A COMPARATIVE ANALYSIS OF THE METHODS AND FACTORS EMPLOYED IN GRADING STUDENTS IN PHYSICAL EDUCATION, TYPING, AND ENGLISH IN FIFTY CLASS "A" HIGH SCHOOLS OF TEXAS FOR THE YEAR 1949-50

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CHAPTER I

INTRODUCTION

The Problem

The problem of this study was to make a comparative analysis of the methods and factors employed in grading students in physical education, typing, and English in fifty Class "A" high schools of Texas for the school year of 1949-50. This analysis was of two parts. One phase gave consideration to various methods used in grading pupils. The other considered factors that go to make the whole of student grades and the percentage attached to each factor. The two phases were so interrelated that it was felt that this study would not be complete without the inclusion of both.

Delimitation of the Problem

The problem was limited to the factors and methods employed in grading students in physical education, typing and English as practiced by teachers in fifty class "A" high schools of Texas in the year 1949-50.

Purposes of this Investigation

The purposes of this investigation were: (1) to determine the methods and factors employed in the computation of

student grades in physical education; (2) to determine the methods and factors employed in the computation of student grades in typing; (3) to determine the methods and factors employed in the computation of student grades in English; and (4) to make a comparative analysis of the methods and factors employed in grading students in an academic subject represented by English, and in a subject involving motor skills, represented by typing and physical education.

Method of Procedure and Treatment of Data

The first step in attacking the problem was to make a survey of the literature pertinent to the problem.[1]

The questionnaire was selected as the device for the collection of data, because, as will be indicated presently, this was believed to be the best means of obtaining information necessary for this study. The questionnaire was divided into two parts.[2] Part I gave consideration to methods in grading students and Part II was concerned with the factors involved in arriving at student's grades. There were two columns for the methods: one, for the method used; the other, for the method preferred. In Part II there were five columns: (1) Used, (2) Preferred, (3) Yes, (4) No (separate grades), and (5) Weight or Percentage.

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[1] Infra, pp. 7-28.

[2] For sample of questionnaire form see Appendix, p. 72.

The following criteria were formulated for the construction of the questionnaire: (1) Each item should be relevant to the study; (2) each item should contribute to the total picture; and (3) the respondents should be given an opportunity to add items that fit his particular situation; and respondents were selected by taking every third class "A" high school in the directory until ninety schools had been selected. The questionnaires were mailed to respondents, and the data received were tabulated on a data sheet, included in the appendix.

Selection of the Instrument for the Collection of Data

The investigator realized that the present study required information from wide sources in Texas. A sound instrument for the gathering of data was desired, and, to select the instrument, the writings of experts in the research field were studied.

Good and his associates recognize the questionnaire as an important instrument in the normative-survey method of research to gather information from widely scattered sources.[3] Koos reports that out of 581 printed studies, representing researches of all kinds, the questionnaire was used in practically one-fourth of them.[4] On the basis

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[3] C. V. Good, A. S. Barr, and D. E. Scates, The Methodology of Educational Research, p. 325.

[4] L. V. Koos, The Questionnaire in Education, pp. 6-13.

of these citations from experts in the check-list field, the questionnaire was selected as the instrument for the collection of data for the present research investigation.

However, authorities recognize that the questionnaire is not a perfect instrument for collecting data. For example, its reliability is affected by: (1) the inclusion of statements that are not clear to the respondents; (2) the inclusion of statements of a personal or professional nature to which the recipient hesitates to respond or tends to give inaccurate responses; (3) the inclusion of irrelevant items which increase the lengthiness of the questionnaire; (4) the lack of clarity in the directions for filling out the questionnaire; and (5) the lack of form in the construction of the questionnaire. Accordingly, procedures were taken to eliminate these weaknesses in the questionnaire in order that the reliability of the instrument would be increased.

The items for the questionnaire were analyzed carefully and organized so that related items were associated in order to promote continuity of thought on the part of the respondents when answering the questionnaire. The material was organized into inclusive check-lists which permitted the respondent to check a list of items objectively, and space was left in each check list for the respondent to write additional items if necessary.

An introductory letter to accompany the questionnaire was constructed, and, in it, directions for filling out the questionnaire were given. The respondent was assured that the identity of the educational institution of which he was a teacher would be kept in strict confidence in the report of the research study. Furthermore, he was promised the completed results of the study if he signified that he desired them. A stamped envelope bearing a return address was enclosed with each letter and questionnaire.

The questionnaire was constructed and submitted to experts at the North Texas State College for evaluation. Next, the questionnaire was revised to incorporate the suggestions of the experts. Then it was submitted for evaluation to the members of a graduate class in research at North Texas State College, most of whom were teachers with experience. Finally, the suggestions from this group, also, were incorporated in the questionnaire.

Significance of the Study

For a number of years teachers, administrators, parents and experts have realized a definite need for the revision and improvement of the methods employed in evaluating student progress and growth. One of the chief functions of the school is to produce desirable changes in the behavior of the children who comprise its membership. Thus, to effect this result, the school must have

the help of the parent. To obtain parent cooperation the teacher must be able to give the parent clear and concise information concerning the progress of the student, not only in scholastic requirements but as an individual as well. In order to inform the parent as completely as possible of the school's evaluation of the development of the child the best method of grading should be employed.

As will be shown in the succeeding pages of this investigation there are, at the present time, conflicting views regarding the various methods of grading. It will be noted also that many progressive schools are trying experimental methods of grading the student as an individual as well as in scholastic achievement. The fact that there is such a conflict of ideas pertaining to types of grading denotes a definite need for more material to be written on the subject.

This investigation may serve to aid in the selection of the most appropriate means of measuring student progress in two subjects involving motor skills, typing and physical education, and in the academic subject, English. Therefore, the conclusion was reached that a comparative analysis of the methods and factors used and preferred in grading students in physical education, typing, and English would be of vital significance to the teacher, administrator, pupil, and parent.

CHAPTER II

HISTORICAL BACKGROUND

General Background

It is not the purpose of this investigation to delve into a long and detailed historical background of the systems and methods used to grade, evaluate or report the progress of students through the ages. However, mention should be made of the fact that methods of grading are not new to education or even to civilization since measurements of one kind or another have always played an important part in human history. Ross notes that the use of various types of testing devices was found among the earliest records of the Bible.[1] These have no direct reference to education as we know it today, but they do show the historical development of grading, measuring, and testing devices toward which this chapter will be directed.

Early methods of grading, testing, and measuring were not refined and they do not compare favorably with some of the methods in use today. However, they served their purpose and through the years have been revised many times always with an eye toward improvement. The process of improving the grading system has been slow, gradual,

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[1] C. C. Ross, Measurement in Today's Schools, p. 32.

and experimental, and, like all forms of progress, has met some opposition and much confusion.

However, superintendents and teachers gradually realized the need for more reliable means of measuring the school child's progress and growth. As a result many experiments were made. In this connection, more than a third of a century ago, Thorndike pointed out:

> The methods of grading which have been accepted unthinkingly in the past are being required to justify themselves. The actual changes wrought in boys and girls by this or that method of grading are being tested by experiment in the same spirit of zeal and care for the truth that animates the man of science.[2]

One of the oldest methods of grading is the percentage type. This method was desired by many parents because they felt that they could understand the significance of a grade in figures. That this method then measured only the academic achievement and did not consider other factors equally important was not observed by the teachers and parents at that time. However, in recent years the injustice and inaccuracy of this method has been attacked by educators, experts, parents, teachers and administrators. As an example Hildreth has made the following criticism:

> Who can say what the difference between a grade of 79 and a grade of 81 represented? What is the meaning of a passing mark of 70 and all the graduations above that mark which the teacher allots

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[2]Edward L. Thorndike, "For Recording the Progress of the Whole Child," Education, XI (June, 1912), 234-239.

> to the pupils? Marks expressed in terms of figures can never give more than a rough estimate of the ranks of the pupils, no matter how refined they may be.[3]

The percentage method of grading has been abandoned in many schools because, in the grading and evaluating of progress, teachers often allowed factors other than pupil effort, achievement, and ability to influence the mark given. The parent's status in the community, the like or dislike of the child, and various other conditions applied too much influence on the child's final mark.

The letter method of grading pupil achievement was adopted by many schools in an attempt to reduce injustice and inaccuracy. The letters A, B, C, D, and F were most generally used in this method. The letter A represented the highest grade, and D represented the lowest passing grade. Often the letter F was used to indicate that the student was not passing in certain subjects.

