TO DETERMINE AN EVALUATIVE INSTRUMENT FOR
EVALUATING A MODERN SCHOOL PROGRAM

APPROVED:

Harold Greenholtz
Major Professor

Robert Toulouse
Minor Professor

Witt Bevins
Dean of the School of Education

Jack Johnson
Dean of the Graduate Division
TO DETERMINE AN EVALUATIVE INSTRUMENT FOR
EVALUATING A MODERN SCHOOL PROGRAM

THESIS

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By

Thomas Howard Williams, B. S.
168686
Plano, Texas
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CHAPTER I

INTRODUCTION

Problem

This is a study to determine an evaluative instrument for evaluating a modern school program.

Purpose of Study

The purpose of this study is to determine an evaluative instrument for evaluating a modern school program. Evaluative instruments are constantly being studied, revised, and constructed so that school programs can be adjusted to better equip boys and girls for wholesome living. H. H. Remmers and L. N. Gage made the following statements concerning the purpose of evaluative devices:

To enable the right pupils to receive the right education from the right teachers may be considered the aim of the good educational system. Although at first glance this definition seems merely a truism, it does provide the basis for an approach to the question of why pupils should be evaluated. For the present discussion, directed toward classroom teachers, let us assume that the right teacher has been discovered and is operating, and even becoming 'righter' as he reads this book. But the right teacher must be concerned whether he has the right and is giving them the right education. And to satisfy these concerns he must evaluate his students and discover whether the learning process in which he is leading them is bearing desirable fruit for them individually and for the society they should serve. The right pupil is the pupil whose personal attributes and opportunities enable him to profit fully from the education offered him. The right education is the education
best suited to the needs of both society and the pupil. Obviously, the task of determining this rightness of pupils and education is a task for the process of evaluation. Pupils' attributes and opportunities must be ascertained. Pupil behavior must be evaluated at all stages of the interaction between pupil and education to determine the fitness of one for the other.  

Definition of Terms

An evaluative instrument in this study is considered to be a tool by means of which school people may better select and construct evaluative techniques for evaluating a modern school program. The word "tool" is used to denote the criteria of good measuring devices, cautions concerning these criteria, and the limitations of some of the measuring devices.

Evaluating in this study signifies the collection of data on pupil behavior to be used in any way possible in helping the individual become a more wholesome person in his living. A general statement on evaluation was given by R. W. Tyler in the following manner:

Evaluation provides a means for the continued improvement of the program of education, for an ever deepening understanding of student with a consequent increase in the effectiveness of our educational institutions.

Johnathan M. Lee agrees with this idea of evaluation, as is indicated by his statement as follows:

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The only excuse for a testing program of any kind is in terms of the use made of the results. Unless such testing results in immediate or ultimate improvement in the education of children, there is no justification for testing. 3

Modern school program in this study identifies a school that is built with the desired outcome of wholesome living in the basic purpose areas of living. The purpose areas of living are to be determined within this study.

Sources of Data

The data used in this study were gleaned from much reading in books, bulletins, and pamphlets in the fields of democratic principles, needs of youth, areas of living, use and construction of tests, and education in general.

Treatment of Data

This study is presented in five chapters. The first chapter gives the statement of the problem, the purpose of the study, definition of terms, sources of data, and an evaluation of related studies in the field.

In Chapter II an attempt is made to analyze a modern school program.

The third chapter attempts to make an analysis of the principles of evaluation techniques.

In Chapter IV an attempt is made to apply the principles

developed in Chapter III to the techniques to be used in evaluating the modern school program which was developed in Chapter II.

In Chapter V the conclusions and recommendations reached from the study are given.

Related Studies

In her thesis "To Determine a Sound Program for Organizing the Needs of Youth and the Curriculum in the Secondary School," Frances Geraldine Voss made a study of the needs of youth and of a curriculum to meet those needs.4

Five of the twenty-three needs of youth which she discovered are as follows:

1. All youth need to develop and maintain good health and physical fitness.

2. All youth need to be instructed in the proper use of leisure time.

3. All youth need a range of personal interests for aesthetic satisfactions.

4. All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding.

5. All youth need the required knowledge and skills in fundamentals (reading, writing, etc.).

She also came to the conclusion that these needs could be fulfilled in a curriculum built around the following purpose areas of living:

1. Living in the home.
2. Leisure or recreational living.
3. Making a living (vocation).
4. Living in the community.

This study follows the study of Voss through the second chapter and then attempts to analyze the principles that are used in evaluating a school built around the four purpose areas of living.

Nannie D. Andrews, in her thesis "To Determine the Place of a Sound Guidance Program in the Secondary School," made an analysis of the need for applying the principles of democracy and of modern psychology as a measure of soundness in a guidance program. She made a study of two guidance programs in operation, and came to the conclusion that there was a definite need for a guidance program in secondary schools. The relation between her study and the present one is that she

5Ibid.
used the principles of democracy and of modern psychology as a measure of soundness in a guidance program, while in this study those principles were used to mould the type of school program needed by society. In all other respects these studies differ widely.

Hubert Alfred Hefner's thesis, "An Evaluation of the Graham School District," evaluates the finances of the district, the school plant, the curriculum, the teaching staff, and the pupils. His study was different from the present one in that his study was made in connection with a comparison of nine other schools of that area, while this study has no particular district in mind. His study called for no reorganization of the school program, while this study recommends reorganization around the four purpose areas of living.

"Evaluation of a Need and Organization of Guidance in the Sanger Public School," a thesis written by Geo C. Habern, is related to the present study in that it was established on the basis of need of the students. The needs in the Sanger case were established by aptitude and interest tests, while needs in this study were gleaned from other studies concerning the needs of youth. The Sanger study gave an answer to these needs in offering a guidance program suitable for the individuals in carrying on their everyday activities as

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citizens of a community. This study attempts to solve the needs of youth by offering a reorganized school program.

CHAPTER II

ANALYSIS OF A MODERN SCHOOL PROGRAM

The purpose of this chapter is to make an analysis of a modern school program. This analysis was made by examining books, bulletins, articles, and unpublished materials dealing with the needs of youth from the time they enter school until they graduate.

Since the United States of America is generally conceded to be a democratic nation, it is proper to plan a modern school program based on the needs of individuals for living a democratic life. If the goal of our nation is democracy, we should plan our modern school program in such a way as to further this democratic ideal. In building our modern school program, then, if our nation is to go forward as a democratic one, it is necessary to follow the principles of democratic living.

Before a modern school program can be planned to further democratic living, an attempt should be made to establish some fundamental principles for democratic living. Numerous analyses of democracy by political leaders and philosophers have been summarized in the form of a platform by Arthur D. Hollingshead in his book, Guidance in Democratic Living, and these will be used to keep this modern school along the lines that the majority of our people want, believe in, and desire
to see expanded. These fundamental principles may be stated as follows:

1. Democracy regards the individual as of inestimable value and his development as the sole objective of society.
2. Democracy guarantees an equality of rights to all individuals.
3. Democracy insures freedom to all individuals.
4. Democracy regards individual and group welfare as interdependent.
5. Democracy places the relations of individuals upon a plane of fraternity, that is, the rights of individuals are dependent upon the assumption by each member of the obligation to guarantee to every other member the same rights which he himself expects to enjoy.
6. Democracy achieves its common goals through the cooperative efforts of its members.
7. Government in a democracy is 'of the people, by the people, and for the people'.
8. Democracy depends upon education as a means of perpetuating and improving itself.1

In this democratic living picture the words "individuals," "equality," "rights," "freedom," "cooperation," "guarantees," and "insures" play a prominent part, and these should be promoted in a modern school program.

Thomas Mann defines democracy as "that form of government and society which is inspired above every other with the feeling and consciousness of the dignity of man."2 The principle of respect for the individual and interest in individual development gives democracy a unique and forceful

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1Arthur D. Hollingshead, Guidance in Democratic Living, pp. 11-33.
2Ibid., p. 11, quoting Thomas Mann, The Coming Victory of Democracy, p. 18.
philosophy. The term "individual" cannot be limited to the adult. If the development of the individual is the sole objective of society, then children must be taken into consideration, for they are democracy's greatest asset. They represent a new opportunity to build a better social order through the development of individuals who are more capable of translating democratic principles into all phases of our national culture.

L. Thomas Hopkins, in his book called *Interaction: the Democratic Process*, reaches the conclusion that "education is a function of total culture."³ If democracy is our national culture, and education is a function of total culture, then a modern school program must develop culture. Each individual living in a culture is educated by the total culture with which he interacts. Eight ways of developing this culture are as follows:

1. Getting a living, or obtaining a reasonable amount of food, shelter, and clothing.
2. Marrying, having children, and maintaining a family life.
3. Accepting and performing some sort of religious beliefs and practices.
4. Developing individual security within the world in which they live.
5. Attaining a degree of respect and acceptance by the group in which they live.
6. Achieving reasonable freedom to discover and develop their own individual capacities.
7. Attaining some personal distinction which gives individual recognition among their fellowmen.

