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## The Color Achievement Program as a Method of Marking in the Physical Education Class at Logan Junior High School

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THE COLOR ACHIEVEMENT PROGRAM AS A METHOD OF  
MARKING IN THE PHYSICAL EDUCATION CLASS  
AT LOGAN JUNIOR HIGH SCHOOL

by

Richard Sackett

Report No. 2 submitted in partial fulfillment  
of the requirements for the degree

of

MASTER OF SCIENCE

in

Physical Education

Plan B

Approved:

UTAH STATE UNIVERSITY  
Logan, Utah

1967

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## INTRODUCTION

Marks offer a way of satisfying the urge to excel and are, therefore, considered to be extremely important to many educators. Other educators believe that the quest for commendable marks tends to distract attention from the true goal, and thus becomes an impediment to learning. Regardless of the conflicting attitudes, educators should establish a marking system which reflects awareness of the best grading principles and represents a wise selection of determining basic factors. Marks should never be permitted to become the all--important goal, and educators cannot expect a marking system to overcome uninspired teaching. The mark should reflect the worth of the person to whom it is assigned.

Marks should be awarded on the basis of successful accomplishment according to the objectives of the physical education class. Many of the objectives tend to lend themselves to objective evaluation. However, many important objectives of physical education cannot be measured by standard tests, and the physical educator must rely on his subjective judgment.

The awarding of marks in physical education should conform to the policy and procedures established for the school as a whole. It is customary to award marks in physical education in accordance to some combination of achievement, effort, general attitude, costume, attendance,

and punctuality.

### Statement of the Problem

The purpose of this investigation is to study the policies used in grading students in the physical education class and the use of a color achievement goal as a method of marking the physical education class. The source of information will be written literature from authors in the field of physical education and the color achievement goal used at the Logan Junior High School.

## REVIEW OF LITERATURE

### The Purpose of a Marking System

The marking policy and the reporting system should indicate the students achievement in relation to established objectives in the physical education class. Marks represent an evaluation of a student's success in school. This is the school's way of letting the student and the parent know how the student is progressing in school (8). The marking policy can serve students, parents, and teachers as a guide for future development and action. The marking system should be one that students, parents, and teachers can easily understand (1, 8). A reliable marking system can assist the teacher in stimulating achievement, preventing failure, rewarding outstanding performance, and for evaluating teacher performance. Marks are also valuable in letting the parents know how the student is progressing in the physical education class, and if the student is not progressing satisfactorily the mark should furnish enough information, so home guidance may help overcome the difficulties. School administrators use marks as a symbol of student progress, instructional results, as a basis for promotion, and for educational guidance purposes. Marks should inform the student how nearly he met the class standards (2, 9). Bookwalter states:

Marks should serve the pupil by informing him how closely he is conforming to standards performance both quantitatively and qualitatively, and as an incentive to further or continued effort. Inaccurate, distorted marks given at the end of a marking period



frequently destroy the coveted values of incentives to effort, or interest, and negate all the results previously attained in pupil attitudes. (2, p. 18)

These are but a few of the reasons that it is essential that marks be accurate and self-explanatory.

It is debatable whether marks are valuable as an incentive in the physical education class. In fact there is some question as to whether marks should be given in physical education at all (4). Oberteuffer gives the following reasons why marks should be given:

1. Interest is stimulated.
2. Group standing is determined.
3. Student strengths and weaknesses are pointed out.
4. Marks help the teacher evaluate his teaching.
5. Grades make physical education consistent with other educational medias. (16, p. 42)

Oberteuffer also lists reasons why marks should not be given in the physical education class:

1. There is no common agreement to what criteria should be given the physical education mark.
2. Time can be better spent on learning concentration.
3. Physical education is involved with expressions, and it is difficult to indicate a student's achievement with a single letter mark.
4. The objective of physical education are too numerous for a single grade to be a fair evaluation of the student's achievement. (16, p. 48)

It is contended by most educators that marks should be given in the physical education class as in any other school subject (15). Bookwalter (2, p. 17) believes that "if other subjects are marked upon a definite scale, then physical education must be likewise evaluated. If not, parents and children as well as fellow teachers, get the idea that physical

education has no objectives and no standards."

Educators need to remember that the emphasis in physical education is placed on interrelationships of physical and mental abilities and that physical education is not merely education of the physical but education through the physical (12).

