

DOCUMENT RESUME

ED 083 163

SP 006 949

AUTHOR Zimmerman, R. R.; Halbert, T. D.
TITLE Individualization of Instruction: Evaluation--A
Roadblock. Education Monograph No. 5.
INSTITUTION Montana Univ., Missoula. Div. of Educational Research
and Services.
PUB DATE Aug 70
NOTE 20p.

EDRS PRICE MF-\$0.65 HC-\$3.29

DESCRIPTORS Academic Achievement; *Evaluation Criteria;
Evaluation Techniques; *Grading; *Individualized
Instruction; *Learning Characteristics; Student
Evaluation; *Summative Evaluation

ABSTRACT

This monograph questions the use of grading as an evaluation of student performance. The paper emphasizes that grading does not take into consideration some of the factors that affect learning: a) individuality, b) responsibility of the student, c) experience in learning, and d) motivation. Research on the detrimental effects of the present system of grading is briefly reviewed. The criteria that should be served through evaluation are stressed: a) facilitation of self evaluation, learning, and teaching; b) inclusion of educational objectives; c) provision for feedback to questions of curriculum development and educational policy; and d) production of appropriate records. An alternative approach to the current grading system, which includes the above criteria, is presented. The Complete-Incomplete system is discussed: it contains the positive aspects of the pass-fail system without the failure dimension. A 16-item bibliography is included. (For related documents, see SP 006 948, 950-53.) (BRB)

ED 083163

INDIVIDUALIZATION OF INSTRUCTION:
EVALUATION--A ROADBLOCK

by

R. R. Zimmerman and T. D. Halbert

Dr. Robert Zimmerman is Professor of Psychology at the University of Montana and has a keen interest in human development. He taught educational psychology and the psychology of learning at Cornell University of six years prior to coming to the University of Montana. He has an article "Motivating Students for College Teaching," soon to be published in The Journal of Improving College and University Teaching.

Mr. Thomas Halbert was a Research Assistant with the Division of Educational Research and Services at the University of Montana and presently is principal of Bishop Carroll High School in Calgary, Alberta, Canada.

EDUCATION MONOGRAPH NO. 5

August, 1970

Published

by

The Division of Educational Research and Services

School of Education

University of Montana

Missoula, Montana

This publication is the fifth in a series of articles discussing the topic of Individualization of Instruction.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

FILMED FROM BEST AVAILABLE COPY

SP 066 949

FOREWORD

You may have heard recently the phrase, "Now that we have achieved education for all, let us seek education for each." We certainly have nearly achieved education for all, and we have it within our power to achieve education for each, but to do so we must change markedly in the next decade and constantly examine new avenues which seem to offer realistic improvements for the teaching-learning process.

This monograph, and similar ones which will follow, is designed to set forth what is the most enlightened thought in the field. New ideas will be presented with the hope that some implementation will follow.

While we will not be advocating any one specific course or another, we believe it to be necessary to give currency to new and viable solutions to some of the problems that face us in today's complex world. Educators will not find specific recipes to educational problems in this brief paper, but it is hoped that they will find meaningful and useful ideas, directions, and procedures. From this point of view, practicing educators, and others, should find the information contained in the educational monographs of considerable value and assistance. How well we accomplish our purposes will eventually be for our children to witness or censure.

J. Francis Rummel
Dean, School of Education
University of Montana
Missoula, Montana

EVALUATION--A ROADBLOCK TO THE INDIVIDUALIZED PROGRAM

As with all fields of human endeavor in contemporary society, education is changing faster today than it has at any time in human history. This has been the era of innovation in the organization of the schools and in the methods of delivering the material or information to the students. Individualized instruction burst on the scene a decade ago and such approaches as team teaching, independent study, flexible scheduling, personalized instruction and the continuous-progress school provide the teacher and the student with the potential to fit or place the appropriate material to be learned to the learner at the appropriate time. However, one of the persistent problems that plagues educational systems is how to evaluate the performance of the student in order to place him at the right place at the right time. The natural response is to select pre-determined percent scores which will be accepted on some performance measure such as a standardized test, or use quantitative scores made up from a series of "grades" computed by the teacher. No matter what method we develop to deliver the essential material of the educational process to the consumer (the students), the where and when of delivery is closely tied to how we evaluate the performance of the consumer.