8. Believing with others in some common objects of allegiance which tend to bring group units and direct the behavior of the individuals.4

If the country we live in is democratic and has a national culture, the situations faced by the learner will be solved by the individual along democratic lines. We should examine some of the attributes of the situations that learners face from day to day and from one stage of development to another. First, we can say that situations facing the learner are nearly always complex. This might be demonstrated by a girl who is making a dress. She is confronted with the situations of selecting, measuring, and purchasing, as well as making.

Second, situations faced by the learner are combined in different ways. One individual may select a poor lunch, because he does not know what constitutes a properly balanced one. His neighbor may select a poor one because of lack of funds. Another may make the mistake of letting his greed for rich desserts cause him to make a poor selection.

Third, situations may face learners under very different conditions. One girl must make her own clothes; therefore, the situations that she faces are different from those facing the girl who has only to buy hers. One child might have to bring a lunch to school and try to get a balanced one from things at home, while another may eat in the school cafeteria.

4Ibid.
Fourth, situations reappear at different stages of the individual's development. The situation of electing leaders will arise in the first grade room. It will also arise in instances throughout the many stages of the individual's development.

Fifth, situations reappear in many aspects. The child may learn to make change in money at school. He will also learn this procedure at the candy store, the carnival midway, and at home.

The diagram which follows indicates the general nature of the analysis made in Developing a Curriculum for Modern Living, by F. B. Stratemeyer, H. L. Forkner, and M. G. McKim. It shows the sources of the situations of everyday living which are actually faced by the learners, the areas in which the persistent life situations recurring in these daily life experiences have been grouped, and the way in which they are interrelated.\(^5\)

The situations of everyday living, as indicated on page 13, reside in five major aspects of human life: in the home, as a member of the family; in the community, as a participant in civic and social activities; in work, as a member of an occupational group; in leisure time; and in spiritual activities, whether or not they are definitely connected

EDUCATION IN OUR DEMOCRACY

means

Development of individual understandings and responsibilities in dealing with

INDIVIDUAL AND GROUP SITUATIONS OF EVERYDAY LIFE

in

The Family--Civic, Social Act--Work--Leisure--Spiritual Life

by providing

MAXIMUM GROWTH IN INDIVIDUAL CAPACITIES

in situations involving

Health Intellectual Moral Aesthetic Expression and Appreciation

Power

MAXIMUM GROWTH IN SOCIAL PARTICIPATION

in situations involving

Person-to-Group Intergroup

Person Membership Relations

as the learner grows in ability to deal with

ENVIRONMENTAL FACTORS AND FORCES

in situations involving

Natural Phenomena Technological Economic, Political, Social Structures and Forces

Fig. 1--Areas of living

Tbid.
with an organized religious group. From these five sources come the problems and situations which are actually faced by learners and with which the school curriculum must be concerned. 7

All learners are members of family groups, and as such they face a wide variety of situations with which they must deal. These situations range from putting away clothes or sharing toys to helping plan the family budget, preparing meals, caring for younger children, and taking care of persons who are ill.

All are members of civic and social groups, not only in the school, which is in itself a complex and vital community for those who are a part of it, but also in the local and national community. From the three-year-old interested in the policeman's uniform to the adolescent deciding whether or not he should cross the picket line in the local theater, learners are bringing their community problems to school and are asking for help.

Work life, denoting activities which have for their purpose the performance of tasks which society wants done, is an integral part of the life of every one. The responsibility of caring for the aquarium, assumed by an elementary school child, or the task of editing the school paper, assumed by the high school youth, is no less a work obligation

7Ibid., p. 100.
than is the time spent by a parent in the local factory or on the staff of a city newspaper.

Leisure time, which includes those spare minutes when one feels under obligation to no one but himself, is also a vital part of the lives of both young and old. "What shall I do now?" is a recurring question. From the answers grow hobbies, lasting interests in music, art, or good books, ability to paint, carve, or write, and those social abilities which make one a good host or a pleasant companion.

Every person also spends time seeking to identify, expressing allegiance to, and drawing upon those omnipotent deities, the common man, the state, the machine, natural forces, or himself at the center of his universe. Every man identifies that to which he is willing to devote his life. From the small child asking questions about the stars, deciding whether or not to share his toys with his friends, or going with his parents to church, to the adolescent struggling with his personal philosophy of life and orientation to his world, learners are spending part of their time in concern about the spiritual aspects of living.

A modern school program must follow the influence of educational psychology. The committee working on curriculum for the Department of Secondary-School Principals listed the following six items as fundamental principles:

1. Learning proceeds more rapidly and tends to be more permanent when relationship between what is
being experienced and the welfare of the learner are seen by him.

2. Learning proceeds more rapidly and tends to be more permanent when it is an outgrowth of, or a development from, the experience of the learner.

3. Learning proceeds more rapidly and tends to be more permanent in proportion to the amount of satisfaction the learner derives from the process of learning, and in proportion to the immediacy of the satisfaction.

4. Learning proceeds more rapidly and tends to be more permanent when it involves activity, physical and mental, on the part of the learner.

5. The probability that what is learned will later be recalled for use when needed increases in proportion as the learning situation resembles that in which the learning is used or applied.

6. The probability that what is learned will later be recalled for use when needed increases in proportion as the relationships between each element (skill, idea, fact, ideal) which is being learned and the other elements being learned is understood by the learner.  

The committee continues by saying that successful learning must be meaningful to the pupil; it must grow out of his active experience; it must be intimately related to the development of his whole personality; it must provide him with emotional satisfactions, and it must be ready for use in the situations he meets in life.

The committee also points out that the school has a double function: first, to train boys and girls for cooperative action in a more equitable social order; second, to make them productive members of society. The first function

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should be devoted to society's needs for the growth of ability and willingness to sustain and improve the mutually helpful relationships with other human beings which a democratic philosophy of life assumes should characterize group living. The second function should include those experiences concerned with supplying society's need for the growth of ability so as to manage and utilize the potentialities of our natural physical environment in order that it may make its maximum contribution toward the attainment of the high levels of human living which a democratic society seeks for all.

The picture of the new society which has been produced by the social trend of the past half-century leaves no doubt but that the old world-wide concept of laissez faire and of individualistic competition must now be discarded.\(^9\) The theory of life upon which we base our new educational program will be social and cooperative, rather than ruggedly individualistic and exploitive. The social man, the cooperative man, must come to be the consciously-phrased ideal of family, neighborhood, and institutional life.

In the past the ideal American, insofar as educational workers have visualized him, has been the successful, restless producer of projects, a schemer, not a thinker, a rugged individualist, not a cooperater, a builder, not a designer.

Thus, educational workers have tended to hold a non-social theory of life and of education, a theory that has emphasized the right of individuals to exploit without hindrance. They must now recognize that the trend of society is in another direction—toward the widespread socialization of group activity and purpose. Already there is growing acceptance of the concept of social cooperation instead of individual exploitation. Many business men and political leaders, with their profits and careers at stake, are grudgingly conceding the necessity for some social control over economic life.\textsuperscript{10}

A person grows with his group and the group with him.

A group of persons working for the National Association of Secondary-School Principals have compiled a list of imperative needs of youth. These needs were used in evaluating schools, and a series of check lists were worked out to show whether the schools being evaluated were meeting these imperative needs of youth. These needs will be stated here, because they tend to show what high school principals endorse as being the needs of youth.

1. All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. To this end, most youth need supervised work experience as well as education in the skills and knowledge of their occupations.

2. All youth need to develop and maintain good health and physical fitness.

\textsuperscript{10}bid., p. 271.
3. All youth need to understand the rights and duties of a citizen of a democratic society, and to be diligent and competent in the performance of their obligations as members of the community and citizens of the state and nation, and of the world.

4. All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life.

5. All youth need to know how to purchase and use goods and services intelligently, understanding both the values received by the consumer and the economic consequences of their acts.

6. All youth need to understand the methods of science, the influence of science on human life, and the main scientific facts concerning the nature of the world and of man.

7. All youth need opportunities to develop their capacities to appreciate beauty in literature, art, music, and nature.

8. All youth need to be able to use their leisure time well and to budget it wisely, balancing activities that yield satisfactions to the individual with those that are socially useful.

9. All youth need to develop respect for other persons, to grow in their insight into ethical values and principles, and to be able to live and work cooperatively with others.

10. All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding.¹¹

Society makes certain requirements of all its youth. These requirements become the common needs to be met by education. All communities can meet these needs through their schools, but before this can be accomplished, they must get together on certain principles.¹²


¹²National Education Association of the United States, Educational Policies Commission, Education for All American Youth, pp. 11-22.
The Educational Policies Committee of the National Education Association pointed out the following school principles upon which to agree:

1. Every community should offer a well balanced program, based on the needs of youth. Schools must be planned to meet the needs of all youth. They are a state investment in good citizenship, health, personal living, and occupational competence.

2. Every youth should attend school until he has completed high school. Schools are so necessary to boys and girls and to the state that all youth should have the benefit of their services. It is the obligation of the parents to provide adequate educational facilities, and the responsibility of youth to take advantage of these opportunities.