May (12) gives eight reasons why physical education should be graded the same as other academic areas such as English or history, and believes physical education grades should be used in computing the cumulative scholastic averages of students. The eight reasons are:

1. Programs which are treated in a different manner will be given an inferior status.

2. Morale of physical education faculty members would be deflated through the use of different type of marking system.

3. If physical education grades are not used in determining scholastic averages the students may not be motivated to excel in their physical education classes.

4. The importance of health and physical fitness to success in life requires greater stress, not less be placed on the contributions of physical education.

5. People will have more leisure time in the years to come. Any policy which would tend to discredit physical education would affect proper preparation of students for the kind of lives they must live.

6. There is a positive correlation that high mental ability and superior physical ability are related.

7. Scholastic standing is a major consideration in the choice of a person for a job, but after a person is selected for the job his future depends a great deal on his personal and social qualities. One of the major objectives of physical education is the development of personal and social qualities.

8. Grading in the physical education class is not on physical ability alone, one may excel in knowledge of the game, rules, and by the effective use of strategy. (12, p. 49)

### Meeting the Objectives

Because of the importance placed on student marks it is important that an accurate system be used in determining what these marks shall be. It is essential that a marking system have a solid basis which is fair, accurate, and meaningful to both students and parents (2, 9).

Marks should be awarded on fulfillment of all the physical education objectives not just one or two. Marks must be valid and reliable if they are to be meaningful, wherever possible marks should be objective, and to obtain these qualities it is evident that marks must be assigned according to a definite system and according to definite standards (4, 6, 9, 15).

Class objectives are of little value if educators ignore the objectives when teachers appraise the progress of the students in terms of their abilities and status. Moriarty (15) concludes that a combination of objective measurements such as quantitative and qualitative techniques and expert observation, one supplementing the other, is the best technique for marking students.

### Marking Criteria

A variety of marking systems have been devised. Marks can be determined by an absolute method based solely on achievement or on a relative basis which is achievement in reference to potential. It is the responsibility of the physical education teacher to set up a practical and

valid method of evaluation which will meet local needs and appraise achievement on the basis of educational objectives. There are many arguments for both methods. Bookwalter (2) and McCloy (13) agree that the relative basis is best. Jenson (9) recommends that the particular school and teacher needs to decide which method will meet their objectives best.

All marking systems should take on a positive approach rather than the negative approach. At the start of each teaching unit the teacher should define the possibilities of achievement, and select the measurable elements for the evaluation procedures. Marks given only at the end of the semester lose much of their educational value and become only records for the teacher and administrator. On the other hand, students are only too easily led to work for marks rather than for the educational values of the course; teachers need to test for more than just a marking purpose. (2, 6, 15). Burley (3) believes that giving tests not only helps determine student marks, but also enables the teacher to better aid the student, by determining what the student already knows, what he has learned, and for motivating learning.

The objectives of the physical education class should determine what criteria constitutes an A, B, or C grade in physical education. Crowell and Schwehn propose the following criteria for marking in the physical education classes:

1. A marking system should report student progress, be informative, carry specific suggestions for improvement, and serve as an incentive for greater effort on the part of the student.

2. The mark should reflect development in the direction of several important educational outcomes and not merely academic progress.

3. The marking system should tell not only what the student has done to the subject matter but what the subject matter has done to the student.

4. It should represent clear-cut objectives to students, parents, and teachers so that students may learn more of permanent value through their activities because the objectives are clear and the student knows that progress toward their achievement is being evaluated. (4, p. 95)

Crowell and Schwehn (4) believe that unless these four criteria for marking the physical education class can be applied it would be better to give no mark at all in physical education because of the possible psychological damage in an area of education. "Students are not merely learners of mathematics, swimming, social studies, and the like but personalities of which we are the guardians and development supervisors (4, p. 62)

Jensen has derived a seven-point criteria for useful marks in the physical education program.

1. Marks must be valid; they must truly represent student achievement.

2. Marks must be highly reliable. They must represent objectives of the class.

3. Marks must be objective whenever possible.

4. Definite standards must be adopted on which to assign marks. The standard should not differ from student to student or from quarter to quarter.

5. Marks must be capable of clear interpretation. What does a A grade represent; what does a B grade represent?

6. Economy of time and effort must be in a marking system.

7. Marks should be timely; not just at the end of the semester. (9, p. 97)

A marking system should motivate self-discipline and self-management

as well as progress, also both the marking policy and the reporting system should be subject to continuous study and revision.