The method of evaluating student progress or performance has remained relatively static for many years. There have been some modifications with the introduction of standardized tests and the establishment of norms of performance on certain tests, but whether we use the old-fashioned method of some composite mark computed by the classroom teacher or the score on a particular standardized test, the student ultimately passes or fails at

some point and is either permitted to go ahead to the next class or repeat the class he has failed.

The response of the educational community to the passing and failing system, even if there are degrees of passing (A - D and F as a failure) is fairly well ingrained in the American Culture. Some must pass and some must fail. This philosophy goes back to the Jeffersonian approach to education. This point of view emphasizes that there is in fact a natural selection of education elite. Teachers often feel that the natural selection takes place through the evaluation system in America. The selection by marks for an intellectual or productive elite may be very misleading. In fact, it can be demonstrated that there is very little correlation between grades in school and other measures of successful performance. However, the general philosophy usually follows the form: we assume that intelligence is correlated with grades in school and that grades in school are correlated with some other aspect of culture. We assume that intelligence is a complex human trait that is normally distributed in the population. Since the intelligence is a normally distributed biological trait, and since it is a determiner of grades, they too should be normally distributed. Ergo, there should be so many A's (10%), so many B's (20%), so many C's (40%), so many D's (20%), and, naturally, F's (10%). Someone must fail.

Let us emphasize that the tradition of evaluation and the role that it plays is basically a U-shaped function skewed to the right. Early, say at the kindergarten and nursery school level, behavior criteria are carefully considered and very few people fail. As we

continue up the educational ladder the role of evaluation becomes more important. Good marks in the later years of grammar school usually mean good marks in the pre-high school years. Good high school marks are the key to getting into the college of your choice and top college marks are critical to getting into your chosen graduate school. When you finally get to graduate school, you may find that marks are important the first year or so but as the dissertation, preliminary examinations and comprehensive examinations approach, the role of grades takes a slightly less critical role. However, we have recently discovered that with the glut of Ph. D.'s on the market, some employers are using graduate grades as one of their selection criteria. We are well aware of the fact that at the lower level behavior criteria which result from close personal contact with the child and at the higher level where there is close personal contact between the student and the major professor, grades are not critical. In other words, grades, when used at these levels, usually are the result of close personal contact and a critical evaluation of behavior criteria. In the middle, grades are a substitute for this personal teacher function. Are grades only for evaluating students? We think not. In fact, it would appear to us that the tradition of evaluation closely ties to the teacher's own ego structure and ego support.

Thus, as a substitute for his personal evaluation as the result of close contact, the teacher must give a mark. What does this grade reflect? For some students it will reflect the fact that the teacher has had close personal contact, for others it will reflect the evaluation he had as he entered from the preceding grade, for others it will

reflect that the teacher does not adjust well to this type of student. It may also reflect the fact that some students do not adjust well to this type of teacher. We are sure that in the lower grades teachers are very concerned with students who do not pass, or do not meet the criteria set for passing. But as we approach the junior high, high school and college level the concept of some must fail grows strong. In fact, how does the teacher react if everyone passes? What does the teacher say to him or herself if everyone gets 100% on an examination? Is the response one of contentment with a successful job done, or is the teacher disturbed that the course or test or program may have been too easy? It is our contention that the teacher's response is to a great extent determined by the administration's response. What would the administration's response be to a teacher that gave all A's, or never failed anyone (there are such teachers, but they are rare). The administration and the teacher demonstrate to the public that they are doing their job by failing a certain portion of the student body. The portion selected to fail usually remains fairly constant but probably goes up and down with the economic and social demands of the culture. Society (regents, school boards and parents) will not tolerate too many failures, but it demands some. At the college level, of course, one of the important functions of failing students is to make room for the next class. The teacher, administration and school boards attribute the distribution of grades, including failure, to the natural process of human learning and abilities rather than to the arbitrariness and structured tradition of the evaluation system.