3. Public schools should be community institutions, serving the needs of youth and adults alike. The school plant and its facilities belong to the community and should be used the year around for community improvement, education, and recreation.

4. Schools should be adequately equipped, and staffed by competent classroom teachers, supervisors, and administrators, all of whom should receive compensation sufficient to live as respected members of the community. A well balanced, effective program of education requires capable professional workers. No others can do the job, and adequate compensation is necessary if we are to attract to the profession those competent to do the job.

5. Every school should be organized to serve the general welfare by teaching the meaning of democracy and by operating democratically. If the state is to support education, its investment must yield dividends in better citizenship.13

As this study progresses, there is a tendency for democratic needs, psychological needs, and common sense needs to fall in areas of learning. Committees working on the problem of what should be included in the curriculum have grouped the

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needs of youth. One instance of area grouping can be found in a report prepared by V. T. Thayer, Caroline B. Zachry, and Ruth Kotinsky for the Commission on Secondary School Curriculums of the Progressive Education Association. They suggest that the secondary school program should be entirely re-oriented about the needs of youth. Four general ideas are used to classify the needs of youth: They are:

1. Immediate social relationships
   a. Relations with parents
   b. Heterosexual development
   c. Expanding meaningful and satisfying friendships and group contacts
   d. Development of satisfactory ideals and codes of ethics

2. Wider social relationships
   a. Development of social insight
   b. Development of social responsibility

3. Economic relationships
   a. Understanding of economic society
   b. Assurance of a responsible role in economic society
   c. Vocational guidance
   d. Vocational preparation

4. Personal living
   a. Adequate philosophy
   b. Realization of more abundant personal living.\(^{14}\)

Charles E. Germance and Edith G. Germance used some fourteen thousand questionnaires in a study to try to discover the problems of adolescents. It was the consensus of opinion of the scores of graduate students assisting in the work that these thousands of adolescent problems and questions could be grouped into ten areas. These areas were:

1. How to work and study effectively.
2. How to get along with others (Success in human relationships).
3. How the emotions and feelings are affected by conditioning factors of the environment (Area of mental health).
4. How to choose a vocation.
5. How to develop a wholesome philosophy of life (Area of ethics, religion, character).
6. How to insure a happy home life (Area of family relationships).
7. How to be more charming (Aesthetic, culture, and charm area).
8. How to choose wisely one's recreations (Hobbies, leisure activities).
9. How to become more intelligently tolerant and interested in world problems (Racial and class prejudices, prevention of war).
10. How to improve one's physical health and endurance.\(^{15}\)

Germane and Germane, together with their working group of graduate students, made a graph of these areas to show integration. It is the integration of these areas that produces the wholesome individual.\(^{16}\)

These areas of living are designed to include the everyday problems facing the individual in his attempt to become a useful and wholesome member of the community in which he lives. If these areas could be developed by each individual, the task of re-orienting the modern school program would become a smaller problem.

Figure 2 takes the form of a wheel, and notation is made that a wheel is no stronger than its weakest part. The

\(^{15}\text{Charles E. German and Edith G. German, Personnel Work in High School, p. 29.}\)
\(^{16}\text{Ibid., p. 30.}\)
individual is the center or hub of the wheel. The figure as pictured here may show the integration of the areas.

**Fig. 2**—Ten areas of experience by Germane and Germane.\(^{17}\)

\(^{17}\)Ibid.
The committee that pointed out school principles upon which to agree, given earlier in this study, also planned two hypothetical schools. One was called Farmville, and the other, American City. Farmville represented the rural school and was planned for a town of approximately two thousand five hundred population. American City represented the large city school and was planned for a city of approximately three hundred thousand population. These programs attempted to show the modern trend of school program planning, and the areas used in these schools were given as follows:

Farmville school (rural)
1. Family life, health, mental hygiene
2. Physical education, leisure
3. Music, literature, art, cultural heritage
4. Civic competence
5. Vocational training
6. Elective and remedial studies.

American City school (city)
1. Personal interests
2. Individual interests
3. Vocational preparation
4. Common learnings
5. Health and physical fitness.

One other point brought out in these hypothetical schools was the varying of periods. One day's program could vary from another, and the program could also vary at different times of the year.


19 Ibid., p. 47.
Donald C. Doane made a study of the needs of youth and arrived at those needs by an inventory of current literature. He did not consult youth directly, but the literature he used in his study was a result of direct contacts with youth in a great number of cases. This study may have some merit; therefore, the list of major areas are given as follows:

1. Vocational choice and placement
2. Philosophy of life; mental hygiene
3. Getting along with people
4. Morals
5. Plans for marriage and family
6. Leisure time and recreation
7. Finances
8. Relationships with opposite sex
9. Health
10. Sex and reproduction
11. Religion
12. Relationships with family
13. Social competence
14. Conventional subject matter areas
15. Other areas of interest. 20

Harl R. Douglass, in his book The High School Curriculum, gave the following objectives of the Parker School. It should be remembered that the Parker School is an example of the community school.

1. To develop better citizenship in both children and adults. (Acceptance of responsibility, leadership, personality).
2. To meet the individual needs of the people. (Health, basic skills, vocational self-sufficiency)
3. To work in and with the community for improved living. (Better homes, worthwhile leisure-time activities, cooperative work, people fitted into proper roles in community life) 21

20 Donald C. Doane, The Needs of Youth, pp. 53-54.

J. C. Matthews and Harold Brenholtz, in an article concerning interest guides for young people, gave four objectives; namely, wise use of home time, wise use of leisure time, wise use of civic time, and wise use of vocational time. The needs of youth and also of adults tend to fall into the spheres of these objectives.

Voss made a check with the objectives under the names of purpose areas of living with a limited number of generally recognized needs of youth. Each of these needs fell into one or more of these purpose areas of living.

The following recommendations are made for a modern school program:

A modern school program should follow a democratic plan of living. The child should be helped with his problems as an individual. He should experience equality, rights for himself, and denial of those rights so that others may have theirs. A modern school program should have cooperation. If a child is to experience democratic living, equality, and cooperation, these experiences must be made available to him wherever he may be. Whether at home, at work, or spending his leisure time, he is taking part in his community. It seems imperative, therefore, that democratic principles

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23. Voss, op. cit.
be practiced in those places if growth in democratic living is to be achieved.

A modern school program should develop a national culture by the processes of making a living, marrying, developing individual security, attaining a degree of respect within the group, attaining personal distinction, and having allegiance. These factors tend to bring group unity and direct the behavior of the individual. The child will be found at home, making a living, spending his leisure time, and taking part in his community. This culture must be developed in him wherever he is through the experiences he is having.

Situations faced by the learner are complex, combined in different ways, under different conditions, reappear at different stages of the child's development, and reappear in many aspects. A partial list of situations that face the learner may be given as follows:

I. Health
   A. Satisfying physiological needs
      1. Meeting food needs
      2. Meeting needs for air and light
      3. Maintaining needed body temperature
      4. Securing needed rest and activity
      5. Meeting sex needs
      6. Getting rid of body wastes
   B. Satisfying emotional and social needs
      1. Achieving secure relations with other people
      2. Making constructive use of emotions
      3. Achieving self direction
   C. Avoiding and caring for illness and injury
      1. Avoiding
      2. Avoiding accidents
      3. Caring for physical defects
      4. Caring for illness of injury
II. Intellectual power
   A. Making ideas clear
      1. Using language to communicate ideas
      2. Using media other than language to express ideas
   B. Understanding the ideas of others
      1. Reading
      2. Listening
      3. Observing
   C. Dealing with quantitative relationships
      1. Interpreting number values and symbols
      2. Computing
   D. Using effective methods of work
      1. Planning
      2. Using appropriate resources
      3. Using a scientific approach to the study of situations

III. Responsibility for moral choices
   A. Determining the nature and extent of individual freedom
      1. Responding to authority
      2. Acting upon a personal set of values
   B. Developing responsibility to self and others
      1. Preserving integrity in human relationships
      2. Meeting the needs of others
      3. Developing and using the potential abilities of self and others

IV. Aesthetic expression and appreciation
   A. Finding sources of aesthetic satisfactions in oneself
      1. Expressing the self through varied media
      2. Achieving artistry in daily work
      3. Achieving attractive personal appearance
   B. Achieving aesthetic satisfactions through the environment
      1. Provide artistic living conditions
      2. Secure beauty through community planning
      3. Securing aesthetic satisfactions through the natural environment

V. Person-to-person relationships
   A. Establishing effective social relations with others
1. Developing friendships and affectionate relationships
2. Responding to casual social contacts
3. Participating in social activities

B. Establishing effective working relationships with others
1. Working with others on a common enterprise
2. Working with others in service group relationships
3. Working in situations demanding guidance relationships