### Evaluating Physical Education Marks

Many physical educators determine whether the elements in a marking system have been properly weighted by the "normality of the distribution" of the final marks. It is generally accepted that the tabulation of all the marks in a department should reveal a normal distribution of A, B, C, D, and F (2). This is true of the physical education department as a whole, but does not hold true for individual physical education classes. Table 1 lists the percentages in a normal distribution.

Table 1. Normality of the distribution

Grade	Distribution
A	7
B	24
C	38
D	24
F	7

Source: Bookwalter, Karl M. Marking in physical education. *Journal of Health and Physical Education* 7:16-19, January 1936.

Davis and Wallis (5) investigated grading criteria and found that in most instances grades are determined by (a) group comparison,

(b) individual improvement, (c) individual enthusiasm, and (d) attendance. It was found that enthusiasm is a poor criteria for grading because of:

1. Individuals vary in their appearance of enthusiasm.
2. Some individuals are more restrained than others.
3. Out of school influences affect enthusiasm.
4. Peer grouping influences enthusiasm. (5, p. 186)

Moriarty (15) states there are four prime factors that should be included in all marking systems: (a) achievement, (b) potential, (c) attitudes, and (d) knowledge.

Many educators believe attendance is a debatable factor in marking students (13). However, Bookwalter (2) contends that attendance is of "vital importance" because physical education is an activity subject and there is very little to gain unless the student can participate actively. In a study of absences in high school and junior high school physical education classes a system was derived for assigning marks for class attendance. Table 2 indicates a system for assigning marks according to class attendance.

If the usual marking system of A, B, C, D, or F is used, a system for translating numerical values into letter marks must be employed if different values are assigned.

An example of a marking system which allows for the different components that make up the final mark can be found in Table 3. The components are weighed in terms of multiples of the unit 4, 3, 2, 1, 0 for A, B, C, D, F respectively.

Table 2. A system for assigning marks for class attendance

Days absent	Mark
From 0 to 1 day absent	A
From 1 to 2 days absent	B
From 3 to 5 days absent	C
From 6 to 9 days absent	D
From 10 or more days absent	F

Three tardys shall constitute one absence.

Unprepared days shall count as an absence.

Absences may be made up.

Source: Bookwalter, Karl M. Marking in physical education. *Journal of Health and Physical Education* 7:16-19, January 1936.

Table 3. Performance values of various grading criteria

Factor	A	B	C	D	F	Test
Attendance	16	12	8	4	0	Once
Test of knowledge	4	3	2	1	0	3 times
Personal hygiene	4	3	2	1	0	3 times
Test class activities	8	6	4	2	0	Once
Physical fitness	12	9	6	3	0	Once
Posture	4	3	2	1	0	3 times
Teacher estimates	8	6	4	2	0	3 times
Fees	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>	Once
Total points possible	100	75	50	25	0	

Student points: 86 to 100, A; 72 to 85, B; 55 to 71, C; 30 to 54, D; and 29 and below, F.

Source: Crowell, Charles C. and Hilda M. Schwehn. *Modern Principles and Methods in High School Physical Education*. Allyn and Dacon Inc., Boston, 1958.



It seems valid to include personal hygiene as a part of the physical education mark for approximately one-third of the time used for physical education is devoted to dressing and showering.

One other type of marking system which takes into account different components is found in Table 4.

Table 4. A four factor marking system

Number	Component factor	Weighings		
1	Skill performance	2		
2	Knowledge	1		
3	Attitude	1		
4	Fitness	2		
	<u>Component factor</u>	<u>Grade</u>	<u>Weighings</u>	<u>Total</u>
	Number 1	5	2	10
	Number 2	3	1	3
	Number 3	4	1	4
	Number 4	4	2	<u>8</u>
				25 = 4.1
				B

Points: Excellent or A = 5 points, Good or B = 4 points, Fair or C = 3 points, Poor or D = 2 points, and Failure or F = 1 point.

Source: Crowell, Charles C. and Hilda M. Schwehn. Modern Principles and Methods in High School Physical Education. Allyn and Dacon Inc., Boston. 1958.

### Final Suggestions

Educators need to help students and the parents of students to realize that the grade is a composite of several desirable outcomes and a complete marking system will meet this objective.

Self-analysis by the student presents an excellent opportunity for general character development and self-realization. Students should be encouraged to rate themselves during their educational experience (1, 22). Bookwalter has developed an outstanding criteria for estimating general character development and citizenship of the student:

An "A" student in physical education:

1. Shows initiative in doing things beneficial to the class.
2. Shows interest in the program and is a leader among the other students.
3. Does not neglect duties or responsibilities.
4. Excels in skills and physical fitness.
5. Is enthusiastic, pleasant, and courteous.
6. Is reliable and trustworthy.
7. Aids the teacher in helping the class.