The assumption that there must always be grades and failures is being challenged in many quarters. However, there is some evidence to indicate that giving a student a failing grade does not improve his performance in future tasks of a similar nature unless specific remedial or corrective action is taken. In other words, the punishment of failure does not alter the response to the school work as such unless some alternative forms of responding are offered to the student. He probably failed because he did not know what to do (did not know the material) and did not know the steps to achieve this response mode. Repeating of the same sequence (repeating a class) would alter the situation very little and would probably produce a variety of undesirable responses.

In the article "American Testing Hypocrisy,"¹ it is stated that the marking or grading system exists for two purposes: (1) because man has a drive to compete, and (2) man has a desire to seek simple answers to complex questions.

The drive to compete is often linked to the need to achieve and the overall Western thinking of the survival of the fittest. Furthermore, our education for education's sake and learning just to learn emphasizes the Western or Protestant ethic that places great good in working hard just to work hard, and in America this has been closely associated with material gain. This ethic has done much to develop America into one of the most dominant positions in history.

¹"American Testing Hypocrisy," Educational Leadership, April, 1969.

However, we must question whether a value that has been worthwhile in the past still holds meaning in our present society. It has been suggested that education should be internally motivated, in other words, the child or the student should learn to love education for the sake of learning. If the drive to compete continues to exist in our schools, this objective can never be realized since students will constantly be competing with one another for better grades. It is rather redundant, in a humanitarian sense, that it is better for Joe or Jack to fail, in a given class, because it allows Freddie to pass. If competition for grades is removed, it will definitely force educators to search for a more meaningful approach to student learning than simply using threat. Further, it will probably provide more worthwhile and enjoyable learning for students.

The second point referred to is the desire of men to seek simple answers to complex questions. The individual in education is much too important to allow simple solutions to take precedence over complex ones. The success of a student, or the degree to which he develops which incidently, should be a major purpose of education, is dependent upon a large number of factors. Predominant among these, which has been pointed out by many sociologists, is the socio-economic background of the student. In any common class of students, the social-economic status of the parent is as good a prognosticator as any particular test, since students from upper social-economic backgrounds constantly do better than their classmates on academic examinations. Another important point to consider is that students tend to support the

expectations of the teacher and the grades they receive. Thus, if a student has been a D student for several years he is more likely to perform at this level and show little, if any, improvement. Skinner² has shown that positive reinforcement will also improve performance and that negative reinforcement tends to "turn kids off" and leads to poor performance.

Thus failure may in fact reduce or in some cases eliminate the drive to compete. The teacher or the system may instill in the student the failure syndrome, or the D syndrome whereby the student expects to receive failing grades and thus does not compete. The traditional system may have been very effective with a portion of the population in the past. But how will it work with the new population of students coming to school? How does it work in the ghetto school, with the hippie? The student who is turned off to the puritan ethic is going to be turned off by our traditional system.

The need for a simple answer for a complex problem is a need of the teacher, administration and parents. The average teacher, administrator and parent want a one-word answer to how his child is doing. Imagine a year's work all summed up in one number or letter. That is efficiency, but is it adequate? It may meet the needs of the complex society we are in, since these numbers can be placed in a computer. But what about the student? Is one grade a sufficient description of his effort?

²Skinner, B. F., The Technology of Teaching. (New York: Meredith Corporation, 1968).

Education is often defined as the act of learning. Therefore, it is important to look at some of the specific factors that affect the nature of learning in the classroom. All these factors tend to indicate that grading does not help this learning process. First, we definitely know that children differ in the rate of learning and that they also differ in the way they learn different things. This being the case, any set standards for a group, as is done in a particular subject or grade, are probably going to be inappropriate for a particular individual. Since grades are based on a norm for a particular group, there is no accounting then for the differing rates at which the individual students in a particular class learn.

