr>
<td>Developing a realistic self-concept</td>
<td>40</td>
</tr>
<tr>
<td>Making career decisions</td>
<td>20</td>
</tr>
<tr>
<td>Comparing themselves with others</td>
<td>20</td>
</tr>
<tr>
<td>Pointing out interests</td>
<td>10</td>
</tr>
<tr>
<td>Motivating themselves</td>
<td>0</td>
</tr>
<tr>
<td>Re-evaluating study habits</td>
<td>0</td>
</tr>
</tbody>
</table>

This referred to educational plans beyond high school in most cases, although two directors mentioned both educational plans in high school and after graduation. Ninety percent of Class A directors listed this use for test scores while Class B (30 percent) and Class C (20 percent) directors listed it less frequently. This tends to indicate that many of the larger high schools in Montana are putting some stress on the necessity of further education after graduation. Developing a realistic self-concept as a use for test data by students was reported by 30 percent of the directors. Here again, Class A directors (40 percent) mentioned this most frequently with only 10 percent of the Class B directors having mentioned it. Twenty-three percent of the directors indicated that they expected students to use test information in making career decisions. This was indicated most often by
Class B directors. Thirteen percent indicated they expected test scores to be used by students to compare themselves with other students. A small percentage of guidance counselors indicated they expected students to use test scores to point out their interests, to motivate themselves, and to re-evaluate their study habits.

Test scores were interpreted to parents by a rather small percentage of guidance directors. This fact is somewhat reflected in the directors' list of expected uses of test scores by parents. The data is summarized in Table 5.

<table>
<thead>
<tr>
<th>Expected Uses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class A</td>
</tr>
<tr>
<td>Learning their child's achievement</td>
<td>20</td>
</tr>
<tr>
<td>Setting reasonable expectations for their child</td>
<td>10</td>
</tr>
<tr>
<td>Motivating their child</td>
<td>10</td>
</tr>
<tr>
<td>Helping their child make realistic plans</td>
<td>0</td>
</tr>
<tr>
<td>Understanding their child's interests</td>
<td>0</td>
</tr>
</tbody>
</table>

The one use of test scores by parents expected by the largest number of directors was learning their child's achievement in different areas. This was listed by 20 percent of Class A and Class B directors while Class C directors did not mention it. Six percent of the guidance directors listed setting reasonable expectations for their child, motivating their
child, and helping their child make realistic plans as expected uses of test data by parents. One director expected parents to gain understanding of their child's interests from test data.

In summary, the guidance directors who interpreted test scores all had some way they expected the information to be used. The highest amount of consensus was found in the area of expected uses of test scores by students. Most directors expected students to use test data for learning their strong and weak achievement areas, and in making their educational plans. The area with the next highest amount of agreement among the directors was the expected uses of test scores by administrators. Using test information to group students by ability was the way that most directors felt administrators would use the test scores. The consensus about expected uses of test scores by teachers and parents was relatively low among the guidance directors. This was probably affected by the fact that only a small number of the directors interpreted test scores to these groups. Furthermore, even when the directors interpreted test scores to teachers and parents they often had only one expected way that these individuals would use the information. The one single expected use of test scores which was mentioned most often was to learn the student's strong and weak achievement areas. Directors expected teachers, students, and parents to use tests for this purpose.

Conclusions and recommendations suggested by the results of the study are reported in the final chapter which follows.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to survey a sample of Montana high school guidance directors in relation to whom they interpret test scores, and what uses they expect individuals to make of the interpreted test scores.

A random stratified sample of thirty guidance directors of Montana high schools was chosen. Only full time counselors were considered for the sample. The names and addresses of all full time directors were obtained from the State Department of Public Instruction. Three strata of schools--Class A, B, and C--were established from the information supplied by the State Department of Public Instruction concerning the classification of schools by enrollment. Ten guidance directors were chosen randomly from each of the three stratum.

An inventory composed of four open-ended questions was developed for the survey. The inventory was constructed through consultation with an advisor concerned with counselor education at Montana State University. The questions were designed to determine to whom guidance directors interpreted test scores. The questions were also to determine how the directors who interpreted test scores expected the different people to use the information. The open-ended questions did not suggest any expected uses of interpreted test scores to the directors. It is possible, however, that the questions may have made some directors feel it was necessary to indicate that they provided more test interpretation than they actually did.
It also seems possible that the expected uses of interpreted test scores that the directors indicated may have been influenced not only by their expectations and various aspects they stressed, but by what they knew was actually being done with the test information.

The inventories were mailed to the thirty guidance directors. A letter explaining the nature of the study and a stamped, self-addressed envelope were sent in addition to the inventory. A follow-up was conducted two weeks after the initial mailing of the inventory for the four directors who had not yet replied. The procedure resulted in a 100 percent return.

The four open-ended questions were examined individually. Percentages were computed for the number of guidance directors that interpreted test scores to administrators, teachers, students, and parents as separate groups. Answers listing how guidance directors expected the different groups to use the information gained from test interpretation were ranked in descending order on the basis of the percentage of directors reporting the use.

Conclusions

Several conclusions seemed warranted from results of this study.

1. Most of the guidance directors in Montana high schools seemed to be interpreting test scores to students. Ninety-three percent of the directors indicated that they interpreted test scores to students. This seems to indicate an improvement since 1963 when data collected by Aarstad (1964) showed test results were interpreted to students by 69.4 percent of the guidance counselors in Montana. This improvement would seem to be important
since it is essential that students have as much information as possible to form decisions and choices.

2. A majority of the administrators in Montana have test scores interpreted to them by guidance directors. However, it appears that there is still room for an improvement in the amount of test interpretation the administrators receive.