A "B" student in physical education:

1. Follows directions but does not see to his own direction.
2. Willing to help the class (squad leader).
3. Meets class requirements most of the time.
4. Above average skills and physical fitness.
5. Is courteous and pleasant during class.

A "C" student in physical education:

1. Has average skills and physical fitness.
2. Daydreams occasionally, talks out in class at times.
3. Most of the time is a follower rather than a leader.
4. Must be reminded frequently in meeting requirements.
5. Is thoughtlessly discourteous at times.

A "D" student in physical education:

1. Must be watched at all times; tries to do as little as possible.
2. Is one that doesn't obey squad leader and frequently does not conform to class standards.

3. Will not use what little skill he possesses.
4. Is discourteous and a trouble maker.
5. Is damaging to other students in the class.

An "F" student in physical education:

1. Refuses to participate in class activities.
2. Is dishonest; cannot be trusted.
3. Is disobedient; willfully unruly.
4. Requires constant teacher attention.
5. Creates a confusion that is harmful to the entire class.
6. Exhibits extremely poor skills and physical fitness.
7. Leads weaker students to commit infractions. (2, p.19)

Waglow (22) suggests that some combination of the use of a skill test, written test, physical fitness test, and the teacher's subjective evaluation be used to determine the student's mark in physical education. In an investigation by Johnson (10) in methods and procedures of grading in physical education, it was found that the majority of the schools surveyed used inadequate grading procedures. The physical education teachers in the schools observed do not grade their physical education classes in accordance with the authorities in the field of physical education. Subjective judgment was used too extensively along with class attendance as a method of determining student marks.

The teacher's own attitude toward marking is very important and reflects his professional point of view, because of this the marking system should not involve long hours of clerical or cumbersome bookwork for the physical education teacher and neither should any appreciable amount of time be spent by the student solely for the purpose of marking (1, 15).

Whatever marking criteria you as a physical education teacher decide is best for your school, it should firmly comply to the objectives of

the program, and the marking system should be based on established educational standards (9).

## SURVEY OF SELECTED MARKING POLICIES

If physical educators are to put physical education in the proper prospective in the educational curriculum it cannot become a snap course. Many physical educators are developing marking systems in which proficiency in skills, knowledge of rules, physical fitness, and the proper attitude are combined in arriving at the physical education mark.

Following is a report of how schools in Levelland, Texas; Boulder, Colorado; Schenectady, New York; Yorktown Heights, New York; Phoenix, Arizona; New Albany, Indiana; Tacoma, Washington; Harbor Beach, Michigan; and Eastville, Virginia are marking students in physical education.

### Levelland Junior High School, Levelland, Texas

The administration and the physical education department at Levelland Junior High believes that physical education should have the same status as other subjects in the school and to achieve this physical education marks must be the same as the mark in other subjects. Principal Elkins of Levelland Junior High School states:

It must be assumed that there is as much variation in the physical ability of students in a school as there is in the mental ability, and students grades should reflect this difference in ability. It is doubtful that a student's attitude in any of the academic subjects will affect his grade over 10 points and it shouldn't affect the PE grade by any more than that either. (18, p. 2)

The physical education department developed a marking system where 90 percent of the student's mark was determined by skill, knowledge of rules, and game strategy; and the other 10 percent of the student's mark was based on attendance and attitude. At the end of each marking period a written test and skill test are given. The skill tests are composed of three items. Students are marked in each item of the skill test by quartiles. A student in the first or lowest quartile receives one point, the second quartile receives two points, the third quartile receives three points, and the top or fourth quartile receives four points. A conversion scale (see Table 5) is used by the teacher to determine a percentage grade.

Table 5. Conversion scale to determine percentage grades

<u>Quartile point total</u>	<u>Percentage</u>
12	98
11	95
10	91
9	89
8	85
7	81
6	78
5	75
4	71
3	68

Student mark: 90 to 100, A; 80 to 89, B; 70 to 79, C; 60 to 69, D; and 59 and below, F.

If a student receives a percentage mark of 68 on his skill test which is a "D" mark and a percentage mark of 84 on his written test which is a "B" mark, the student would average out to a percentage mark of 76 which is a "C" mark, and there is still the possible 10 percentage points based on attitude and participation which the student can receive to raise his mark higher (18).