Second, learning is an act or process where students experience the items that they learn. It is an ongoing, continuous thing that occurs throughout the life of any person. Since it is a process, it appears to be rather redundant that the measuring of students by grades is based on a product rather than on a process. Since it is a process, it is something that grades, such as A, B, C, etc., cannot evaluate efficiently.

Third, learning is an individual thing and an individual responsibility. The teacher can serve as a motivator, but it is difficult, if not impossible, to force students to learn. The fact that it is such an individual function indicates that it would be far more beneficial to assess an individual's progress against his individual ability rather than grading the student by group norms. A number of factors such as individual purposes, social maturity,

9

intelligence, emotions, and physical conditions affect a learner within a learning situation. This being the case, it is contended that these items must be included in the evaluation of any particular student. Grades do not do this. They fail to take into account the many conditions that affect the learning situation.

Fourth, trial and error is an essential part of the learning process. Grades again are detrimental to this process since the student is punished for his errors rather than the attempt to learn. He becomes so afraid of committing an error that the advantages and learning experiences that can be gained from the correction and discussion of errors is not realized.

Fifth, possibly the greatest criticism of grades is that it forces the learning situation to be teacher-centered. The teacher is extremely dominant about what the student learns since, in a sense, he has the student's life or death in his hands.

We contend that there are five basic factors necessary if the student is to be fully motivated. These are:

1. Sharing in the management of the learning experience.
2. Establishing a purposeful goal to guide his learning activity.
3. Freedom to create his own organization of material to achieve his goal.
4. Seeing the value and usefulness in acquiring generalizations, concepts, knowledge, skills, appreciations, and attitudes.
5. Applying and relating the knowledge gained to relevant situations.

As long as the present system of evaluation is used within the classroom, these points cannot be realized because the learning experiences become a game of trying to satisfy the teacher and receiving pass marks in a given subject area.

In concluding the arguments against the use of grades within a classroom, a brief review of some of the research will suffice to validate our argument.

1. Grades tend to be detrimental to the educative process since the instructors become concerned with marks rather than the individual welfare of the student. The education of the youngsters of today is definitely shifting to the emphasis on the individuality of a given person. As long as instructors are using marks, in their present form, and show that there is a concern for these marks, they will not be able to pay attention or give adequate attention to the individual needs of a particular student.
2. Grades have little, if any, effect on the future success potential of any particular student. Since grades do not help indicate an individual's future successful potential, it is necessary to raise the question of whether or not grades serve any useful purpose rather than a simple ranking arrangement within a particular class.
3. There is strong evidence that failing a course does not improve student performance. If education is based on the desire to help individual students, and at the same time,

failing a course does not assist in this area, then it would appear to be rather illogical to be using grades or marks at all.

4. "A" students worry about grades more than students lower on the "totem pole". This supports the previous points mentioned that the grade becomes the important thing, rather than what is learned. Also, in reference to this point, the grades often lead to a persecution mania for a grade point average.
5. Accomplishments are determined by ability, motivation, and knowledge, and only slightly by characteristics of teachers and schools. Tests or marks may measure knowledge, but they fail to measure ability and motivation, and in fact, tend to have a detrimental affect on these areas. Related to this point, is the problem of subjectivity. Whether a student is a C or B student, or a B or A student, is usually based more on subjective rather than objective criteria. Since the problem of subjectivity is nearly impossible to remove, it is highly questionable whether we should grade students by a method that has a profound bearing on a student's attitude and his resultant behavior.
6. Students who are given poor marks try harder for the marks they receive than their counterpart who received higher grades.³ This, in itself, would appear to be enough evidence

³"American Testing Hypocrisy," op.cit., and Hillson, Maurie Ed., Change and Innovation in the Elementary School Organization, (USA: Holt, Rinehart, and Winston, Inc., 1965).

to ban the use of marks, within a subject area, for grading purposes. Effort is extremely important if one is to measure future success or future potential and it would appear, even in relation to the Protestant Ethic, to be rather idiosyncractic that students who work less receive better rewards than students who work hard.