In some schools a child's grades depend upon how much subject-matter requirement he completes and how much supplementary work he does. As an example, for a grade of A the child is required to master certain fundamental requirements in a given subject, and he is also expected to complete certain defined supplementary work. This system of marking places the grade as the goal of the student; that is the thing he is inspired to work for

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[3]Gertrude H. Hildreth, Psychological Service for School Problems, p. 203.

rather than his personal satisfaction of doing a task well. When the grade is sent to the parent, indication is given concerning the quantity of work which the student has completed. The parent, however, has no way of knowing the quality of work which was done in order to receive such a mark.

The subjectivity which was present in the percentage system of grading pupil achievement was at once evidenced in the letter system. In the use of both methods each child was compared with the highest ranking child in the class. It is assumed that the child, when he fails to achieve the maximum grade, is either obstinate or lazy; because in these systems of marking each child is assumed to be capable of making 100 per cent or A. These systems do not take into consideration individual differences. They do not help parents to understand that all children are not equal in intelligence, and that all are not capable of doing the same quality and quantity of work. In addition, these two systems compare the child with the group rather than with his own previous record. To the child of superior ability, a high grade is obtained with very little effort generally. To the pupil of low ability, his failing marks are very discouraging. Sometimes the result is a development of an inferiority complex because the child is given little or no credit for his efforts. Rogers

condemned such traditional methods as unscientific, misleading, and undesirable.[4] And Russel reflected his point of view in part:

> In spite of the fact that there is widespread dissatisfaction with the present methods, there is nevertheless just as widespread appreciation of the need for some grading system that will more accurately measure the progress of the student.[5]

Current Methods and Ideas of Grading

Since, as Russel states, there appears to be dissatisfaction with the present methods of grading, and the need for a more comprehensive system of grading which will give a keener vision of the development of the student, it will be well to examine critically the various schools of thought as viewed and portrayed by the experts. So much for the past; what, then, are the concepts of evaluation and measuring today?

First, by way of defining evaluation and grading, Simms points out that to evaluate is to ascertain the value of, to reckon the worthwhileness of, the goodness or badness of some process or thing.[6] This definition appears to the investigator to define quite clearly the broad aspect of evaluation and measurement as it pertains to this study.

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[4] F. R. Rogers, "The Case for the Elimination of the Traditional Card," Education, XXXII (December, 1933), 234-9.

[5] Charles Russel, Rating School Pupils, p. 38.

[6] V. M. Simms, "Educational Measurement and Evaluation," Journal of Educational Research, XXXIX (September, 1944), 18.

Formal grading is supposed to record in symbols the teacher's estimation of an exact measurement of the school child's progress in school activities, and knowledge of subject-matter. The methods of grading and the factors considered indicate the growth of each student in comparison with some accepted pattern or some standard of measurement. In some instances it was a comparison of the pupil with the average pupil in the group. Sometimes it was a comparison of his knowledge of certain subject-matter with the goals set up by the state for his particular grade level. In other instances it was a comparison of the student's scholastic achievement with the average for his chronological age group. Occasionally it was a comparison of his present achievements with his former accomplishments.

Modern day progressive educators have come to the conclusion that the methods of grading and the factors considered in grading, as they have been employed in most schools, are not performing the functions and aims of the grading system. It is their belief that learning should be realized through the child's desire and as a fulfillment of his needs. These same experts and educators suggest that there are not accurate methods of grading a child's honesty, effort, conduct, cooperation, and other social characteristics. Reinoehl and Ayer state their opinions concerning the inability of grading the growth of desirable traits in a student:

> It is incongruous to grade students on such attributes as honesty and initiative. Practical accuracy in grading should be possible in a subject like spelling, but in socialized materials a term mark may be a mere guess. We accept such statements as "Blessed are the pure in heart," but who would have the temerity to indicate 75 per cent pure?[7]

In agreement with this current trend of reasoning Leonard and her collaborators expressed the opinions of many modern educators regarding the use of formal grading in the following statements:

> In order to give a clear and well rounded evaluation to the child's home, the old type of report card with a percentage or a numerical or letter grade for each subject of study is entirely insufficient. It fails to analyze the child's difficulties in the field considered, and it omits many extremely important aspects in his adjustment.[8]

As far as school administration is concerned, marks or grades generally afford the basis for determination of promotions, scholastic honors, and school classification. Marks provide, on the other hand, a working basis for group distinction by the classroom teacher. Marks should give accurate information concerning the amount and kind of work done. Green, Jorgensen, and Gerberich suggest, in this regard:

> The real severity of this burden is better appreciated when one recalls the implication of the experimental evidence of teacher's marks, and then, in the face of these disturbing facts, realizes

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[7]C. M. Reinoehl and F. C. Ayer, Classroom Administration and Pupil Adjustment, p. 290.

[8]Edith Leonard, Lillian Miles, and Van der Kar, The Child at Home and School, p. 420.

> the seriousness with which these marks are taken by the pupil, by the parent, and even by the school itself.[9]

Thus, it is apparent that the problem of grading pupils, assigning marks, and reporting progress to the parents looms large in the school's influence on the growth and development of the child, and is a delicate link in the relation of the school and the home. Indeed, according to Brueckner:

> The behavior of the individual is conditioned both by the consciously directed learning experiences provided by the schools and by the almost wholly undirected, or uncoordinated influences of such informal educative agencies of the community as the church, recreational facilities, civil authorities, business, the home, the press, and many others.[10]

And, as the realization of the importance of teacher-pupil-parent-society relationships has increased, the emphasis on satisfactory methods of grading and measuring has been enlarged proportionately.

Currently most educators agree that the traditional type of school grades and marks, including the percentage and letter methods of reporting student progress, does not perform its assumed functions.[11]

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[9] H. A. Green, A. N. Jorgensen, and J. R. Gerberich, Measurement and Evaluation in the Elementary School, p. 592.

[10] Leo J. Brueckner and others, The Changing Elementary School, p. 321.

[11] W. L. Wrinkle, "The Story of a Secondary School Experiment in Marking and Reporting," Educational Administration and Supervision, XXIII (October, 1937), 482.

An analysis of these functions reveals that they can be classified in three categories: (1) administrative, (2) motivating and disciplinary, and (3) informational. For (1) the administrative functions, marks indicate whether a student had passed or failed. For (2) motivating and disciplinary functions, marks were used to stimulate students. Those who appeared to work hard and learn much were rewarded with high marks. Other pupils who seemed to be uninterested and indifferent were punished with low marks. For (3) informational functions, marks were used to inform students and parents how the teacher personally felt about the child's achievement, progress, or failure in school work.

Since the practice of passing or failing pupils is generally conceded to be an adequate basis for grade placement, school marks have failed to perform their assumed administrative function. Because it is generally accepted that the pupil should realize value in what he is doing and should not be prompted to action through fear of penalty or the desire for reward, school marks have not successfully performed their assumed motivating and disciplinary function. Since time and experience have proved the inadequacy of traditional types or methods of grading for conveying information of school progress to the parents, it is to be concluded that this system has failed to provide an intelligent solution to the problem. As

an illustration of the issues to be avoided and the items to be included in reporting a student's grade Wrinkle declares:

> The chief aim in grading is to avoid invidious comparisons, harmful misunderstandings, and useless work on the part of both teachers and parents, and to report only items of information which will serve a constructive educational and social purpose.[12]

He is also of the opinion that "A blank sheet of paper in the hands of an intelligent teacher is perhaps the best form for use in reporting."[13]

Many problems arise when trying to find the most helpful way of measuring the child's progress and accomplishments. It is not enough to grade only the behavior of the child. One must consider what factors produced that behavior. It is not enough for the teacher to report that a child is failing in some subject. If the report shows that the child is not achieving what he should, what can the parent do? His recourse generally is to scold or force the child to spend more time on the subject at home. What benefits are derived, if the main factor responsible for the low achievement was that the child saw no value in what he was studying? An analysis of these questions and their answers leads to the conclusion that a good method of grading and a careful consideration of all factors is of great consequence in the growth and progress of the child.

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[12] Ibid., p. 483. [13] Ibid., p. 484.