#### Boulder, Colorado

Base Line Junior High School has a merit and demerit system of marking the physical education student. At the start of the marking period each student receives 100 points and has the opportunity to either add points to or lose points from the original 100 points. Each class period students are checked for cleanliness of uniform, showering, tardiness, care of equipment, and class cooperation. If a student is deficient in any area a demerit or a loss of one point is recorded. Each week the number of demerits for each student is computed so the student knows what his grade is each week throughout the quarter.

Skill tests and knowledge tests are given twice each marking period. At the beginning of each marking period students are given question sheets with the answers. At the end of each teaching unit (two per quarter) students take a knowledge test composed of 10 questions from the original answer sheet and one point from the student's original 100 points is subtracted for each of the 10 questions missed. If a student gets all 10 questions right he gets a two point bonus which is added to

the 100 points. Two skill tests are given each quarter. Each student starts the skill test with 10 points. If he performs each skill exceptionally well he keeps the 10 points; if he does an average job he loses four points, and if he does poorly he loses eight points. The points lost are deducted from the original 100 points. Ten points on a skill test will give the student two bonus points.

For example, if a student receives 10 demerits during the quarter and misses five questions on the written test and loses four points on the skill test the student would have 81 of his 100 original points which would give the student a "B" mark.

Dr. Pettine, the physical education director at Boulder, Colorado states:

We feel that our system gives each boy an incentive to achieve in physical education. We let him start with a hundred points and work to keep as many of them as possible. Every student's record is down in black and white each day. The student knows from day to day and week to week just how he is doing and his quarterly grade is no surprise to him. We also believe that bonus points for individual and squad achievements inspire boys to work on their skills and study their rules as well as being careful about other factors that influence their physical education grades. (18, p. 3)

#### Schenectady, New York

In the public schools of Schenectady, New York, the marking system in physical education follows the criteria of four areas: (a) Physical fitness, 40 percent of the student's grade; (b) character and citizenship, 20 percent of the student's grade; (c) knowledge tests, 20 percent of the student's grade; and (d) attendance and preparation, 20 percent of the



student's grade.

Physical fitness tests are given for strength, endurance, and agility plus a subjective grade in physical fitness involving apparatus work and tumbling.

Character and citizenship development involves such areas as student cooperation, student leadership, class initiative, sportsmanship, student attitude, and participation.

Written tests are given each marking period and determine student's knowledge of rules, strategy, and history of units covered during the particular marking period.

To receive the full 20 percent credit for attendance and preparation a student must be dressed and participating in the physical education class at least 80 percent of the time. Students can make up missed class periods in the case of medical excuses.

After student points have been assigned in the four areas the following scale is used to determine the student's mark.

A mark equal to 92 - 100 points  
B mark equal to 83 - 91 points  
C mark equal to 74 - 82 points  
D mark equal to 65 - 73 points  
F mark equal to 64 points and below  
(7, p. 1)

#### Yorktown Heights, New York

In Yorktown Heights, New York, the elementary schools have a unique type of report card for physical education in grades third through sixth.

Physical fitness tests are given semi-annually in nine areas (pull ups, rope jumping, broad jump, vertical jump, rope climb, horizontal ladder, set ups, 50 yard dash, and softball throw). The scores are recorded on the physical education report card and sent home to the parents at the end of each semester, along with the fitness report the overall mark (determined by fitness plus, attitude, knowledge, and preparation) in physical education is indicated on the report card.

Besides showing present fitness of the student the report lets parents and students know how much progress has been made from semester to semester and from year to year. The report card also indicates the class average in each of the nine areas; each student can compare his mark with the average mark of the class. A sample report card can be found in Figure 1.

#### Phoenix, Arizona

At Cortez High School in Phoenix, Arizona, marks are given every six weeks. The criteria for arriving at the mark can be found in Table 6.

To obtain the cumulative mark the scores in each area are added up matched against the following scale.