7. Finally, the research data points out that no achievement difference is noticeable between graded and ungraded students. This being the case, it is hard to support the use of grades in any way, shape, or form, because of the many negative aspects that influence the learning situation.⁴

This paper does not de-emphasize or criticize the use and the need for evaluation. Rather, it indicates that the present use of grades does not effectively evaluate the criteria that is to be satisfied in the educative process. The criteria that should be served by evaluation are as follows:

1. Evaluation should facilitate self-evaluation.
2. Evaluation should include all educational objectives.
3. Evaluation should facilitate learning and teaching.
4. Evaluation should provide feed-back to questions of curriculum development and educational policy.
5. Evaluation should produce appropriate records.

⁴Roberts, D. M. "Measurements of Academic Learning," The Educational Forum, January, 1969.

The progress of the student psychologically, as a receiver of the rewards and punishments of the educational system (reinforcement programs) is also determined by the evaluative system (usually grading process). It is our contention that grading with its emphasis on marks does not satisfy good evaluation criteria. Thus, we would like to offer an alternative view to grading that does not have the negative affects of the present A, B, C, D, F structure. Further, this model will allow the teacher to use tests for evaluation criteria rather than to put a student in a particular rank within a class.

A number of articles have been written on the pass-fail motif of grading. In fact, many institutes are presently adopting this practice. Although it is a step forward in the grading dilemma, it is the contention of this article that it is not enough, since it still does not remove the stigma of failure. The model proposed may be defined as the Complete-Incomplete system of grading. It is contended that this structure will accomplish the same positive aspects as the pass-fail system but, more important, will remove the failure dimension. The Complete-Incomplete system of grading is as follows:

1. Complete - A student receives credit for a course when he has satisfied the requirements of a particular set of behavioral objectives that are outlined for the subject area. The behavioral objectives and behavioral requirements should be set out in advance and the student completes the subject when he has satisfied the stated requirements. The course should be open-ended so that students may help set their own pace toward the completion of the course objectives.

2. Incomplete - The concept of Incomplete cannot be viewed in terms of present grading practices. The term refers only to students who have not satisfied the objectives of a particular program of studies. No mark is entered on a student's transcript. The course is considered to be Incomplete until such time as the student satisfies the requirements for completing the course. Terms such as withdrew, fail, etc., are removed. The student receives a "C" (Complete) if he has completed the course requirements. Otherwise there is no formal record of the student having participated. Students who are Incomplete may meet with the course instructor to decide what is necessary to receive a "C". If the student is not interested in obtaining a "C", no further action is required. Students are also permitted to challenge a course for credits when they feel they are competent in that subject area.

We would like to review three major factors that have a profound impact on present education and the role of the Complete-Incomplete system of grading.

1. Failure, in our society, is a stigma that tends to classify individuals as second-rate citizens. The use of failure within education tends to perpetuate this classification. Further, the threat of failure places the student in a position where the major goal becomes an emphasis on "beating

the system." The student is forced to compete against either the system or other students.

Competition has both negative and positive consequences within our society. If education is to ever become intrinsically motivated, then competition for grades has no place in education because of its many negative aspects. Society does not have to worry about students lacking experience in competition since there are many other areas beside formal education where the student can learn to compete.

2. People involved in education are well aware of the changing society in which we find ourselves. This society is producing occupations about which educators and students have little knowledge. At the same time, many of the courses are basically the same ones that were present over 20 years ago, and the evaluation of these courses occurs in the same manner. The validity of this approach to education for the future should be questioned. Since society is changing at a very rapid pace, it is logical to assume that courses and evaluation should change as well.
3. Another point is the knowledge explosion. The question is raised: Is it possible to establish a pre-set curriculum that will prove beneficial to all students? This is deemed highly unlikely. Students today are motivated in many directions and a set curriculum along with a desire to beat the examination are probably two of the best ways of "turning

off" our youngsters. An open curriculum is necessary to meet the demands of both students and society. If an open curriculum is established, then grading becomes meaningless since comparisons are redundant. In this way, students can at least be partially prepared for our future society and motivated toward a continuing education.