VI. Group membership
A. Deciding when to join a group
1. Deciding when group activity is desirable
2. Deciding on the nature and extent of group participation
B. Participating as a group member
1. Helping to formulate group policy
2. Selecting leaders
3. Helping to carry out group policies
C. Taking leadership responsibilities
1. Outlining preliminary plans needed to carry out leadership responsibilities
2. Securing cooperative participation of group members

VII. Intergroup relationships
A. Working with racial and religious groups
1. Understanding the basic purposes and characteristics of racial and religious groups
2. Safeguarding the rights and responsibilities of racial and religious groups
B. Working with socio-economic groups
C. Dealing with groups organized for specific action

VIII. Natural phenomena
A. Dealing with physical phenomena
B. Dealing with plant, animal, and insect life
C. Using physical and chemical forces

IX. Technological resources
A. Using technological resources
1. Using tools, machines, and equipment
2. Using household and office equipment and appliances
3. Using instruments of communication
4. Using transportation

B. Contributing to technological advance
1. Supporting experimentation which contributes to the development of technological resources
2. Assuring the use of technological resources for maximum social good

X. Economic-social-political structures and forces
A. Earning a living
1. Providing for the work needs of society
2. Assuming individual work responsibility
3. Achieving effective workmanship
4. Determining what should be paid for work
5. Working in and through vocational structures

B. Securing goods and services
1. Making the world's goods and services available
2. Buying and selling the world's goods and services
3. Managing money

C. Providing for social welfare
1. Working in and through the family group
2. Participating in community provisions for welfare
3. Using government as a means to guarantee welfare

D. Molding public opinion
1. Participating in organized education
2. Working with educative agencies other than the schools
3. Using instruments for disseminating information

E. Participating in local and national government
1. Electing governmental representatives
2. Securing effective organization for government
3. Making and enforcing laws
4. Providing adequate financial support for government.\textsuperscript{24}

There is no place for the child to experience these situations except while living at home, living at work, living his leisure time, and living as a part of the community.

The modern school program should not forget the influence of educational psychology. In order that the growth of the child may be rapid, the relationship between what is being experienced and the welfare of the learner should be seen by him. He will tend to grow faster when the situation is an outgrowth of, or a development from, one of his own experiences. The amount of satisfaction that he derives from the process of learning, and the immediate use of that learning, will determine the rapidity of learning. Needs, satisfactions, and use of learning will be found in the child's home life, in his work life, in his leisure life, and in his community life.

The ten imperative needs of youth are found in the child's life at work, at home, at play, and with his group. The modern school program should be a kind of workshop where children can live the problems, experience the problems, grow with the problems, and learn the problems of home, work, play, and community.

\textsuperscript{24}Stratemeyer, Forkner, and McKim, \textit{op. cit.}, pp. 106-118.
Figure 3 offers this type of modern school program.

Fig. 3--Areas of living by the writer.
This type of modern school program can be considered sound because:

1. It is in itself democratic living (philosophical).
2. It develops a national culture.
3. It is the life living situation faced by the learner.
4. It is integrated, as is all life (psychological).

The central purpose of picturing the modern school program in diagram form was to show that every area of living is interlinked with every other area. Take the behavior of safety, for instance. When a child lives safely in one area of living, that safe living must be practised in other areas if the desirable outcome of wholesome living is to be attained. The hub of the wheel is designated as the child, and his wholesome living will be the result of the integration of the living areas about him. These areas are so integrated that if one is affected, there will be a difference in the child's living in the others. An example might be made in this manner: Let the area of making a living be seriously affected by poor physical health. It will immediately become apparent that there is much integration between the two areas of living. Since this school is to be a school of living, it is the function of one's knowledge, and not the knowledge itself, that is the desired outcome.
In closing this chapter it might be well to give one bit of experience from the Holtville school. In a modern or new type school program there is a considerable amount of misunderstanding concerning the school in spite of the effort to interpret it to the people. 25

CHAPTER III

AN ANALYSIS OF THE PRINCIPLES OF EVALUATIVE TECHNIQUES

The purpose of this chapter is to make an analysis of the principles of evaluative techniques.

Walter G. Patterson says, "there is grave doubt as to whether or not the traditional high school can become elastic enough in philosophy and practice to meet the challenge of all youth that has been thrust upon it."\(^1\) Since Chapter II of this study agrees with the above statement, and goes even further, it becomes necessary to gather data and eventually to evaluate a modern school program. People have been measuring or evaluating each other since time immemorial, and the modern school program also needs to be evaluated. "The results of teaching are observable only in the performance of the learner, so, obviously, a description of the performances of the pupils is the only means by which the teacher may determine the results of her instruction."\(^2\)


Educational measurement and educational evaluation are connected in the following manner. "Educational measurements do not in and of themselves constitute evaluation; the reason for measuring is to get data for evaluation." 3

In research concerning this study a list of principles used by the makers of tests and measuring devices was compiled. These principles are:

1. Validity
2. Reliability
3. Adequacy
4. Objectivity
5. Administrability
6. Scorability
7. Comparability
8. Economy
9. Utility

The following definitions, statements, and modifications are given, from which it is hoped that a list of principles, with or without modifications, may be recommended as sound for the purpose of developing techniques for evaluating a modern school program.

Validity.--When a test really measures what it purports to measure and consistently measures this

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same something throughout the entire range of the test it is a valid test in its entirety.  

Validity.—A measuring instrument is said to possess validity if it accomplishes the purpose it is stated or intended to perform.  

Validity.—Validity is the most important, for unless a test is valid it serves no useful function. The validity of an examination depends upon the efficiency with which it measures what it attempts to measure.  

Validity.—Validity is often defined as the property of a measuring instrument to measure what it purports to measure.  

Validity.—The validity of a measuring device is usually established by showing that it possesses a high relationship with other valid and reliable measures of the ability under investigation.  

Validity.—Validity is a specific rather than a general criterion of a good examination. Tests cannot correctly be described as valid in general terms, but only in connection with their intended use and at the intended ability level of pupils.  

Validity.—There should be validity in relation to the curriculum and in relation to test responses. The test instruments should have as their objectives

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4William A. McCall, Measurement, p. 49.
5C. W. Odell, Educational Measurement in High School, p. 52.
9Greene, Jorgensen, and Gerberich, op. cit., p. 54.
the objectives of the curriculum, and should actually measure the objectives they are set up to measure.\textsuperscript{10}

Reliability.--Reliability is synonymous with accuracy. The reliability of a test may be defined as the degree to which a second application yields scores equivalent to those obtained from the first application.\textsuperscript{11}

Reliability.--A test is said to be reliable when it functions consistently. The reliability of an examination depends upon the efficiency with which a test measures what it does measure. This statement may appear on the surface to conflict with, or to repeat, the criteria of validity. Such is not the case, however. A test may satisfactorily test what it does test without to any effective degree testing what its user attempts to test. It cannot efficiently measure what it attempts to measure unless it efficiently measures whatever it does measure. Then, a test may be reliable without being valid, but it cannot be valid unless it is reliable.\textsuperscript{12}

Adequacy.--Adequacy is the degree to which a test samples sufficiently widely that the resulting scores are representative of total performance in the area measured.\textsuperscript{13}

Objectivity.--Objectivity in a test makes for the elimination of the opinion, bias, or judgement of the person who scores it.\textsuperscript{14}

Reliability.--Improvements in examinations in the way of objectivity, reliability, and general availability were begun by psychologists and scientific students of education in connection with

\textsuperscript{10}V. Edmiston, "Developing Test and Record Forms in the Milwaukee Evaluation Study," \textit{Educational Administration and Supervision}, XXX (June, 1943), 210.

\textsuperscript{11}O'dell, op. cit., p. 58.

\textsuperscript{12}Green, Jorgensen, and Gerberich, op. cit., p. 68.

\textsuperscript{13}Ibid., p. 64.

\textsuperscript{14}Ibid., p. 68.
reading, arithmetic, handwriting, and other subjects of the elementary school.\textsuperscript{15}

**Administrability.**--Tests having few and simple directions are much to be preferred to those containing many and complicated directions. Tests with the directions printed on the tests themselves, with adequate sample exercises to make clear to the pupil the nature of the tasks to be done, are much preferred to those in which directions are explained on supplementary sheets.\textsuperscript{16}

**Administrability.**--The characteristics of a test which make for ease and accuracy in its administration are probably best expressed by the word administrability.\textsuperscript{17}

**Comparability.**--If the tests are standardized the usual methods of establishing comparability are:

1. availability of different forms of the test and
2. availability of adequate norms. Comparability in other forms of informal testing might be established when different class groups are tested over a period of years, even though the test used from time to time may overlap considerably in content.\textsuperscript{18}

**Economy.**--Economy is certainly not one of the major criteria of a good test, but it is a factor which must be given consideration. Real economy in testing will not be achieved by indiscriminate use of cheap tests or testing methods, but it is equally true that the most costly instruments and methods are not necessarily the best. Perhaps the cost of testing should in the long run be computed in terms of the validity of the test per unit of cost.\textsuperscript{19}

**Economy.**--Devices should be economical. The chief idea in considering their economy is that of cost in

\textsuperscript{15}Edward L. Thorndike, *Conference on Examinations*, p. 25.