3. It would appear that teachers are not having tests interpreted to them by enough of the guidance directors. In the researcher's opinion 100 percent of the teachers should have an interpretation of test scores. Teachers spend a great deal of time with students and are in a position where they can help individual students. However, to be truly effective a teacher must have a great deal of information, part of which can only be provided by the guidance personnel. Furthermore, Anderson, Mawly, Miller, and Olson (1965) point out that several studies indicate that teachers have more influence with students than any other school personnel.

4. Parents seem to be the group most neglected by guidance directors when interpreting tests. Twenty-three percent of the directors reported interpreting tests to parents. This is a decrease from that data reported by Aarestad (1964) which indicated that 33.9 percent of the guidance personnel provided parents with some explanation of test scores. It is possible that the difference in percentage between the two studies may be explained by the term "explanation". There was no indication in Aarestad's study (1964) whether the explanations were an actual interpretation of test scores by the guidance counselor, or if the scores were merely sent home to the parents. If the scores were just sent home to the parents without an
interpretation by the director, this could be one reason for a higher percentage in Aarestad's study. It would seem to be important that parents have and understand data concerning test scores. As Anderson, Mowly, Miller, and Olson (1965) reported, there are many studies available which show that parents are most frequently cited by young people as having the greatest influence on their plans and choices.

5. The study seems to indicate that guidance directors in Class A schools did the most test interpreting to all groups. Guidance directors in Class B schools did the least amount of interpreting test scores. Perhaps this may be explained by the fact that many of the larger B schools have only one person in guidance, and often other jobs are also shifted to him.

6. It would appear that most guidance directors have very few expected uses of interpreted test results. The whole testing program is ineffective unless there is actual use made of the test results. Perhaps guidance directors need more knowledge of how test scores can be used by different individuals.

7. It appears that there are several schools in Montana that still use tests to group students by ability. This was reported as an expected use of test scores by 30 percent of the directors. While directors were required only to report what uses of test results they expected, in this case it seems possible that they would know if the interpreted test scores were actually being used for this purpose. This would indicate a slight decrease in the use of tests for ability grouping from 1963 when Aarestad (1964) reported that 39 percent of the guidance counselors stated test scores were used for this purpose.
8. Montana guidance departments appear to stress the need for higher education. This is especially true in the larger schools. It would appear that the students not planning advanced educations may receive somewhat less attention from the guidance directors.

9. The most expected use of test scores was to determine a student's strong and weak achievement areas. Furthermore, guidance directors expected teachers, students, and parents to use test scores for this purpose. This also given an indication that achievement test batteries are used more than any other type of test. This would be in agreement with data reported in the study by Aarestad (1964).

Recommendations

The following recommendations were generated out of the replies made by the guidance directors who participated in this study.

It is recommended that all administrators, teachers, students, and parents have test results interpreted to them. Directors could provide test interpretations to administrators and teachers during in-service training sessions. Not only could the directors provide these individuals with interpreted test scores but they could suggest various ways of using the information. Directors, in this way, could call attention to uses that the administrators or teachers might overlook. Test results to aid in curriculum planning is an example of a use that seems to be overlooked by some Montana schools. Guidance directors also should provide individual consultative services to administrators and teachers. The guidance director could help other staff members to broaden their understanding of
students and their scope of alternatives for helping them by providing an interpretation of test scores in relation to other data.

Guidance directors should also provide all students and their parents with test interpretations. Time could be saved by providing all students with a general interpretation of test scores in group sessions. Later, individual sessions could be arranged with students to further explain the test scores, to relate the test scores to other data, and to discuss various ways the students could use the information. Guidance directors should have at least one meeting per year with each student's parents. This would provide the time to interpret the child's test results and relate it to other pertinent information. It would also provide the parents with an opportunity to present any questions or problems that they wish to discuss.

It is recommended that guidance directors be provided with more knowledge concerning uses of test scores. This is important since it is often necessary for the guidance directors to point out to other individuals the various ways test results can be used. A guidance director would have a much more effective testing program if he had the knowledge of how test results could be used and if he knew how to implement the knowledge. Perhaps more of this type of information could be provided in college courses concerned with testing and guidance services.

It is recommended that schools provide their guidance directors with a reasonable work load. When a guidance director does not have enough time to provide all the necessary services, some must be eliminated. Often this is the service of test interpretation, especially in relation to
teachers and parents.
DIRECTIONS: I am interested only in the interpretation of test scores. If you do not interpret the scores given to various people involved in the question, leave the space blank. If you do give an interpretation, then state the use you expect will be made of this information by the people involved in the questions.

IF YOU INTERPRET TEST SCORES TO THE FOLLOWING PEOPLE, HOW DO YOU EXPECT THE INFORMATION TO BE USED?

1. Administrators

2. Teachers

3. Students

4. Parents

Please continue on the back if necessary.
APPENDIX B

Letter Explaining the Nature of the Study

Dear Director of Guidance:

Your help is needed. Presently, I am working on my Master of Education degree in guidance and counseling at Montana State University. My professional paper concerns interpretation of test scores to administrators, teachers, students, and parents. For this paper I need information concerning to whom you as guidance personnel interpret test scores and how you expect the different people to whom this interpretation is made to use this information. Your school has been selected randomly and it is important to the study that you return the completed inventory. Will you please take a few minutes of your time to complete the inventory and return it in the enclosed self-addressed, stamped envelope?

I am interested only in the interpretation of test scores. If you do not interpret the scores given to various people involved in the question, leave the space blank. If you do give an interpretation, then state the use you expect will be made of this information by the people involved in the question.

Sincerely,

Marjorie Monson
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