Total score	Mark
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
59 and below	F
(17, p. 3)	

YORKTOWN HEIGHTS ELEMENTARY SCHOOLS														
PHYSICAL EDUCATION Progress Record		Grade Weight Height	3			4			5			6		
Name .....			Dec. 196 ...	Grade Average	June 196 ...	Grade Average	Dec. 196 ...	Grade Average	June 196 ...	Grade Average	Dec. 196 ...	Grade Average	June 196 ...	Grade Average
CHIN-UPS (Arm strength)														
JUMPING ROPE - number of jumps completed in 30 seconds (Endurance, leg strength, coordination)														
STANDING BROAD JUMP (Body movement forward) (feet)														
JUMPING FOR HEIGHT (Jump - Reach - Body movement upward) (inches)														
CLIMBING 20-FOOT ROPE (General strength & coordination) (feet)														
TRAVEL HORIZONTAL LADDER (Arm strength & coordination) (feet)														
SIT-UPS* (Abdominal strength)														
50-YARD DASH (Speed) (seconds)														
SOFTBALL THROW 30 FEET, 10 THROWS (Accuracy)														
* Maximum sit-ups: 3rd - 20 4th - 30 5th - 50 6th - 50														

## FOUR YEAR FITNESS REPORT CARD

Figure 1. Yorktown Heights Elementary Schools four year fitness report card

Source: Physical Education Newsletter. Letter 17, Vol. 7, April 27, 1963

Table 6. Cortez High School marking formula

Area	Test device	Percentage of mark	Points and mark				
			A	B	C	D	F
Physical fitness	Cortez test	35	31	28	24	21	18
Skill	Skill tests	30	30	24	21	18	15
Participation	Attitude evaluation form	20	20	15	14	12	10
Knowledge	Written test	15	15	12	11	9	8

The "Cortez Test" is a color achievement program where each student starts out as unranked and can move up to white, blue, and red. Each of the three colors (white, blue, and red) have a minimum, median, and maximum requirement. A student must first reach the minimum standard, then median, and finally the maximum before he may move up to the next color. The "Cortez Test" can be found in Figure 2.

The author did not tell how the individual marks for skill test, performance, and knowledge were obtained.

#### New Albany, Indiana

The Floyd County (Indiana) schools have what they call an "Objective Grading System." According to the physical education director the grading system is based on personal factors, achievement, knowledge, and leadership.

<b>WHITE</b>	<b>MINIMUM</b>	<b>MEDIAN</b>	<b>MAXIMUM</b>
Sit-ups (2 min. time limit)	35	45	60
Push-ups	15	23	31
Burpees (30 sec. time limit)	14	16	18
Pull-ups	2	6	10
200 yd. shuttle run	36.0	34.5	33.0
Vertical jump	16"	17"	19"
Standing broad jump	66"	70"	74"
Obstacle Course	5:30	5:10	4:40
Thirty-minute Marathon	9½ laps	11 laps	12½ laps
<b>BLUE</b>	<b>MINIMUM</b>	<b>MEDIAN</b>	<b>MAXIMUM</b>
Sit-ups (2 min. time limit)	45	55	65
Push-ups	25	31	38
Burpees (30 sec. time limit)	19	21	23
Pull-ups	8	11	15
200 yd. shuttle run	33.0	31.0	29.5
Vertical jump	18"	20"	21"
Standing broad jump	75"	79"	83"
Obstacle Course	4:50	4:30	4:10
Thirty-minute Marathon	13 laps	14 laps	15 laps
<b>RED</b>	<b>MINIMUM</b>	<b>MEDIAN</b>	<b>MAXIMUM</b>
Sit-ups (2 min. time limit)	75	80	85
Push-ups	40	50	60
Burpees (30 sec. time limit)	22	24	26
Pull-ups	14	16	20
200 yd. shuttle run	28.5	27.5	26.5
Vertical jump	22"	24"	26"
Standing broad jump	86"	90"	95"
Obstacle Course	3:50	3:35	3:20
Thirty-minute Marathon	16 laps	17 laps	18 laps