\textsuperscript{17}Green, Jorgensen, and Gerberich, *op. cit.*, p. 66.

\textsuperscript{18}Ibid., pp. 69-70.

\textsuperscript{19}Ibid., p. 70.
money, time, and energy. This idea, however, must include the consideration of the results that are secured through the use of the devices. A still further point in considering economy is that of the length of time it may be used after it has been well prepared. A device that secures excellent results and that can be used for relative long periods of time is economical, even though its first cost be comparatively high. A very important point in connection with this consideration of economy is that of continuing to employ good devices that are effective and economical.20

Scorability.--Simplified scoring and interpreting where both items and directions are stated clearly, without ambiguity, and with an appropriate and simple vocabulary.21

Scorability.--The results of a test possessing scorability should be obtainable in as simple, rapid, and routine manner as is commensurate with their importance.22

Utility.--A test possesses utility to the degree that it satisfactorily serves a definite need in the situation in which it is used.23

Utility.--Devices should be usable. The main idea in this connection is that they should be of such a character that they can be kept in usable condition without taking too much time and energy in order to keep them ready for use. Another idea of usability is that of the length of time they will last without losing any of their effectiveness.24

While reading and assembling these definitions, statements, and modifications, the writer became aware that

20Wilbur Hubert Nutt, Principles of Teaching High School Pupils, pp. 196-197.
21Edmiston, op. cit., p. 216.
22Green, Jorgensen, and Gerberich, op. cit., p. 69.
23Ibid., p. 71.
24Nutt, op. cit., p. 193.
several things might appear that would affect them and in
certain instances might refute them partially or perhaps
entirely. William Asher found that grammatical knowledge
and composition ability among college students were corre-
lated to an extent represented by a Pearson co-efficient
of 0.57, although grammatical knowledge and the ability
to judge the correctness of sentences gave only a Pearson
co-efficient of 0.23. The Pearson co-efficient of corra-
lation between abilities, as shown by composite grades in
all subjects, was 0.63.25 Asher's findings tend to dis-
prove the theory that the study of grammar results in clear
expression.

A test or technique should accomplish the purpose that
the user has in mind for it to accomplish. If a test or
technique does not accomplish this purpose, it might result
in serious injustice. For example, if a teacher gave a
test on facts in mathematics, the results would probably
not be correct concerning the abilities of the pupil to ap-
ply mathematical facts to a problem at the store. A test
should be used with the group of proper mental maturity and
experience. A test that might be valid for a boy five years
of age would probably become invalid for a boy of sixteen.
It might be pointed out that a test of high validity for

25William Asher, "Does Knowledge of Formal Grammar
Function?", School and Society, XVII (Jan., 1923), 110.
testing public school pupils over certain courses might have a constant decreasing validity in testing college students on those same courses.

The question sometimes arises as to who is the proper person to make a test. Some people believe that the person who is teaching is best suited to make the test. On the other hand, people who make standardized tests are perhaps more familiar with the type of material that should comprise a test of that kind. So there is a difference in the concept of validity which should be applied in the consideration of standardized and informal objective examinations. The difference in the application of the concept of validity is probably the result of the fact that no two teachers teach the same course exactly alike, and that no one teacher teaches a course exactly the same twice during his lifetime. One may readily see that this would be particularly true for courses in contemporary social studies, since new content must be introduced constantly in order to keep abreast of developments. This fact is also true in mathematics, in which the methods used, and classroom problems which arise, may well differ from semester to semester, even though the basic content may be largely unchanged.

In securing information concerning the validity of a measuring device, three methods were often discussed. These methods were from the standpoints of curriculum validity,
statistical validity, and psychological and logical validity. Of the three, "curriculum validity is by far the most important, for in the final analysis any method of test validation must be based on relatively subjective judgement concerning the degree which the test covers the proper ground." Statistical validity, in turn, is probably a more important concept than psychological and logical validity.

Curriculum validity might be explained by saying that it is the attempt to make certain that the test deals with the types of educational outcomes that are to be measured and that it is designed for the proper level of difficulty for the pupils. Teachers sometimes check tests for curriculum validity by use of a book or course of study analysis, but this method is not always desirable. If there is a fallacy in the purposed outcome of the book or course of study analysis, it would be perpetuated for as long as that textbook or course of study analysis were used. Other teachers may check curriculum by means of reports of national and regional committees and by writings of subject specialists. However, if they cure the ill of recurring fallacies, they find no suitable standardized tests available and will have to break virgin soil in the construction of any informal objective test that will meet the requirements. "The teacher himself

26 Green, Jorgensen, and Gerberich, op. cit., p. 54.
is probably the best judge of curriculum validity of the test, since he knows best what material he has taught the class."\textsuperscript{27}

The second type of measuring device is statistical validity. "Methods frequently used involve the determination of the correlation between test scores and such criteria as teachers' marks, ratings of expert judges, scores of other tests designed for the same type of use, and measures of success in certain types of future outcomes."\textsuperscript{28} It might also be said that a test which consistently picks out the pupils who, in the teacher's judgement of specific ability, are superior or inferior, probably does have significant validity.

Some teachers may turn to other known measures to get statistical validity. This might be done in fields in which extensive critical work in test development has already been done. Another test of statistical validity might be accomplished by giving the test to groups that are known to be in different stages of development. It seems impossible to check statistical validity in some things, and in such cases the dissection of the total process is made psychologically and logically in an arm chair sort of way.

\textsuperscript{27}Ibid., p. 57.
\textsuperscript{28}Ibid.
In some cases discrimination must be used in order that validity will not be destroyed. The black board has been used so much in certain subjects that the teacher considers it the most effective device that can be employed. Teachers in high school who deal with mathematics as a means of educating the pupil sometimes think the black board is so essential that they are lost without a large amount of black board space. The result is that the teacher frequently keeps the whole class standing during the entire class period of forty-five or fifty minutes. Standing at the board for long periods of time results in fatigue, and the mental alertness of the pupil is dissipated by bad posture and physical discomfort. A large amount of black board space, therefore, might help the pupil learn mathematics, or it might stand as a detriment to his leaning.

Some tests may differ in comprehensiveness. Some tests require that we measure not only how much a pupil can do, but also how well he can do it. The three main divisions of a pupil's ability might be stated thus: (1) how much or how difficult, (2) how well or how accurate or with what quality, (3) how rapidly. It is desirable to say that tests should be free from irrelevancies. In an arithmetic test, a complex wording of the problems might make the linguistic difficulty of greater consequence than the difficulty of the mathematical processes involved.
It sometimes appears that reliability of a test is general, while validity is specific. The coefficient correlation is frequently used to express the reliability of a test. This method of determining the reliability of a test is by means of correlating scores on two equivalent forms of the same test given successively by the same procedure to the same group of pupils. Sometimes the reliability of a test is established by what is known as the retesting method. Still another method of establishing reliability of a test is known as the chance-half or the split-half procedure.

The adequacy of a test is usually established by sampling. In the same manner by which a cotton buyer determines the quality of lint in a bale of cotton by examining lint taken from several places on the bale, so a person may judge the adequacy of a test by taking samples. One may see that the greater number of samples used, the more nearly the area of learning will be covered.

Objectivity of a test is usually established by having several different persons score the same test—the results should tend to be the same. Objectivity is desirable in a great many tests, but there are some fields, such as attitudes, appreciations, and understandings, which are difficult to score objectively. Therefore, we should not become so concerned with objectivity that we cease to try to test in those fields in which a subjective test might have merit.
Administrability is usually determined by the amount of ease with which the test is given by the administrator and taken by the student. Here again a fallacy may occur, because the maker of the test may become so mindful of administrability that he may produce a test that is poor in quality. It is desirable that clerical workers and others who are not familiar with the content of the test should be able to score it. This is often classified as the economy, as well as the administrability, of the test. Devices used to increase scorability are usually strip keys, cut-out stencils, or a combination of the two.

Purposed outcomes desired from a modern school program are:

1. A wholesome individual in home living.
2. A wholesome individual in leisure living.
3. A wholesome individual in vocational living.
4. A wholesome individual in community living.

Evaluation is, by definition, "the process of gathering and interpreting evidence on the changes in the behavior of students as they progress through school."29 It will probably be necessary to use every type of testing device that can be conceived in making that evaluation. It would be desirable to use standardized objective tests, when possible, but it will probably be necessary to use many other

types, some of which might be objective. In this study of a modern school program, evaluation is more concerned with the desired growth of each of its students than it is with his status in the group, or the status of the group, the school, or the program in relation to some national norm.

Every purpose area of living given in the development of a modern school program stressed the word living. It might be desirable to say that knowledge, plus enough motivation, gives action. Knowledge without action is not intended to satisfy the modern school program. It might also be said that lack of knowledge, plus enough motivation, will give action. The question will then become, "What kind of action?" The actions desired by the modern school program are listed as desired outcomes. These are: (1) a wholesome individual in home living, (2) a wholesome individual in leisure living, (3) a wholesome individual in vocational living, and (4) a wholesome individual in community living.