In 1932 Worlton made a report on his analysis of methods of grading in 515 city school systems.[14] He found that 46.03 per cent of the schools used the letter ratings (A, B, C, D, and E); 24.60 per cent used descriptive terms such as "excellent," "good," "poor," and "failure"; 15.08 per cent used numbers such as 100, 90, 80, and 70; 3.18 per cent used descriptive expressions such as "average," "above average," and "below average." With the advent of more modern educational philosophy and the accompanying scientific movement it soon became apparent that radical improvements in grading and reporting pupil progress were imperative. Educators, school administrators, and classroom teachers united their efforts to bring about this end. Green, Jorgensen, and Gerberich offer the following examples as foundation for a program for the elimination of unsatisfactory features of the traditional method of grading:

1. Discard the practice of marking the pupil in percentages.
2. Each mark assigned to a pupil should be a symbol designed to indicate his power to do.
3. Each teacher should give objective examinations or quizzes frequently throughout the term, and the scores from these tests should afford the major basis for his marks.
4. Require teachers to prepare in advance for each six weeks' period carefully worded statements of the objectives of each subject for that period.

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[14] J. T. Worlton, "Shall We Eliminate the Comparative Grading System from the Report Card?" Elementary School Journal, XXXIII (November, 1932), 176-177.

5. Work prepared for daily assignment should be treated as a requirement of the course, but marks assigned should be determined by numerous brief objective quizzes or tests over the work assigned.
6. Notebook and laboratory work should be treated as a requirement of the course, and the credit should be deducted or withheld for work which is unsatisfactory or incomplete.
7. Assign marks on accomplishment or performance rather than on indefinite subjective factors such as effort, attitude, ability, etc.
8. Final marks summarizing all of the quiz and test scores for the course can be obtained quite readily by assigning point values to each letter mark, computing the actual average for each pupil and then assigning the final class marks on the basis of these averages.[15]

The current educational trend is that the school views the student as a complete individual, and attempts to provide an environment that will meet his needs. The problem of how the school can provide an environment that will meet the needs of the student then measure and evaluate his progress and growth, can be met only after the school becomes concerned with the growth and development of the whole child.

To show that such a line of reasoning is becoming more prevalent today it is noted that Skaife of West Springfield High School, West Springfield, Massachusetts, suggested that if education is concerned with the growth and development of the whole child, grades and marks should contain information on the whole child and not merely on

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[15]Green, et al., op. cit., pp. 592-596.

his scholastic achievements.[16] Many factors should be considered other than his scholastic achievement. He added that each pupil's progress should be determined by comparison with his own previous record and not with the record of his classmates.

In agreement with this viewpoint, Wrinkle suggests that a better understanding of the child as a whole personality is greatly responsible for the movement to determine new methods, and consider new factors in grading or evaluating the student's progress. He made the following statements regarding this problem:

> If I fail Johnny, what has he failed: If I pass Mary, what has she passed? Is there really such a thing as an eight-grade course of study? Is a knowledge of geography dictated by the course of study or the arithmetic scales prescribed for grade seven more important than Mary's health, unworried sleep, self-respect, and self-confidence? Is it my job as seventh grade teacher to make the children in my group all alike--standardized products--whether they want to be standardized or not? Why must I periodically examine, measure, compare, grade, and write numbers on pieces of paper. Just what is the purpose of marking and grading?[17]

Also he suggests that the aim in measuring, observing, and recording information about the abilities, achievements, interests, habits, and attitudes of students is to secure as accurate and comprehensive cumulative reports as possible so that both teachers and pupils may be most "advantageously

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[16]Robert A. Skaife, "For Recording the Progress of the Whole Child," Nation's Schools, XXXIII (June, 1944),44.

[17]Wrinkle, op. cit., p. 482.

guided in their cooperative task of promoting and seeking appropriate self-education."[18]

In agreement with this aim, Symonds notes that there is a widespread tendency today for teachers to consider many factors besides academic achievement in grading students' progress. These tendencies verify the change of emphasis from the development of subject-matter to the development of the child as a whole.[19] He stated his point of view clearly when he said:

> Many factors about John are much more important than an "average of B in arithmetic." There is the fact that he stayed after school to help the teacher clean out some cupboards. There is the fact that he is the best baseball pitcher in his class. . . . There is the fact that he got into a fight to avenge a smaller boy who was being taunted about his nationality, the same as John's. There is the fact that he enjoyed a victrola rendition of the Pilgrim's Chorus intensely, and was surprized to find that he liked music so well.[20]

Thus, from the preceeding opinions expressed by well-known educational authorities, it is noted that a great many educators and experts are in agreement as to the importance of viewing the student as a whole. Assuming that the student is regarded as a whole personality, certainly many factors must be considered in grading or evaluating his growth other than his academic achievement. As stated

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[18] Ibid., p. 486.

[19] P. M. Symonds, "Marks and Examinations as Factors in Personality Adjustment," National Elementary Principal, XV (July, 1936), 355-363.

[20] Ibid.

previously, improving the grading system has been slow. However, as the realization grew of a need for more reliable means of measuring individual growth than was being used, many experimental ways of grading was tried. Among the various experiments in reporting student progress the following six methods were set up and used most extensively: (1) rank, (2) percentile, (3) double marking, (4) grade scores, (5) profiles, and (6) descriptive words.[21] These methods are described in greater detail below.

Experimental Methods Used in Modern Day Grading

Rank method of reporting.--As an experiment, some schools have used the rank method of reporting or grading students. This method shows how the pupil stands in relation to other children in his group. The child who receives the mark of 1 is informed that he made the highest grade in the group, while the child who made 25 knows his grade is the lowest. Attention has been called to the injustice of teachers' ranks in groups which are not properly classified and not homogeneous as regards capacity and level of achievement. Grade marks which indicate the child's school progress in comparison with that of other pupils

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[21] K. K. Davis, "A Comparative Study of Trends in Reporting Pupils' School Progress as Evidenced by Recommendations of Educators and as Described by Fifty-Six Adults Engaged in the Teaching Profession" (Unpublished Master's Thesis, Dept. of Education, North Texas State College, 1946), pp. 18-20.

in the room do not interpret to the parents the use that the child has been making of his time and ability. They do indicate, however, certain classification problems with which the school is confronted.

The percentile method.--In the percentile method of grading, the class is generally divided into three groups. Fifty per cent of the children are considered to be average; twenty-five per cent are considered to be below average; and the remaining twenty-five per cent are considered above average. In this system of grading one-fourth of each class can be retained every year. If this should happen, in a period of several years the class would soon be composed of children outside their social and chronological age groups. The slow pupils who had been retained would be forced to compete with the superior children who had been promoted. It is easy to see that adjustments would be impossible.

The percentile and the rank methods of grading school progress are very similar. They are both based upon the comparison of the child to other children in his group. The percentile score defines 100 per cent as the highest mark and 1 per cent as the lowest mark. The objection to this system is that it is very discouraging to a child of low intelligence to receive always a mark in the lower bracket. He receives no reward for making an effort and

he receives nothing but discouragement when he compares his grade with that of a superior child.

The double marking method.--In this type of grading, each mark consists of two symbols. The first indicates absolute achievement, while the second indicates achievement relative to capacity. For instance, the letters E, G, A, P, and F indicate that the pupil's subject-matter was excellent, good, average, poor, or failing. The figures 1, 2, 3, 4, and 5 in combination with the letters indicate the teacher's estimate of the amount of effort which the child put forth in each of the subjects. As an example, a grade of F-5 would mean that the child was failing, in comparison with the work that the other children were doing in the group, and that he seemed to be putting forth little or no effort.

The grade score method.--This method of grading indicates the child's ability in each subject-matter field in terms of grade scores interpreted in descriptive words. As an example the following interpretion is given:

Grade Score Mark	Interpretation
7.0 and above	Very superior
6.5 to 6.9	Superior
5.5 to 6.4	Satisfactory
5.0 to 5.4	Fair
Below 5.0	Unsatisfactory

The profile method.--This method tried to do away with the use of figures and letters in grading. One point was

given for low, two points for medium, and three points for high in estimating the final mark. This method still embodied the same type of subjectivity that characterized those methods using figures or letters.

Descriptive method.--In an effort to overcome the inaccuracy of both the percentage and the letter methods of grading, some schools have used such descriptive terms as "excellent," "good," "average," "poor," and "failure." In some instances the initials E, G, A, P, and F have been used. Sometimes they were given the plus or minus sign in order to add a little encouragement. Occasionally, four marks have been used in grading subject-matter achievements and the habits and attitudes of the child. The following explanation was given the marks:

> E means Excellent.
> I means Improving.
> Black check means Can Improve.
> Red check means Unsatisfactory.