**Cortez Fitness Test and Requirements for Each Color Group**

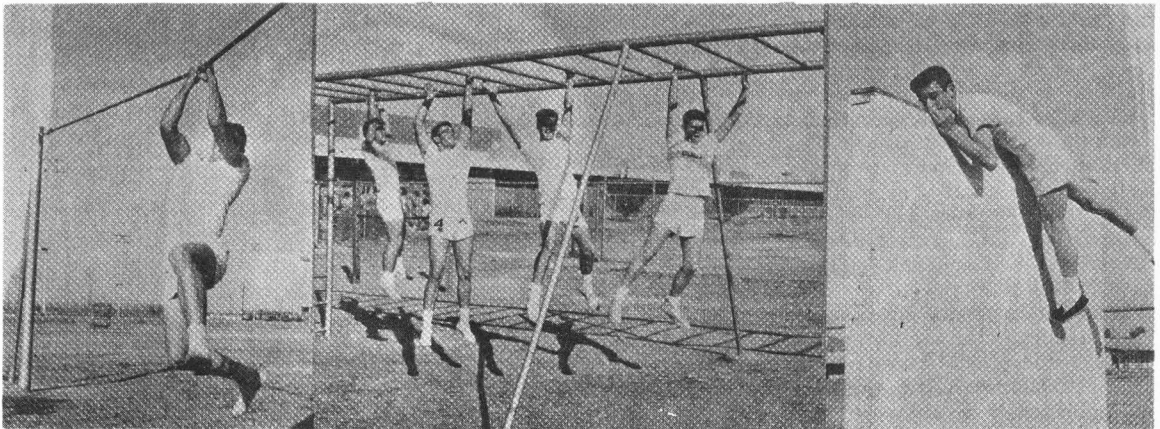


Figure 2. Cortez fitness test and requirements for each color group.

Source: Physical Education Newsletter. Letter 17, Vol. 7, April 27, 1963.

1. Personal factors. Each student starts the marking period with 43 points. Demerits are given each time a student is absent without an excuse, has improper uniform, dirty uniform, uses unsafe practices, also demerits are given for profanity, horseplay, and un-sportsmanlike conduct.

2. Achievement factors. Points are given for fitness and skill tests. Students receive four points for an outstanding performance on the fitness and skill test, three points for above average performance, two points for average performance, one point for poor performance.

3. Intellectual factors. Written tests are given at the conclusion of each teaching unit.

4. Leadership factors. Points are added to the student's score when he takes on responsibilities of leadership such as squad leader, shower captain, and class demonstrator. (14, p. 2-3)

### Tacoma, Washington

The Fife Junior and Senior High School at Tacoma, Washington, use knowledge tests, fitness and skill tests. All skill and fitness tests are based on a 10 point scale. Each point represents a letter mark.

10 equal A	5 equal C+
9 equal A-	4 equal C
8 equal B+	3 equal C-
7 equal B	2 equal D
6 equal B-	1 equal D-
(20, p. 3)	

The final mark for each unit and fitness test is arrived at by dividing the number of points accumulated by the number of tests taken. For example, if a student scores 40 points in eight times, his grade for the test would be 5 or C+ (20).

Harbor Beach, Michigan

The community schools of Harbor Beach, Michigan, group their students in physical education on the basis of ability for each activity. At the start of each teaching unit the students hear a lecture on the activity (basic fundamentals, history, rules, etc.) then skill and written tests are given to determine which of the three groups the student will be placed for group instruction. At the conclusion of the teaching unit both written and skill tests are given again, and 50 percent of the student's mark is based on the amount of improvement he shows on skills and knowledge (20).

Eastville, Virginia

The Northampton High School, Eastville, Virginia, physical education department has developed a grading system which combines skill and attitude along with knowledge, participation, performance, sportsmanship, and appearance.

Students can accumulate 50 points per marking period. The following grade scale is used:

50 points	A+
49-48 points	A
47 points	A-
46 points	B+
45-44 points	B
43 points	B-
42 points	C+
41 points	C
40 points	C-

39 points	D+
38 points	D
37 points	D-
36 and below	F

(21, p. 3)

Points are awarded on the grading factor in the following manner:

1. Preliminary skill test, six points possible.
2. Final skill test, six points possible.
3. Student participation, 10 points possible.
4. Written test, eight points possible.
5. Sportsmanship and cooperation, 10 points possible.
6. Appearance, 10 points possible. (21, p. 3)

Dr. Grover, Director of Health, Physical Education and Recreation,

New York State Education Department states:

Physical education has not achieved recognition as an integral part of the curriculum in a great many schools and colleges because administrators and the general public have a poor image of us as educators. We must alter that image by telling our story, by demonstrating that physical education is teaching, and by showing that our product is of great importance not only to the individual and society but to the education process itself. (19, p. 2)

It is contended that one of the best ways physical educators can improve their image is to have a reliable marking system and to evaluate student achievement through an adequate testing program (19).



## LOGAN JUNIOR HIGH SCHOOL COLOR ACHIEVEMENT PROGRAM

The physical education grading system at the Logan Junior High School is rather unique in comparison to other physical education grading systems in the state and the nation. In fact, it could well be the only one of its kind in the country.

The report card grades of the students are marked four times a year and are marked either S, U, or F. The grades signify either Satisfactory, Unsatisfactory, or Failing.

The rest of the school grades on the standard A, B, C, D, and F system.