The rationale for a Complete-Incomplete system of grading is based on the belief that the prime function of education is to facilitate learning. This position demands that the endeavors of the teacher must be directed toward positive improvement rather than toward leaving any student with the negative idea that he is a failure. As pointed out earlier, since there is no significant correlation between student grades and future performance, and due to the subjective nature of grading, it is difficult to accept grades as being of any great significance to the educational program.

Examinations, instead of being used for grading, should be used as one of the many devices that help teachers recognize the weaknesses of a particular individual as well as their own teaching, in order that the student can be strengthened in areas where he is experiencing difficulties. If examinations were used in this manner, it might be more useful to give them at the beginning of a term as opposed to the end.

Another point open to question is the objectivity of testing. Evidence indicates that examinations are not objective. The very content of the exam is subjective evaluation of the examiner as to

what the student needs to know; for example, in history, the historical incidents to be learned is a decision that often rests with the teacher. If external evaluation is valid, then students would probably not feel that their studies have little relationship to their own desires and ideals or to the major problems in our society. However, this is not the case.

Some educators forget that the student is the most important element in the educative process. Not only must the curriculum be relevant but, further, the student has the right to attempt courses and not have the stigma of failure attached if he finds the courses irrelevant. If students are expected to "search for truth and meaning," it is imperative that they be given the freedom to do so. The present grading systems across the nation do a great deal of damage to students who are trying to find a meaningful and relevant education. We believe that the use of a Complete or Incomplete system can do away with a significant part of the present problems education is facing and will assist in the maximum development of innovations such as individualization, continuous progress, etc.

BIBLIOGRAPHY

1. "American Testing Hypocrisy," Educational Leadership, April, 1969.
2. Brown, B. Frank. The Nongraded High School, (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963).
3. Charters, W. W. Jr. and Gage, N. L., editors. Readings in the Social Psychology of Education, (Allyn and Bacon, Inc., Boston, 1963).
4. Clark, Cecil. "Competition for Grades and Graduate Student Performance," Journal of Educational Research, Vol. 62, No. 8, April, 1969, p. 351.
5. DeNevi, Don. "Frank Lloyd Wright on College Teaching," Improving College Teaching, XV (Winter, 1967), pp. 48-49.
6. Elton, L. R. B. "Assessment of Students," University Quarterly, June, 1968.
7. Goodlad, John I. and Robert H. Anderson, The Non-graded Elementary School, Revised Edition, (New York: Harcourt, Brace and World, Inc., 1963).
8. Halbert, Thomas D. "The Finals - Gold Help Us!" The Alberta Teachers' Association Magazine, November-December, 1969.
9. Hillson, Maurie Ed. Change and Innovation in Elementary School Organization, (USA: Holt, Rinehart and Winston, Inc., 1965).
10. Hoyt, Donald P. "College Grades and Adult Accomplishment," The Educational Record, Winter, 1966, pp. 70-75.
11. Jerome, Judson. "The American Academy, 1970", Change, September-October, 1969, pp. 10-47, (New York: Science and University Affairs).
12. "Life and Death Grades," Time Magazine, March, 1966.
13. Roberts, D. M. "Measurements of Academic Learning," The Educational Forum, January, 1969.
14. Skinner, B. F. The Technology of Teaching, (New York: Meredith Corporation, 1968).
15. Snoben, Edward Joseph, Jr. "Student Stress and the College Experience," Published as a booklet by the National Student Association, Washington, D.C., 1966.
16. Wolf, Robert Paul. "The Ideal of the University," Change, September-October, 1969, pp. 48-72.