In some schools the mark given included information on personality traits, habits, and attitudes. In addition, such factors as reading habits, interest, understanding, and reads orally were considered. The following is a marking code:

S	Satisfactory progress
U	Unsatisfactory progress
SI.	Satisfactory, improving
SP.	Satisfactory, declining
UI.	Unsatisfactory, improving
UP.	Unsatisfactory, declining

None of these experimental methods have completely solved the problem of measuring the student's progress satisfactorily. However, each new grading idea showed improvement over the traditional (*i. e.*, percentage and letter) methods of grading. Thus, it can be seen that educators are striving for a better all around system to measure student achievement.

Related Studies

In making a survey of previous studies few were found that were related to the present investigation.

One investigation made by Davis, however, was closely related to the present study. He was interested in evaluating the various methods of reporting pupil progress to parents and the discovery of trends in educational literature and school practice, and the purposes of his study were to determine the recommendations of certain educators in regard to the problem and compare these results with the current trends according to fifty-six classroom teachers. He employed five procedures in developing the study: (1) examination of printed material, (2) formulation of questionnaire, (3) analyses of information received from questionnaires, (4) comparison of the recommendations made by educators, and the prevailing practices described in the questionnaire, and (5) formulating summary and conclusions.

In the second chapter of his investigation Davis gave the development of tests and measurements from early times to the present. He listed the purposes of report cards and brought out the fact that the correct evaluation of pupil progress played a large part in the development of cooperation between the school and the parent. In addition, the investigator noted that the traditional reports had been modified in recent years.

In discussing the need for new type methods of reporting school progress to parents, Davis emphasized the fact that since the teaching profession now desires to recognize and develop the individual differences of pupils instead of teaching students collectively the traditional report card should be changed to an informal grading system. The following conclusions pertinent to this investigation were drawn by Davis:

1. The dominant practice among the fifty-six teachers in reporting the pupil's academic progress is by means of letters, such as A, B, C, D, and F. This method is not in agreement with recommendations of educators who suggest that such letters do not perform their assumed functions.
2. Some schools under consideration in this study used A, B, C, D, and F system of reporting the pupil's individual adjustment and social characteristics.

This method is in opposition to the concepts of educators who say that there is no way of measuring a child's courtesy, self-control, initiative, and other social developments and characteristics.

3. Several schools are beginning to use a combination of methods for reporting the pupil's progress. Such a medium is favored by the educators who declare that the designation of grades, solely by means of the alphabet or by figures, is in direct opposition to the accepted theory that learning takes place through the child's desire and in fulfillment of his needs. The use of a combination of methods also helps to take care of individual differences among parents as well as pupils.

4. The most frequently mentioned desired improvement listed by the participants was the use of the friendly letter as a means of bringing about a closer relationship and a deeper understanding between the home and the school. Such an improvement meets the approval of the educators who recommend that friendly letters often gain cooperation of the home and often serve as a bond that ties parents and teachers together.

5. The present trend of sending reports to parents each six weeks is not in agreement with the recommendations of educators who say that reports should be sent only when there is a need for sending them.

6. There is no definite trend toward the adoption of a standard form of reporting.[22]

Chapter Summary

A critical analysis of available data indicates that percentage and letter methods of grading and evaluating were the oldest types in use and are referred to as the traditional methods. The percentage method was used first in grading student growth, but its inaccuracy, subjectivity, and accompanying unfairness caused its abandonment in many schools. Marking by letters supplanted the percentage method of grading, but little benefit was derived from the change because the same undesirable features were present. Neither of these traditional methods performed their assumed or proper functions.

When educators, experts, teachers, and admimistrators realized that the traditional methods were not in harmony with modern concepts of education, revision was attempted. The following six methods were used in experimentation rather extensively: (1) rank, (2) percentile, (3) double marking, (4) grade scores, (5) profiles, and (6) descriptive terms. None of these solved the problem of grading or evaluating satisfactorily, although, according to Davis,

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[22] Ibid., pp. 68-72.

each was an improvement over the traditional method. The revision in methods of grading has followed the progressive movement in education, and is an integral part of the concept that the child is the center of the curriculum and that the school program should be of, by, and for him.

The emphasis on individual differences and the development of the whole child resulted in much thought and experimentation with factors which should be considered in ascertaining the mark of the student. Many educators have agreed that a student's grade should be evaluated according to his previous record rather than compared with the student with the highest, the average, or the lowest grade in his class. It is the conclusion of most experts that many factors should be taken into consideration, other than academic achievement, while measuring student growth.

The data also revealed that as late as 1932, according to one authority, 46.03 per cent of 515 city schools were still using the letter method; 24.60 per cent were using descriptive terms, such as "excellent," "good," "poor," and "failure"; 15.08 per cent were using numbers such as 100, 90, 80, and 70; and 3.18 per cent were using descriptive expressions such as "average," "above average," and "below average."

Thus, according to an analysis of the material available, there is no one method of grading in current use. It is an obvious fact, however, that the traditional methods, letter and percentage, are still widely employed in schools today, even though it is known that they are outmoded and unfair.

Guessing, on the part of the teacher, is still used as one method of grading; but is very unsatisfactory, because, as revealed in the data set forth in this chapter, outside influences often affect the actual grade. Grades are taken seriously by both the student and the parent, as well as the school; therefore they should be as accurate as possible.

The process of revising the grading system has been slow, but the fact that it is being improved gradually by experimental means is generally conceded by the experts in the educational field.

CHAPTER III

METHODS EMPLOYED AND PREFERRED IN GRADING STUDENTS AS EVIDENCED IN RETURNS FROM QUESTIONNAIRES

Source of Data

In order to determine a sampling of the methods employed in grading students in the two motor skill subjects, typing and physical education, and the academic subject, English, a questionnaire was formulated and sent to ninety class A high schools in Texas in the year 1949-50. These schools, as noted previously, were chosen by selecting every third school listed in the directory of schools published by the State Department of Education. Three questionnaires were sent to each of the ninety schools; one to the physical education instructor, one to the typing instructor, and one to the English instructor. From these questionnaires, the following returns were received: sixty-three from typing instructors, fifty-five from physical education instructors, and forty-nine from English instructors. The typing returns had the highest percentage of returns with 70.0 per cent, followed by physical education with 61.0 per cent, and English with 54.0 per cent.

The investigator realizes the percentage of returns are somewhat higher than the average percentage of answers from questionnaires and feels that this adds to the validity of the results.

Methods Employed

The questionnaires mailed to the instructors in the three fields of the teaching profession pertained to the following items: (1) methods employed in grading students, (2) methods preferred by the teachers in grading students, and (3) a column for other methods that might have been in use in the school system. Methods of testing and measuring, as was pointed out earlier, are not new to education. Indeed, Davis declared they are very old:

> Grading and evaluating are not new phases of education or even of civilization. Tests of some kind or another have always played a prominent role in human history, and the use of grading and various testing devices were found among the earliest records in the Bible. These have no direct reference to education, but they do show the historical development of measurement and testing.[1]

Ancient or not, current methods of measuring student achievement are not considered perfect by experts; still, they are used extensively in high schools in Texas.

Data in Table 1 indicate that the letter method of grading (A, B, C, D, and F) is the most widely used in the

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[1]K. K. Davis, "A Comparative Study of Trends in Reporting Pupils' School Progress as Evidenced by Recommendations of Educators and as Described by Fifty-Six Adults Engaged in the Teaching Profession" (Unpublished Master's Thesis, Dept. of Education, North Texas State College, 1946), pp. 18-20.

schools returning questionnaires. This method was reported used by forty-four typing instructors, forty English instructors, and thirty-seven physical education instructors.

TABLE 1

METHODS EMPLOYED IN GRADING STUDENTS IN CLASS "A" HIGH SCHOOLS IN TEXAS IN THE YEAR 1949-50 AS REVEALED BY THE QUESTIONNAIRES

Method Used	English	Typing	Physical Education
A, B, C, D, and F	40	44	37
Percentage	4	6	5
Numerical	8	22	13
Excellent, Very Good, etc.	2	0	3
Satisfactory and Unsatisfactory	6	0	4
Others	0	0	0

Ranking second as the most widely used method is the numerical type of grading (1, 2, 3, 4, and 5), and it was reported used by twenty-two typing instructors, thirteen physical education instructors, and eight English instructors. In third place, in both typing and physical

education, is the percentage method, 100, 90, 80, and 70, with six reported by the typing instructors; and five, by the physical education teachers. The percentage method ranked fourth with English instructors, who reported four. Ranking fourth in physical education, and holding third place in English is the "satisfactory and unsatisfactory" method of grading. The "excellent," "very good," etc. method of reporting student progress came in fifth place in both English and physical education.