Quillen and Hanna made a summary of an evaluative program in their book Education for Social Competence. They say:

An evaluative program is, thus, an important part of a school's program because it focuses education upon the objectives; causes the school to clarify them and to its curriculum and classroom procedures so that they may be achieved; it helps in the identification of student needs; it provides for an adequate and objective basis for reporting student progress in many aspects of personality development as well as in achievement; and it secures for the school more intelligent cooperation from parents and the community by giving
parents convincing evidence of the effectiveness of the school program.

In setting up a comprehensive program of evaluation, schools need to analyze their objectives to see what behaviors are involved and to find out what tests and techniques are currently available for gathering evidence on how well their objectives are being attained. It may not be possible for a school inaugurating an evaluative program to appraise all objectives at the beginning of the program. Because such an extensive program at first may not be feasible or even expedient, schools nevertheless are not relieved from the obligation of starting a program which will ultimately provide valid and objective evidence on pupil growth in all the objectives which the school holds to be desirable.30

The principles offered here and the limitations placed upon some of them may not entirely cover the things needed in selecting and constructing evaluative devices, but it is hoped that they will enlarge the conception of principles from which develop evaluative techniques for the purpose of evaluating the modern school program. The ranking of these principles has no significance outside the fact that the first two appear to be mandatory and the others more or less desirable.

The principles and their limitations, as recommended for selecting and constructing evaluative techniques for evaluating a modern school program, are:

1. The principle of validity
   a. Usual definition—Validity is often defined as the property of a measuring instrument to measure what it purports to measure.

30Ibid., p. 360.
b. Cautions recommended for use in a modern school program--Use tests where possible that have established validity, but if those tests are not available, use your best judgement in selecting and constructing valid testing devices in the actual areas of purpose living.

2. The principle of reliability
   a. Usual definition--Reliability of a test is usually defined as one that consistently measures what it does measure.
   b. Caution recommended for use in a modern school system--None; follow as closely as possible, remembering that in measuring action by self appraisal there are no right and wrong answers. A test of this type is reliable insofar as conditions are such that the pupil will express himself honestly.

3. The principle of adequacy
   a. Usual definition--Adequacy is the degree that a test samples sufficiently so that the resulting scores are representative of relative total performance in the area measured.
   b. Caution recommended for use in a modern school program--Make the measuring device sample as
wide as possible, keeping the thought in mind that if a device is too long, fatigue of the pupil will destroy reliability.

4. The principle of objectivity

a. Usual definition--Objectivity in a measuring device tends to eliminate opinion, bias, or judgement of the person who scores it.

b. Caution recommended for use in a modern school program--This is highly desirable for objective type tests, but standardized test makers appear to have made little progress in such fields as attitudes, appreciations, and understandings. In a modern school program these fields would also need to be tested. Some of the tests would be of the non-pencil and non-paper type.

5. The principle of administrability

a. Usual definition--The characteristic of a measuring device which produces ease and accuracy in its administration is best expressed by the word administrability.

b. Caution recommended for use in a modern school program--Administrability is highly desirable, but it can destroy the value of the measuring device if it becomes an end in itself.

6. The principle of scorability
a. Usual definition--Simplified scoring and interpreting where both items and directions are stated clearly, without ambiguity and with an appropriate and simple vocabulary.

b. Caution recommended for use in a modern school program--Highly desirable, but simplified scoring should not interfere with the use of the non-pencil and non-paper type test.

7. The principle of comparability

a. Usual definition--Comparability is probably best expressed by the degree of comparison made between different forms of the same test.

b. Caution recommended for use in a modern school program--Allowances will probably have to be made on some types of subjective tests.

8. The principle of economy

a. Usual definition--Economy in a measuring device is that the device should be as inexpensive as possible, other things being equal, in money, time, and energy.

b. Caution recommended for use in a modern school program--None, since the phrase "other things being equal" takes care of the possibility of becoming too economy-minded.

9. The principle of utility
a. Usual definition—A measuring device possesses utility to the degree that it satisfactorily serves a definite need in the situation in which it is used.

b. Caution recommended for use in a modern school program—None.

Before bringing this list of principles to a close, reasons should be offered for the cautions recommended for principles of evaluative techniques for a modern school program. The writer is of the opinion that most people, faced with the task of selecting or constructing some measuring devices in relation to school programs, will agree that these principles will give good, sound standardized objective tests, and are proper for informal objective testing. The cautions were offered, however, to take care of cases similar to the following situations. A person in the United States knows he should vote. But does he vote? A boy learns in his health and safety class that he should bend the nail over in the plank that is lying around the home. But does he bend the nail over? A measuring device of some type should be developed that would evaluate action of this type. Some of the action would measure nothing, but if a wholesome individual is a desired outcome, something should be done about measuring this kind of action. If it can be evaluated, and is evaluated, then it is possible that our school programs can do something with it.
If it is agreed that evaluation is the process of gathering and interpreting evidence on the changes in the behavior of students as they progress through school, it is the opinion of the writer that we should go a step further and say that this evaluation must be used to make the individual live more wholesomely in his home, in his leisure, in his vocation, and in his community.

Criteria have led to the conclusion that evaluation should be reorganized so as to actually evaluate action in the major purpose areas of living. These were analyzed in Chapter II, and the analysis indicated that the major purpose areas were probably living in the home, living your leisure, living your vocation, and living in the community, as life is lived in a democratic society.
CHAPTER IV

APPLICATION OF PRINCIPLES OF EVALUATIVE TECHNIQUES TO A MODERN SCHOOL PROGRAM

The purpose of this chapter is to take the principles developed in Chapter III and apply them to the modern school program that was developed in Chapter II.

This chapter will apply standardized tests to that part of a modern school program in which they can be used. A pattern dealing with action will then be developed, since at present it seems to get very little attention in the usual academic systems. In developing this pattern, which might be called an action pattern, several tests bordering on this type of thing will be studied. The study of standardized tests will be limited to cases in which they can be used successfully, and their names, a short description, a few examples, and their limitations will be given.

The reason for using standardized tests, whenever possible, in the evaluation of a modern school program is that they have been highly developed and fulfill the principles set forth in Chapter III. If it were possible to evaluate all phases of a modern school program by their use, it would be highly desirable. Such is not the case, however, for standardized tests have tended to do their best jobs in the
subject matter fields. It is true, in all probability, that the modern school program will have much subject matter, but it will be used only as a tool in accomplishing the desired outcomes. These outcomes have been set up in Chapter II as wholesome individual living in the home, wholesome individual living of leisure, wholesome individual living in a vocation, and wholesome individual living in the community.

Paper and pencil tests designed to appraise information, vocabulary, concepts, and generalizations usually include one or more of the following types of items:

1. Discussion or essay
2. True-false
3. Multiple choice
4. Matching
5. Completion or recall
6. Arrangement

Discussion or essay test—This type of test is not standardized, neither can it be classed as highly objective, but it is used to a great degree by a large number of teachers.

Teachers who prefer this type of examination claim that it does not stress memorization and recall of factual information so much as it does organization and thought; that it offers practice in composition and clarity of expression; and that it provides an opportunity for originality and freedom of thought, whereas objective tests are mechanical and impersonal.1

Most of the questions, however, still begin with "identify," "name," "what," "give," and "why" phrases, which in many instances call for factual or memorized answers. Therefore, the actual results of most essay tests could probably have been found by using objective tests.

True-false tests—"True-false tests have been the most widely used of the various types of objective tests, and they are also the least desirable." The greatest asset of true-false tests lies primarily in the wide sampling of information which can be tested in a short time. The careful wording of items makes a good test of this kind as difficult to make as any other. Words such as "all," "every," "always," "never," and "only," which usually make a statement false, and "should," "may," "generally," "often," and "some," which usually make a statement true, should be avoided. The usual method of scoring is number right minus number wrong equals score.

Multiple-choice tests—"The multiple-choice type of item is probably the most valuable and most flexible now in use." The construction of multiple-choice tests calling for judgment and analysis, and not simply for factual information, requires considerable care and thought. In constructing the test it is probably best to distribute the correct answers

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2Ibid., p. 367.
3Ibid., p. 368.
in random order with approximately as many of the first answers correct as the second, the third, the fourth, etc.

Matching tests—"Matching tests are rather easy to construct and are particularly useful in appraising the ability to associate items and see relationships."\(^4\) Matching tests are sometimes grouped and sometimes ungrouped. It is usually better to group the items around one idea. It is seldom wise to have a long list because too much time is consumed in the matching process. Grouping dates together, persons together, and political events together will usually save time and clarify the test.

Completion or recall tests—The completion test consists of a series of statements from which one or more words has been omitted. The student is asked to fill in the blanks with the correct words. "While the recall or completion test is the most reliable of all objective tests, it tends to stress factual information and rote memorization."\(^5\) Scoring is made easier by putting all blanks at either the right side or the left side of the paper.