As revealed by the returns of the questionnaires, the typing instructors employed only three methods of grading: (1) the letter method (A, B, C, D, and F), (2) the percentage method (100, 90, 80, and 70), and (3) the numerical method (1, 2, 3, 4, and 5). It is of significance to this investigation that no other methods than these noted in Table 1 were listed by the respondents. The "others" column of the questionnaire showed no returns.

The data in Table 1 reveals several patterns. Notable among these is the fact that the A, B, C, D, and F method was the most extensively employed in all three subjects; English, typing, and physical education.[2] The numerical

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[2]It is not the aim of this status study to prove whether or not this is the method which should or should not be the most widely used by teachers; however, the fact that this method was the one used most extensively by all three departments returning the questionnaires adds to the validity of the returns.

method, being second, ranking as the most employed in all three departments, portrays a second pattern. The descriptive terms "excellent" and "very good," ranking fifth in all three subjects, reveal a third design. The "others" column showed no returns in all three departments and therefore, represents a fourth pattern. Thus, the listed patterns show the consistency and the validity of the returns.

As to the variances of the three departments, there is one of significance to this study. English and physical education instructors employed all five methods in their schools, but the typing instructors revealed that they only employed three of the five methods of grading listed in the questionnaires.

The three departments of English, typing, and physical education compare very favorably with each other as to which method they rank first, second, third, fourth, and fifth in employment. They also compare similarly in the "others" column.

In a final analysis, these three departments differ only in the number of methods in use: English and physical education use all five, but typing uses only three methods.

Methods Preferred

Table 2 contains data on the methods that were preferred by the instructors answering the questionnaire.

TABLE 2

METHODS PREFERRED IN GRADING STUDENTS IN CLASS "A" HIGH SCHOOLS IN TEXAS IN THE YEAR 1949-50 AS REVEALED BY THE QUESTIONNAIRES

Methods Preferred	English	Typing	Physical Education
A, B, C, D, and F	12	16	14
Percentage	3	2	1
Numerical	18	32	27
Excellent, Very Good, etc.	4	1	3
Satisfactory and Unsatisfactory	7	7	12
Others	1	2	0

Data in the preceding table indicate that the type of grading preferred by the greatest number of instructors teaching in the field was numerical. It was the method the greatest number of teachers preferred not only in one department, but in all three departments answering the questionnaires. In the report, eighteen instructors preferred the numerical method in the English department, thirty-two favored it in the typing department, and twenty-seven voted for it above all other methods in the physical

education department. The letter method, A, B, C, D, and F, ranked second in the preference of instructors in all three of the named departments. The returns show it to be preferred secondly by twelve English instructors, sixteen typing teachers, and fourteen physical education instructors. The use of the method "satisfactory" and "unsatisfactory" ranked third, showing that it was preferred by seven English, seven typing, and twelve physical education instructors. In the fourth-ranking place was the "excellent" and "very good" method. It was preferred by seven English instructors, one typing teacher, and three physical education instructors. One English teacher stated other methods were preferred but did not designate method desired. Two typing instructors showed preference for other methods of grading but they, also, did not list them.

The data tabulated in Table 2 also reveal patterns. First in the preference of the instructors in all three departments is the numerical method of grading. Thirty-two typing instructors, twenty-seven physical education teachers, and eighteen English instructors preferred this method. Second in all three of the departments was the A, B, C, D, and F method of grading, receiving sixteen typing votes, fourteen physical education votes, and twelve English votes. The third preferred method was that of the

"satisfactory" and "unsatisfactory" type of grading with twelve physical education, seven typing, and seven English votes.

Ranking fourth in preference of the instructors is the "excellent" and "very good" method. Four English, three physical education, and one typing instructor reported that they preferred this arrangement for grading students. The percentage method was fifth-ranking in preference by the instructors with three English, two typing, and one physical education instructors voting for it. The "bthers" column was checked by two typing teachers, and one English instructor, but they did not list their preferred method. In the preferred methods, as was the condition in the employed methods tabulated in Table 1, the three departments compare favorably with respect to their first, second, third, fourth, and fifth preferences in methods of grading.

Chapter Summary

A summary of the data presented in the questionnaires sent to ninety class A high schools of Texas in the school year 1949-50 indicates the following existing conditions in methods used and preferred in grading students:

1. All the schools sending returns employed one of the listed methods of grading.

2. The letter method (A, B, C, D, and F) was the most widely used in all three departments; English, typing, and physical education. The second most extensively employed method of grading in all three departments was the numerical type.
3. All three departments rank one, two, and three on the first three methods as to their usage.
4. Three instructors revealed a preference for some method other than the ones placed in the questionnaires, but they did not designate the preferred methods.
5. The percentage of returns from the questionnaires was above the average according to statistics. The percentage of returns was: typing, 70.0 per cent; physical education, 61.0 per cent; and English, 54.0 per cent.
6. There is a discrepancy between the methods employed and those preferred by the same instructors. The numerical method was the preferred method of grading by all three departments, but the letter method was employed most in those same three departments.

CHAPTER IV

FACTORS EMPLOYED AND PREFERRED IN THE CONSIDERATION OF GRADING STUDENTS' SCHOOL PROGRESS AS EVIDENCED IN RETURNS FROM QUESTIONNAIRES

Introduction

The second part of the previously described questionnaire was formulated to determine a sampling of the factors employed currently to grade students' school progress. These questionnaires, which were mailed to each of the three departments (English, typing, and physical education) of ninety class A high schools of Texas in the year 1949-50, gave a high percentage of returns; namely: typing, sixty-three returns, or 70.0 per cent; physical education, fifty-five returns, or 61.0 per cent; and English, forty-nine returns, or 54.0 per cent.

Part II of the questionnaire was devoted to factors considered in grading students' school progress. There were five columns to be checked: (1) factors employed, (2) factors preferred, (3) separate grade in two sections, (4) Yes and no, and (5) weight and percentage attached to each factor. Spaces were left for the addition of factors possibly overlooked by the investigator. After receiving

the questionnaire returns and tabulating data, the investigator believes that only the first two columns mentioned (factors used and factors preferred) are significant to this study, and they will be the only ones discussed. These two columns are used in each of the three departments: English, typing, and physical education. Six tables of data are given with two tables to each department as follows: English factors, "used" and "preferred"; typing factors, "used" and "preferred"; and physical education factors, "used" and "preferred." The investigator compares the factors "used" in each department with the factors "preferred"; and, in addition, compares as to factors "used" and "preferred" the English department, involving an academic subject, with the physical education and typing departments, involving motor skills.

Factors Employed in Grading the Student's School Progress in Typing, English and Physical Education

Data in Table 3 indicate the factors employed by typing instructors in evaluating the student's progress. The six-week's test was employed by more instructors than any other in grading students in typing classes as indicated by the questionnaire returns. All of the sixty-three typing instructors returning questionnaires checked

this. According to reported use, the next four are: (1) final tests,[1] fifty-seven; (2) skills, forty-seven; (3) daily test, forty-five; and (4) habits, forty-two. Then there is quite a break before the next factor, speed test, with twenty-eight votes.

TABLE 3

FACTORS EMPLOYED IN GRADING STUDENTS IN TYPING AS INDICATED BY THE QUESTIONNAIRE RETURNS

Factors	Times Used	Rank According to Use
Six-week's test	63	1
Final test	57	2
Skills	47	3
Daily test	45	4
Habits	42	5
Weekly test	28	6
Speed test	28	6
Recitation	21	7
Notebooks	20	8
Cooperation	16	9
Promptness	16	9
Daily work	15	10
Self-evaluation	12	11
Courtesy	12	11
Reports	11	12
Units	11	12
Character	11	12
Conduct	11	12
Budgets	8	13
Citizenship	8	13
Accuracy	7	14
Themes	5	15
Attendance	3	16
Production	3	16
Three-week's test	1	17

[1]According to usage, the typing instructors indicate that they employ the following tests in grading student's progress in typing: six-week's tests, 63; final test, 57; daily test, 45; weekly test, 28; speed tests, 28; and three week's test, with one vote.

All the factors listed in Table 3 were employed in grading student's school progress in typing; the one most used being the six-week's test, with sixty-three votes for 100 per cent usage; and the least used being the three-week's test, with only one vote. Four factors were used the same number of times: eleven, for reports, units, character, and conduct.

One factor is significant because of its little usage. Only twelve of the sixty-three typing instructors reported that they used self-evaluation in consideration of student grades.

The factors pertaining to effort such as budget, production, and notebooks, were considered about equally on par with factors pertaining to social traits such as conduct, character, courtesy and cooperation.

The information in Table 4 reveals the factors as employed by English instructors in grading student's growth in English. The final test was the factor used more than any other in grading student's progress in this department.[2] It was employed by forty-seven of the possible forty-nine English instructors for a percentage of 95.

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[2]According to usage, the English instructors indicate that they employ the following tests in grading student's progress in English: final test, 47; six-week's test, 45; daily test, 33; weekly test, 23; unit test, 10; and three-week's test, 1.

There were five other factors grouped very closely following the final test: (1) six-week's test, forty-five votes; (2) recitation and themes, tied thirty-nine votes; (3) reports, thirty-eight votes; and (4) notebooks, showing thirty-seven votes. Between this first grouping of factors and the second and last, there are three scattered individually: daily test, thirty-three; weekly test, twenty-three; and promptness, with eighteen votes. The last group of factors are very closely bunched, according to number of times used, and are about equally divided between factors pertaining to work or effort and those pertaining to social traits or social characteristics.

Twenty-seven factors, according to Table 4, were employed in grading student's progress in English by the forty-nine instructors answering. The most used factor was the final test, with forty-seven; and for the least used factor there are six tied: (1) oral test, (2) participation, (3) workbook, (4) attitudes, (5) grammer exercises, and (6) three-week's test, with one vote each.

Of significance is the fact that self-evaluation was employed by only two English instructors in consideration for grading students in the English department. Promptness, for instance, was used by eighteen instructors; while attendance received fifteen votes with courtesy and character receiving thirteen and ten votes respectively.

TABLE 4

FACTORS EMPLOYED IN GRADING STUDENTS IN ENGLISH AS REVEALED BY THE QUESTIONNAIRE RETURNS

Factors	Times Used	Rank According to Usage
Final test	47	1
Six-week's test	45	2
Recitation	39	3
Themes	39	3
Reports	38	4
Notebooks	37	5
Daily Test	33	6
Weekly Test	23	7
Promptness	18	8
Skills	16	9
Cooperation	15	10
Citizenship	15	10
Attendance	15	10
Habits	14	11
Courtesy	13	12
Conduct	12	13
Unit Test	10	14
Character	10	14
Two-week's test	5	15
Self-evaluation	2	16
Daily work	1	16
Oral test	1	17
Participation	1	17
Work Book	1	17
Attitudes	1	17
Grammer Exercises	1	17
Three-week's test	1	17

The factors employed, the number of times used, and the rank according to usage can readily be noted from the data tabulated in Table 4.

Data in Table 5 point out the factors considerated by instructors of physical education in measuring the student's progress. Four factors out of the thirty-one reported used by instructors in physical education are outstanding in the sense that they are closely grouped according to usage: (1) six-week's test,[3] fifty-two; (2) skills, forty-nine; (3) final test, forty-six; and (4) habits, with forty-two votes. In the second grouping of factors appeared: conduct, thirty-six; cooperation, thirty-two; character, twenty-nine; showering, twenty-six; courtesy, twenty-four; weekly test, twenty-two; and citizenship and participation, tied with twenty votes each. The third group is made up of the remaining factors that were used by fewer instructors in the grading of student's growth.

Significant because of their use by few instructors are: (1) self-evaluation, employed by eight instructors of physical education in consideration of student's grades; (2) leadership, with six votes; (3) care of equipment; and (4) sportsmanship, with two votes each. Attendance, with nineteen votes was placed before these four important social characteristics in grading students.

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[3]According to usage, the physical education instructors indicated that they employ the following tests in grading students: six-week's test, fifty-two; final test, forty-six; weekly test, twenty-two; and daily test, with thirteen votes.

TABLE 5

FACTORS EMPLOYED IN GRADING STUDENTS IN PHYSICAL EDUCATION AS INDICATED BY QUESTIONNAIRE RETURNS

Factors	Times Used	Rank According to Usage
Six-week's test	52	1
Skills	49	2
Final test	46	3
Habits	42	4
Conduct	36	5
Cooperation	32	6
Character	29	7
Showering	26	8
Courtesy	24	9
Weekly test	22	10
Citizenship	20	11
Participation	20	11
Attendance	19	12
Daily test	13	13
Promptness	12	14
Effort	11	15
Care of uniform	10	16
Suit up	10	16
Health	8	17
Self-evaluation	8	17
Cleanliness	7	18
Notebooks	6	19
Reports	6	19
Leadership	6	19
Recitation	5	20
Interest	3	21
Athletic progression	2	22
Care of equipment	2	22
Sportsmanship	2	22
Themes	1	23
Field trips	1	23

The fifty-five instructors who returned questionnaires indicated these thirty-one factors, listed in Table 5, were

employed in consideration of grading students in physical education. The factor used by the most instructors was the six-week's test with fifty-two votes, and the factor used the least was a tossup between field trips and themes, with one vote each.

Factors Preferred by the Instructors for the Consideration of Student's Grades in Typing, English and Physical Education

As previously stated in this chapter, one column in Part II of the questionnaire was "methods preferred," because the investigator was interested to learn if the factors employed by the instructors in the field were also preferred by them.

The data in Table 6 reveal the factors preferred by the typing instructors in consideration of grading student's progress in typing. The factor preferred by the greatest number of typing instructors was the six-week's test,[4] indicated by sixty-one responses out of a possible sixty-three. Only one other factor closely followed the six-week's test in instructor preference; this was the speed test, with fifty-three votes.

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[4]According to preference, the typing instructors indicated they preferred the following tests in grading students in typing; six-week's test, sixty-one; speed tests, fifty-three; daily test, thirty-eight; final test, thirty; and weekly tests, seventeen.

TABLE 6

FACTORS PREFERRED IN GRADING STUDENTS IN TYPING AS REVEALED BY THE QUESTIONNAIRE RETURNS

Factors	Number of Instructors Preferring	Rank According to Preference
Six-week's test	61	1
Speed test	53	2
Daily test	38	3
Daily work	30	4
Final test	30	4
Skills	27	5
Self-evaluation	20	6
Cooperation	20	6
Habits	20	6
Character	18	7
Weekly test	17	8
Courtesy	17	8
Recitation	17	8
Citizenship	11	9
Accuracy	10	10
Interest	10	10
Conduct	9	11
Notebooks	5	12
Attendance	3	13

In the second group of factors preferred by the typing instructors were seven, as follows: (1) daily test, thirty-eight votes; (2) final test, thirty; (3) daily work, thirty; (4) skills, twenty-seven; (5) cooperation, twenty; (6) habits, twenty; and (7) self-evaluation, twenty votes. There are four factors clustered closely in the third group, namely: (1) character, eighteen; (2) courtesy, seventeen; (3) weekly test, seventeen; and (4) recitation, seventeen votes. In the fourth and

last group there are six factors as follows: (1) citizenship, eleven votes; (2) accuracy, ten; (3) interest, ten; (4) conduct, nine; (5) notebooks, five; and (6) attendance, with only three votes.

A total of nineteen factors were listed as being preferred by the sixty-three typing instructors returning questionnaires. Some of the factors checked in the column "used" are not checked in the column "preferred," and there was checked in the column "preferred" that was not checked by any of the instructors in the "used" column, "interest" with ten typing instructors showing a preference for its use in grading students. The following seven factors were checked in the "used" column, but omitted in the "preferred" column of the questionnaire: (1) production, (2) reports, (3) themes, (4) promptness, (5) units, (6) budgets, and (7) three-weeks test.

In comparing and analyzing the data in Table 3, "Factors Employed in Grading Students in Typing," with the data in Table 6, "Factors Preferred in Grading Students in Typing," it was discovered that in the general over-all view they compared very favorably with each other. The typing instructors, as indicated in Table 3, employed twenty-five factors in considering student's grades, while these same instructors revealed a preference for nineteen factors, and all of these preferred factors were indicated

in the "used" column. Significant here is the fact that the factors preferred by the typing instructors are not new, but are currently in use with only a few omissions. Continuing with the analytical comparison of Table 3 and Table 6, it is revealed that the six-week's test was employed by the greatest number of typing instructors, and it was also preferred by the greatest number of the same instructors. However, there are some variances noticed in this comparative analysis. For example, the final test was employed by the second greatest number of instructors, but in preference the instructors dropped it into fourth place and replaced it by speed test. Self-evaluation, furthermore, was used by twelve typing teachers, but preferred by twenty of the same instructors, and, conversely, notebooks were employed by twenty instructors and preferred by only five.