Arrangement tests—"The arrangement test is useful in the social studies to appraise the ability of students to see continuity or chronology, or rank events according to importance; it is more difficult to construct and score than some of the other objective tests."\(^6\) In a test of this kind, if the student misses one item, he automatically misses two.

\(^4\)Ibid., p. 369. \(^5\)Ibid., p. 371. \(^6\)Ibid.
Tests that are out of the ordinary subject matter fields are sometimes used in evaluation. The different items included under this type of test are:

1. Test for appraising attitudes.
2. Test for appraising appreciations.
3. Test for appraising interests.
4. Inventories for appraising personal and social maturity.
5. Test for appraising critical thinking.
6. Test for appraising work habits and study skills.
7. Other techniques, such as direct observations, personal questionnaire, and check lists.

Tests for appraising attitudes—"Although there may be a discrepancy between the opinion expressed by an individual and his real attitude, measurement of opinion has been found to be one of the most valid indices of social attitudes." The reliability of this kind of test tends to be destroyed if conditions between the person giving the test and the pupils are not just right. The opinion given by the pupil must not be influenced by what the administrator of the test might seem to desire. Several standardized tests have been developed on attitudes. Some of these are: Thurstone Attitude Scales, Wrightstone's Scale of Civic Beliefs, and Progressive Education Association Scale of Beliefs.

7Ibid., p. 377.
Tests for appraising appreciations—Tests for appraising appreciations are probably more difficult to construct than those for appraising attitudes. These tests are usually constructed to appraise the appreciation of literature.

Tests for appraising interests—"It is usually assumed that the types of activities in which an individual engages when he is free to make choices reveal his interests." There are two types of this test—one deals with interest in general of school boys and girls; the other deals with vocational interests. In the vocational interest field there have been a large number of tests developed which claimed to have validity in determining proper vocational fields for the pupil taking the test. The one caution concerning this test is that interest does not show whether or not the pupil has aptitude in the field in which his interests may place him.

Inventories for appraising personal and social maturity—"The objection to most personality inventories is that they seem to pry into an individual's privacy and put him on the defensive. Then, too, many individuals are not capable of objectively appraising their own emotions and personalities." This kind of test seems to have made very little progress, but some good work has been done by the Evaluation Staff of the Eight Year Study in their development of the Index.

8Ibid., p. 379.
9Ibid.
Other works in this field are Bernreuter's Personality Inventory and Kefauver's Hand Guidance Tests and Inventories.

Tests for appraising critical thinking—"The techniques developed by the Evaluation Staff of the Eight Year Study have thus far been the most successful attempt to appraise various aspects of critical thinking."10 Other tests that might be classified in this group are generalization tests and tests of the ability to apply principles of social value in new situations.

Tests for appraising work habits and study skills—One very good way to appraise work habits and study skills is by observation, but paper and pencil tests might in some cases be more economical and more objective. Some of the tests used to appraise these items are the Cooperative Test of Social Studies Abilities, the Iowa Every-Pupil Test of Work-Study Skills, and the Library and Sources of Information Test.

Other techniques—Direct observation, personal question-naire, and check lists should also be considered.

Observations should be made on such class room behavior as tolerance of the ideas of others, cooperation in working with other children on a group project, self direction in attacking a problem and starting to work, and responsibility in fulfilling obligations and completing assumed tasks.11

Personal questionnaires have been used a great deal in acquainting the teacher with the pupil. Check lists have

10 Ibid., p. 381.

11 Ibid., p. 387.
been used to get some idea of what the pupils do, what they read, and what interests they have.

All of the evaluative techniques discussed could probably be used in evaluating a modern school program, since the things they test tend to be the things valuable to the education of youth. There is one other type of test that seems to be absent from the evaluative program. This type is an evaluative device which deals with the actions of pupils after the knowledge has been obtained.

Since the purpose areas of the modern school program are wholesome living in the home, wholesome living in leisure, wholesome living in the vocations, and wholesome living in the community, it seems that some device should be developed that would, in some measure, evaluate action in each of these areas. Gestalt psychology, in which things are learned not in parts but as wholes, makes action of living as much a part of a modern school program as any other item. The theory that things should be learned in connection with their use is another psychological principle that tends to support the evaluation of action. The writer is aware that such a need exists and attempts to make a pattern which he hopes will have some bearing on the above need and which may cause further thought concerning the need for and construction of such a test.

It is necessary to examine available material bordering on this test of action. One such piece of material is How
Democratic Is Your School? Democracy will be practised in each of the four areas of living, but this test centers its questions about the school in such a way that most of them apply to community living. Some questions from this test are given for consideration.

Directions: Check the rectangle that most nearly fits your case.
Symbols: R--Rarely S--Sometimes A--Almost always

1. Do you volunteer your services to help the school or teacher in any way you can?
2. Are study halls quiet and orderly enough for you to study well when no teacher is present?
3. Are students considerate of others during cafeteria period?
4. Do students with cars drive carefully and cautiously as school is being let out?
5. Do students of your school refrain from fights and acts of violence after losing an athletic contest?

This test is devised to evaluate the civic action of the school, and the writer hopes to evaluate action in each of the four areas of living as proposed in the modern school program.

In evaluating one school in relation to another, action of the students is usually taken for granted, provided opportunities for pupil action are developed in the program. An example of evaluation of opportunities for action is given

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13Ibid.
below. This checklist was taken from a battery of checklists prepared by the Cooperative Study of Secondary School Standards for the purpose of evaluation by a visiting committee. This example was given on home rooms, and the committee was to do the checking.

CHECKLIST

1. Administrative functions assigned to home rooms are made a means of learning how to assume and discharge responsibilities effectively.

2. Home rooms afford and encourage opportunity for full discussion and evaluation of various school conditions and problems and seek their improvement or correction.

3. Home rooms encourage self-expression on the part of all their members to the end that creative abilities may be discovered and encouraged.

4. In home room, every member contributes to its activities and shares in its responsibilities.\(^\text{14}\)

It may be seen from this evaluating device that the committee would probably need some help with its checking. This device might help in providing opportunities for action, but it does not measure action itself.

In the appendix of the book written by Quillen and Hanna there is an example of a test called "Critical Thinking" that creates a setting for make-believe action or action of the future. This type of test gives a situation and sets up several courses of action. The individual must decide on the

\(^{14}\)Cooperative Study of Secondary School Standards, Pupil Activity Program, p. 41.
one he thinks should be followed. He must then support his
decisions by picking out reasons from a group that are listed
in the test.

Test on Critical Thinking

The Chinese Student

A Chinese girl student in a large high school was
invited by a white girl friend to accompany her to a
popular skating rink in the city. The Chinese girl,
embarrassed, was forced to decline the invitation since
this place of amusement did not permit Orientals to
enter.

What do you think owners of amusement resorts should
do about admitting Chinese?

Directions: Choose the course (or courses) of
action which you think best and write it on your answer
sheet.

Courses of Action:
A. Chinese should be admitted on the same
   conditions as others.
B. Chinese should be excluded from such
   places.
C. Chinese should be admitted, but should
   be required to occupy a place apart from
   the others, or attend on special Chinese
days or hours.

Directions: Chose the reasons which you would use
for your course (or courses) of action. If you have
chosen more than one course of action, and a reason sup-
ports both, mark it as supporting both.

Reasons:
1. A proprietor has the right to exclude any-
   one he pleases from his property.
2. Practicing race discrimination endangers
   our democracy.
3. Chinese prefer wrestling and fencing to
   skating and dancing.
4. Chinese have played successfully along-
   side members of other races on our high-
   school football teams.
5. Chinese excel in sports, and Americans do
   not like to be outdone by another race.
6. Humiliating a proud race of people will
   cause its members to be less loyal to the
   United States.
7. If any group of people do not like the
   way they are treated here, they should re-
   turn to their own country.
9. Chinese are uniformly well-behaved and non-offensive in public places.
9. Chinese culture and manners are very inferior to American manners and customs.
10. Our theory of democracy requires that we treat all races with consideration, but they must be taught to keep their place.\(^{15}\)

Stratemeyer, in the last chapter of her book, Developing a Curriculum for Modern Living, asks a series of questions concerning democratic values in action. This procedure admits, to a certain extent, that knowledge put into desirable action is the principal thing to be considered. Some of her questions are:

1. Are boys and girls becoming responsible members of the family group as a result of the kind of educational experiences they are having at school?
2. Are children and youth becoming responsible community members—as young adults are they assuming places of leadership and responsibility in various community enterprises such as those carried on by the church, recreational, social, and economic groups?
3. Is each child or youth as he leaves school, whether before the end of high school or after college, able to perform the work which society needs to have performed? Is he competent to pursue further education or take a job suited to his ability?
4. Does each child or youth use his leisure time constructively for himself and his group?\(^{16}\)

Another evaluation device included in the Bulletin of the National Association of Secondary-School Principals makes an attempt to evaluate a school to determine whether or not desirable actions of boys and girls are provided for

\(^{15}\)Quillen and Hanna, op. cit., p. 529.