The data in Table 7 reveal the factors preferred by the English instructors in consideration of student's grades. The factor preferred by the greatest number of English instructors was the final test,[5] indicated by forty-six responses from the forty-nine returning the questionnaire.

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[5]According to preference, the English instructors indicated they preferred the following tests in grading students; final test, 46; six-week's test, 41; daily test, 27; unit test, 12, and two-week's test, 7; with weekly test receiving 4 votes.

TABLE 7

FACTORS PREFERRED IN GRADING STUDENTS IN ENGLISH AS REVEALED BY QUESTIONNAIRE RETURNS

Factors	Number of Instructors Preferring	Rank According to Preference
Final test	46	1
Recitation	43	2
Six-week's test. .	41	3
Participation . .	37	4
Daily work	33	5
Notebooks	27	6
Daily test	27	6
Self-evaluation .	24	7
Citizenship. . . .	23	8
Courtesy	19	9
Reports	19	9
Attitudes.	16	10
Cooperation. . . .	13	11
Unit test	12	12
Themes	11	13
Conduct	8	14
Two-week's test. .	7	15
Workbook	5	16
Weekly test. . . .	4	17
Attendance	2	18

Table 7 also shows that four other factors closely follow the final test in preference for grading students in English. They are as follows: (1) recitation, forty-three votes; (2) six-week's test, forty-one; (3) participation, thirty-seven; and (4) daily work, thirty-three. In the second group of factors preferred by the English instructors were seven, indicated as follows: (1) notebooks, twenty-seven; (2) daily test, twenty-seven; (3) self-evaluation, twenty-four; (4) citizenship, twenty-three; (5) courtesy, nineteen;

(6) reports, nineteen; and (7) attitudes, with sixteen votes. Eight factors were clustered together in the third group, namely: (1) cooperation, thirteen votes; (2) unit test, twelve; (3) themes, eleven; (4) conduct, eight; (5) two week's test, seven; (6) workbook, five; (7) weekly test, four; and (8) attendance, with two votes.

Twenty factors were preferred by the forty-nine English instructors, as compared with the nineteen factors preferred by the sixty-three typing instructors. Many of the "used" factors were omitted in the "preferred" column, but no factor was checked in the "preferred" column that was not also checked in the "used" column. The following factors were checked in the "used" column, but omitted in the "preferred" column: three-week's test, promptness, habits, skills, grammer exercises, character, and oral test.

In comparing and analyzing the data in Table 4, "Factors Employed by English Instructors in Grading Students in English," with the data presented in Table 7, "Factors Preferred by English Instructors in Grading Students in English," it was revealed that they compared very favorably with each other in general. The English instructors indicated in Table 4 that they employed twenty-seven factors in considering student's grades, while these same instructors revealed a preference for twenty factors,

and all of these twenty preferred factors were currently in use. Of significance to this investigation is the information that the factors preferred by the English instructors, also the case with the typing instructors, are not new, but are currently in use with but few omissions. Also revealed by the continued analytical comparison, the three factors employed by the greatest number of English instructors[6] are also the three factors showing the greates preference by the English instructors.[7] However, there are some variances noticed in this comparative analysis of Table 4 and Table 7. Self-evaluation, for example, was used by only two English instructors, but was preferred by twenty-four. Daily work was used by only five English instructors, but preferred by thirty-three of the same instructors, and themes were used by thirty-nine English instructors, but preferred by only eleven of the same instructors.

English instructors and typing instructors compare very favorably in that they both employ self-evaluation very little, but they show a very high preference for it.

The data in Table 8 indicate the factors preferred by physical education instructors in consideration of student's grades. The factor preferred by the greatest

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[6]See Table 4, p. 45.

[7]See Table 7, p. 52.

number of physical education instructors was participation, indicated by fifty responses out of a possible fifty-five. Closely following participation, in the first grouping of factors, were three other factors, as follows: (1) skills, forty-two; (2) suiting up, forty; and (3) leadership, with thirty-seven preferences. In group two, the following four factors listed according to preference: (1) habits, thirty-three; (2) care of uniform, thirty-one; (3) final test, twenty-three; and (4) character, with twenty-two preferences. Nine factors are clustered very closely in the third group as follows: (1) sportsmanship, nineteen; (2) six-week's test,[8] eighteen; (3) care of equipment, seventeen; (4) cleanliness, sixteen; (5) courtesy, thirteen; (6) citizenship, thirteen; (7) showering, twelve; (8) interest, eleven; and (9) self-evaluation, with ten preferences. The fourth group of factors preferred are six in number, namely: (1) health, nine; (2) cooperation, six; (3) athletic progression, five; (4) weekly test, four; (5) effort, four; and (6) daily test, with two preferences.

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[8]According to preference, physical education instructors indicate they prefer the following tests in grading students; final test, twenty-three; six-week's test, eighteen; weekly test, four; and daily test, two.

TABLE 8

FACTORS PREFERRED IN GRADING STUDENTS IN PHYSICAL EDUCATION AS REVEALED BY QUESTIONNAIRE RETURNS

Factors	Number of Instructors Preferring	Rank According to Preference
Participation	50	1
Skills	42	2
Suiting up	40	3
Leadership	37	4
Habits	33	5
Care of uniform	31	6
Final test	23	7
Character	22	8
Sportsmanship	19	9
Six-week's test	18	10
Care of equipment	17	11
Cleanliness	16	12
Courtesy	13	13
Citizenship	13	13
Showering	12	14
Interest	11	15
Health	9	16
Cooperation	6	17
Athletic Progression	5	18
Weekly test	4	19
Effort	4	19
Daily test	2	20

Twenty-three factors, listed in Table 8, were preferred by the fifty-five physical education instructors, as compared with twenty factors preferred by the English instructors, and the nineteen factors preferred by the typing instructors. Many of the "used" factors were not preferred, but no factor was preferred that was not in current use. The following factors were checked in the "used" column, but omitted in the "preferred" column;

conduct, field trips, attendance, themes, reports, notebooks, recitation, and promptness.

In comparing and analyzing the information in Table 5, "Factors Employed by Physical Education Instructors in Grading Students in Physical Education," with the information in Table 8, "Factors Preferred by Physical Education Instructors in Grading Students in Physical Education," it was discovered that the data in the two tables did not compare favorably with each other. The physical education instructors indicated in Table 5 that they employed thirty-one factors in consideration of student's grades, while these same instructors revealed a preference for twenty-three factors, and all of these twenty-three preferred factors were currently in use. Of significance here is the knowledge that the factors preferred by the physical education instructors, also the case with the English and typing instructors, were not new, but were factors in current use. The data in Table 5 differed from the data in Table 8 in that the four factors employed by the greatest number of physical education instructors were: (1) six-week's test, (2) skills, (3) final test, and (4) habits; and the four factors preferred by the greatest number of physical education instructors were: (1) participation, (2) skills, (3) suiting up, and (4) leadership. Of the former group only one factor indicated as "used was

included in the "preferred" column, and this was skills. In Table 5, only two physical education instructors indicated care of equipment was considered; but in Table 8, seventeen physical education instructors preferred this factor.

Chapter Summary

In the light of responses received from the questionnaires concerning factors used and factors preferred in the three departments English, typing, and physical education, the following practices and conditions are indicated:

1. All of the factors listed in the questionnaires were employed by the instructors in all three departments in consideration of student's grades, and some new ones were added.
2. The six-week's test and the final test were the two factors employed by the greatest number of instructors in all three departments.
3. English, the academic subject, differs with typing and physical education, both involving motor skills, in the employment of two particular factors, habits and skills. The English instructors show little employment of these two factors by placing skills in tenth place and habits in fourteenth place, while

the typing and physical education instructors rank these two factors considerably higher; for instance, typing instructors place skills third and habits fifth, while physical education instructors rank skills in second place and habits in fourth place.

4. The instructors in the three departments agreed in general concerning the tests employed in grading their students, since each employed the six-week's test and the final test more than any other; but in the case of the daily test, it was noted that the English instructors favor the use of the daily test by placing it third. Differing in this respect, however, the physical education instructors place the daily test in last place.

5. English instructors, typing instructors, and the physical education instructors agree on the employment of the factor self-evaluation by showing very little usage; typing instructors place it eleventh, English instructors rank it in sixteenth place, while physical education instructors delegate it to seventeenth spot.

6. The instructors in each of the three departments indicated a preference for fewer factors than were currently employed. Several factors were used but not preferred by the instructors in each of the three

departments. In this respect all three departments agreed on the omission of promptness as a factor not to be considered in grading students. However, the English instructors varied with the the physical education and typing instructors, in that they omitted both habits and skills, while the typing and physical education instructors not only preferred these two factors but also ranked them very highly.

7. The factors preferred, as indicated in the questionnaires, by the instructors of each of the three departments were in every case factors that are currently in use, with one exception, and that was the typing instructors preferred the factor "interest" and it was not in current use, according to the questionnaire returns, by these same instructors.

8. These three departments differed in that each set of instructors used and preferred certain factors that were peculiar to their particular department. English instructors, for instance used and preferred grammar exercises, while the typing instructors used and preferred speed tests, and physical education instructors used and preferred showering, suiting up, and care of uniform.

9. According to the responses indicated in the returns of the questionnaires, physical education instructors

rank social characteristics higher than do either the typing or English instructors. For example, physical education instructors place conduct in fifth spot, cooperation in sixth, character in seventh, courtesy in ninth, and citizenship in eleventh. Typing instructors delegate cooperation in ninth position, courtesy in eleventh, character in twelfth, conduct in thirteenth, and character in fourteenth.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The problem of this study was to make a comparative analysis of local methods and factors used and preferred in grading students in physical education, typing, and English. This analysis was composed of two parts, giving consideration to (1) the various methods employed and preferred in grading pupils, and (2) the factors that are employed and preferred in the consideration of student's grades. The problem was limited to the factors and methods and preferred in grading students in these three departments as practiced by the instructors in fifty class A high schools of Texas in the year 1949-50.

The purposes of this investigation were two-fold: (1) to determine the methods and factors employed and preferred in the computation of student's grades in physical education, typing, and English; and (2) to make a comparative analysis of the methods and factors employed and preferred in grading students in an academic subject represented by English, and in a subject involving motor skills, represented by typing and physical education.

In preparation for the method of procedure and treatment of data, the first step was to make a survey of literature pertinent to the problem. Secondly, a questionnaire was selected as the most logical device for the collection of the data. Third, the questionnaire was formulated and mailed to ninety class A high schools in Texas. Then all available literature pertaining to the various methods of grading student progress was obtained and read. Thus, it was apparent that selecting the best methods of grading student development held a special significance for teachers, administrators, students and parents.

Information received from literature pertaining to this investigation was presented in the second chapter. It was noted that educational measuring devices was not new but had evolved from the crude methods of measuring in the past to the present system of grading students according to individuality and personal development and growth. As stated by many authorities it is the aim of the educator to develop the whole child as well as his scholastic ability. In order to show the amount and kind of progress a child makes in achieving this end it is necessary to have a more complete type or method of grading. Therefore, much experimentation in the use of methods and factors of reporting student progress has been undertaken in the past few years. The traditional methods of

grading, i. e., percentage and numerical, were noted as one of the oldest and still widely used; however, six of the most important experimental methods used in this section and pertaining to this investigation were described. These methods were: (1) rank, (2) percentile, (3) double marking, (4) grade scores, (5) profiles, and (6) descriptive terms. It was concluded that while these experimental methods of grading did not solve the grading system, experts were of the opinion that definite progress was being made in improving the situation.

As a result of the tabulation of the questionnaires, the following information has emerged:

1. All of the instructors, in each of the three departments of the ninety schools that were sent questionnaires, employed one of the five methods listed in Part I of the questionnaire, no other methods being listed as in current use.
2. Nearly all of the instructors in each of the three departments indicated a preference for one of the five methods listed; however, one English instructor and two typing instructors listed that they preferred other methods but did not state their preference.
3. The letter method (A, B, C, D, and F) of grading was the one indicated as being used by the greatest number of instructors of each of the three departments.

4. There was a discrepancy between the methods employed by the instructors and the methods they preferred. The numerical method was preferred by all three departments, but the letter method was employed by the greatest number of instructors.
5. All of the factors listed in the questionnaires were employed by the instructors in all three departments, and some others were added.
6. The six-week's test and the final test were employed by the greatest number of instructors in each of the three departments, English, typing, and physical education.
7. English, the academic subject, differs with typing and physical education, both involving motor skills, in the employment of two particular factors; namely, skills and habits. The English instructors show little employment of these two factors by placing skills in tenth place and habits in fourteenth place, while the typing and physical education instructors rank these two factors considerably higher. For instance, typing instructors place skills in third position and habits in fifth; and physical education, skills are in second place with habits in fourth.
8. The instructors in the three departments agreed in general concerning the tests employed in grading their

students, since each employed the six-week's and the final tests more than any other test, but in the case of the daily test, the English and typing instructors favor it with third place; whereas, differing in this respect, the physical education instructors delegate it to last place.

9. English, typing, and physical education instructors agree on the employment of self-evaluation, indicating that very few of them use it, however.

10. The instructors in each of the three departments indicated a preference for fewer factors than they had been currently employing.

11. Several factors were used but not preferred by the instructors in each of the three departments. In this respect all three departments agreed on the omission of promptness as a factor not to be considered in grading students. However, the English instructors varied with the physical education and typing instructors, in that they omitted both habits and skills, while the typing and physical education instructors not only preferred these two factors but also ranked them very highly.

12. The factors preferred by the instructors in each of the three departments were in every case those that were currently in use, with one exception: typing

instructors showed a preference for "interest" although not using it in actual practice.

13. The three departments differed in that each set of instructors used and preferred certain factors that were peculiar to their particular department, viz., English instructors used and preferred grammar exercises, while the typing instructors used and preferred speed tests, and the physical education instructors used and preferred showering, suiting-up, and care of uniform.

14. Physical education instructors rank social characteristics higher than do either the typing or English instructors. In this connection, physical education instructors place conduct in fifth spot, cooperation in sixth, character in seventh, courtesy in ninth, and citizenship in eleventh, whereas, both the typing and English instructors place these factors from ninth to fourteenth positions.

Conclusions and Recommendations

A study of the factors and methods employed and preferred in other courses should be made as a parallel study to this one. The lead in this endeavor might well be assumed by the State Department of Education which might also, after more facts are available, recommend certain

proven methods and factors that will assist instructors to measure not only academic achievement but the all-round growth of personality of the student with more validity, objectivity, and reliability than is practiced today.

School administrators and instructors should make adequate appraisal in their own schools of the currently used measuring system. In view of possible improvement, there are other studies pertaining to grading which teachers and administrators should consider in revising their current practices of grading.

Colleges and all accrediting agencies should view with interest the experimentation of the Department of Education and the appraisal of the evaluating systems of the schools and they should accept valid results, cooperating with one another as one continuous process of education.

APPENDIX

Dear Teacher:

As a student of North Texas State Teacher's College, and in partial fulfillment of the work for a Master's Degree, I am making a study of the factors and methods employed in grading students. My problem is "To make a Comparative Analysis of the Factors and Methods Employed in Grading Students in 50 Class A High Schools of Texas." In an effort to secure information pertinent to the problem the questionnaire in the following pages have been formulated. I believe you will find the items clear, and that responding to them will take a minimum of time. Being a teacher in the field, your experience and knowledge will be of great assistance to me.

Enclosed you will find a self-addressed and stamped envelope for your convenience. I shall be most grateful to you for your co-operation.

All names of people and institutions will be kept in strict confidence. The result of this study will be available to you if you so desire.

Thanking you very kindly,

Ralph Havenhill

QUESTIONNAIRE

In Part I, check in the appropriate column the method you use in your classes, and if preference is other than the method used please so indicate.

In Part II, please check each column, and in the last column please indicate weight in percentage. Example: If daily tests count one-half of final grade, mark 50 %.

Part I Methods of Grading Students

	Used	Preferred
A B C D & F		
Percentage		
Numerical		
Excellent, Very Good, etc.		
Satisfactory, Unsatisfactory, etd.		
Others		

Part II Factors Used in Grading Students

	Used	Pre-ferred	Separate Grade Yes	No	Weight or Percentage
Daily Tests					
Weekly Tests					
Six-Week's Tests					
Final Tests					
Other Tests					
Recitation					
Notebooks					
Reports					
Themes					
Self-evaluation					
Promptness					
Habits					
Skills					
Attendance					
Others					
Character					
Co-operation					
Courtesy					
Citizenship					
Conduct					
Others					

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