\(^{16}\)F. B. Stratemeyer, H. L. Foraker, and M. G. McKim, Developing a Curriculum for Modern Living, p. 551.
in the school program. The National Association of Secondary-School Principals has divided the needs of youth into what they term the "ten imperative needs of youth." This evaluation device was listed under the item called "All youth need to understand the significance of the family for individual and society and the conditions conducive to successful family life." It is checked by degrees, five being almost perfect and none not applying to the situation.

A small part of the device is given below:

1. The school makes systematic provisions for boys and girls to work and play together.
2. Wholesome boy and girl friendships are encouraged not only in the classroom but also after school activities.
3. All teachers are alert to seize opportunities to improve pupils' understandings of the responsibilities of family members.
4. All pupils are encouraged to assume actual responsibilities in the home and in the community.

Some of these examples of evaluative techniques tend to evaluate the actions of groups of pupils, and some tend to evaluate the school. The writer, in his attempt to construct an evaluative device, hopes to do the following things:

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18 Ibid.
1. Make a pattern, not a test, showing action of the individual pupil.

2. Fill in the gap that appears to be present between what is taught in school and the desired outcomes of the entire school program.

3. Put into the evaluation of school programs the thing that appears to be missing in order to have that wholeness.

4. Provide a starting point upon which more action-type tests may be constructed.

The pattern which the writer plans to develop is on the teen-age level. The age level is mentioned because the experiences to be checked are those that most teen-agers have encountered, in some cases, many times. This pattern will probably work better for boys than for girls, since most of the experiences are of the "boy type." Provision will be made in the pattern to omit those items which the pupil has not experienced. This pattern is to be the self-appraisal type and will tend to have favorable results since the pupil is permitted to measure himself. If the results of action tests continue to show undesirable results, change in student, change in curriculum, and change in the program of the school may have to be made in order that the knowledge learned may become functional.

The pattern for a proposed test on action with the behavior tool of safety is given below.
**Directions for checking:**  
A - Almost always  
S - Sometimes  
R - Rarely  
N - No experience

**I. The behavior of safety in home living:**

1. Do you pick objects off the floor, such as toys or tools, that might cause a fall?  

2. Do you look to see whether or not the garage door is fastened back when you back out the car?  

3. Do you put old razor blades away?  

4. Do you turn over the plank that has a nail sticking up?  

5. Do you pick up and put in a safe place the carbolic acid bottle that was left on the lavatory in the bath room?  

6. Do you stop the electric fan by slowing down the blades with your fingers?  

7. Do you pick up the glass from a broken bottle left on the porch?  

8. Do you handle scissors and ice picks with due regard to the danger of their sharp points?
9. Do you check gas connections when you smell gas in your home?
10. Do you continue to read when the light becomes poor?

II. The behavior of safety in community living:

1. Do you observe the doctor's quarantine?
2. Do you ride in over-loaded automobiles?
3. Do you observe traffic lights when you are walking?
4. Do you observe traffic lights when you are driving?
5. Do you give proper hand signals when you are driving?
6. Do you drive with care around the school building when school is being dismissed?
7. Do you refrain from driving at excessive speeds?
8. Do you as an individual or as a member of a group have that obstruction (tree or bush) that has been blocking driving vision removed?
9. Do you get in the way of the firemen when they are making a run or fighting a fire?

10. Do you encourage brawls after an athletic contest?

III. The behavior of safety in leisure living:

1. Do you "show off" (dare-devil type) when skating or riding your bike?

2. Do you take great pains to see that your gun is unloaded before displaying it or cleaning it?

3. Do you go immediately to get a tetanus shot when you receive a serious cut?

4. Do you go motor boat riding without a life preserver?

5. Do you obey the instructions of the life guards when you are swimming in the pool?

6. Do you scuffle in the shower room?

7. Do you dive into water that has not been inspected by you as a life guard?

8. Do you see that your camp fire is out before you leave the camp grounds?
9. Do you take undue chances when you are climbing trees?

10. Do you see to it that your gun never points toward your companions while you are hunting?

IV. The behavior of safety in vocational living:

1. Do you determine whether there is enough space when you swing an object such as an axe or hoe?

2. Do you talk or otherwise destroy concentration while you are working around power machinery?

3. Do you attempt to "cool off" very quickly when you are hot from exertion?

4. Do you respect the cutting power of a saw or knife?

5. Do you drive with care the truck or tractor that you are using on the job?

6. Do you respect the power of electricity when a wire is close to water? Or if your work carries you near a wire of high voltage?
7. Do you stop machinery before you tighten a loose nut or before you attempt to remove something that tends to be slowing down the machine?

8. Do you indulge in "horse play" while you are on the job?

9. Do you refrain from using your naked eyes while welding or while watching the welding process?

10. Do you comply with the safety regulations that are suggested for your job?
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The problem of this study, as stated in the introduction, was to determine an evaluative instrument for evaluating a modern school program.

Conclusions

In making an analysis of a modern school program, the writer began by attempting to find out what our society wanted in the way of a modern school program. The conclusion reached in such a case was that society wanted a modern school program based on democratic principles.

Since the modern school program is to serve youth, the question naturally arose as to what youth needed. The needs of youth were analyzed, and the conclusion was reached that all needs, whether direct or indirect, were such that they were the things necessary for the individual to live a wholesome life. An analysis of the areas of living was then made, and the conclusion was drawn that the four purpose areas of living are:

1. Living in the home
   a. Food
   b. Shelter
c. Clothing

d. Interfamily life

2. Living your leisure

3. Living your vocation

4. Living in the community
   a. Local
   b. State
   c. National
   d. World

A diagram was worked out in the form of a wheel, with the individual as the hub. He, consequently, would be the center of living in all these areas. Around this hub the areas aligned themselves, and the conclusion was reached that it was the interaction and integration of all four areas that made the individual live a wholesome life.

An analysis of the evaluative principles of evaluative techniques was made by taking the principles that have been developed by standardized test makers and applying them to all evaluative techniques. The conclusion was reached that these principles were sound, but that it was necessary to add some cautions so that all phases of the modern school program could be evaluated.

In applying the evaluative principles developed in Chapter III to the modern school program that was developed in Chapter II the conclusion was reached that it is best to
use standardized tests whenever possible, if they serve the need. Several needs arose that could scarcely be covered by standardized tests as we now have them. The conclusion was reached that tests should be constructed to meet these conditions. Objective tests would probably serve the purpose better, but, if necessary, subjective tests should be used in order to evaluate the modern school program so that it may more nearly meet the needs of youth.

One outstanding need was the evaluation of action in the modern school program. The conclusion was reached that a pattern for a test should be devised to evaluate action. This pattern was constructed so that a probable field in functional knowledge might be opened. It seems that it would be possible to take other tools of learning and construct tests in the four purpose areas of living so that the action of the knowledge learned might be evaluated. In some such way as this the modern school might be evaluated in knowledge taught, provision for the function of that knowledge, and in determining whether or not action really takes place in the four major purpose areas of living, namely, home living, leisure living, vocational living, and community living.

A summary of the conclusions is given below:

1. A modern school program should be based on democratic principles.
2. A modern school program should serve the needs of youth.

3. All needs of youth are the things necessary for them to live a wholesome life.

4. The purpose areas of living are:
   a. Living in the home
   b. Living your leisure
   c. Living your vocation
   d. Living in the community

5. The interaction and integration of all four purpose areas of living produce a wholesome life.

6. The evaluative principles of standardized test makers must have cautions added in order to evaluate a modern school program.

7. Standardized tests should be used when they serve a need in evaluating a modern school program.

8. Tests should be constructed when necessary, either objective or subjective, in order to evaluate a modern school program fully so that it may more nearly meet the needs of youth.

9. An outstanding need is present for some kind of an evaluative device to test the behavior of action in a modern school program.

10. A pattern for a test on the behavior of action was constructed.
11. Suggested tools by which additional patterns might be constructed.

a. Living in the home
   1. Safety
   2. Democracy
   3. Language
   4. Mathematics
   5. Tolerance

b. Living your leisure
   1. Safety
   2. Democracy
   3. Language
   4. Mathematics
   5. Tolerance

c. Living your vocation
   1. Safety
   2. Democracy
   3. Language
   4. Mathematics
   5. Tolerance

d. Living in the community
   1. Safety
   2. Democracy
   3. Language
   4. Mathematics
   5. Tolerance
Recommendations

It is recommended that the modern school program be re-organized around the needs of youth. Since the needs of youth can be grouped around four purpose areas of living—living in the home, living your leisure, living your vocation, and living in the community—it is recommended that the areas be utilized in making a modern school program.

It is necessary to evaluate the modern school program in order to determine whether or not it is meeting the needs of youth. It is recommended that the evaluative principles, together with the cautions developed on pages fifty through fifty-two, be used in selecting and constructing evaluative devices with which to do that evaluating. It is also recommended that, after evaluation takes place, adjustment be made so that the modern school program can grow in a pattern which more nearly meets the needs of youth.
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