Although the S, U, F system of marking is not necessarily unique, the method at arriving at the grades is somewhat different than most systems.

The grades are determined by the performance of the student in two main areas, namely (a) his physical progress in relation to his potential, and (b) his citizenship and cooperation in regards to class rules and regulations.

The grading techniques in each area are explained below:

1. His progress in relation to his potential. This relative grading system is based on the Logan Junior High School Color Achievement Program, and in order to understand how grades are arrived at, it is necessary to understand the color program.

Table 7. Seventh grade color achievement program

Event	Black	Red	Blue	Gold
Pull ups	2	4	6	8
Push ups	15	20	25	30
Bar dips	4	5	6	7
Roll ups (2 min)	40	45	50	55
Squat thrusts (20 sec)	8	9	10	11
Bar vaults	3'10"'	4'	4'1"	4'2"
Shuttle run (160 yd)	35 sec	30 sec	29.5 sec	29.0 sec
Rope climb (16 ft)	Anyway up-and-down	Hands only up-and-down	Hands only up-and-down	Hands only up-down-up
Man lift and carry (carry own weight)	50 yd	75 yd	110 yd	220 yd
600 yard run	2:40	2:30	2:10	2:05
Peg board	Up 2 and back	Up 3 and back	Top and back	Up-over-down
Basketball goals (2 min)	12	16	20	24

Table 7. Continued

Event	Black	Red	Blue	Gold
Softball throw at 40 ft	5 of 20	8 of 20	12 of 20	16 of 20
Football throw at 30 ft	5 of 20	8 of 20	12 of 20	16 of 20
Tube tumbling <sup>a</sup>	Grade 2	Grade 4	Grade 6	Grade 8
Tumbling	Forward roll	Backward roll	Handspring	Headstand
Long horse	Courage vault through and back	Side vault	Front vault	Straddle vault wolf vault
High Bar	Skim the car	Get on bar	Single knee mount	Single knee circle and penny drop
Vertical jump	12"	13"	15"	18"
Swimming	25 yd crawl	50 yd crawl	100 yd crawl 25 yd length back crawl	100 yd crawl time of 1:55 50 yd back crawl

<sup>a</sup>Grade level taken from book, Tube Tumbling by Lynn Pitcher.

Table 8. Eighth grade color achievement program

Event	Black	Red	Blue	Gold
Pull ups	6	8	10	12
Push ups	17	22	27	32
Bar dips	7	8	9	10
Roll ups (2 min)	45	50	55	60
Squat thrusts (20 sec)	10	11	12	13
Bar vault	4'2"	4'3"	4'4"	4'5"
Shuttle run (160 yd)	29.0	28.5	28.0	27.5
Rope climb	Anyway up and down	Anyway up hands down	Hands up and down	Hands up, down, up
Man lift and carry (own weight)	75 yd	110 yd	220 yd	440 yd
600 yard run	2:25	2:18	2:05	1:50
Square peg board	Up and down one side	Up over down over	Vertical 3/4 up	Up to top
Basketball goals (2 min)	14	18	22	26

Table 8. Continued

Event	Black	Red	Blue	Gold
Softball throw 50 ft	5 of 20	8 of 20	12 of 20	16 of 20
Football throw 40 ft	5 of 20	8 of 20	12 of 20	16 of 20
Tube tumbling <sup>a</sup>	Grade 4	Grade 8	Grade 12	Grade 14
Tumbling	Forward and backward roll	Handspring	Headstand	5 sec headstand
Long horse	Side vault	Front vault	Straddle and wolf vaults	Rear vault
High bar	Get on bar	Single knee mount	Single knee forward and penny drop	Single knee Circle backwards
Vertical jump	13"	14"	16"	19"
Swimming	50 yd crawl	100 yd crawl 25 yd back crawl	100 yd crawl time of 1:55 50 yd back crawl	100 yd crawl time of 1:35 75 yd back crawl 50 yd elem back

<sup>a</sup>Grade level taken from book, Tube Tumbling by Lynn Pitcher.

Table 9. Ninth grade color achievement

Event	Black	Red	Blue	Gold
Pull ups	8	10	12	14
Push ups	19	24	29	34
Bar dips	10	11	12	13
Roll ups (2 min)	50	55	60	65
Squat thrusts (20 sec)	13	14	15	16
Bar vault	4'5"	4'6"	4'7"	4'8"
Shuttle run (160 yd)	27.5	27.0	26.5	26.0
Rope climb	Hands only up and down	Hands up down, up	one-half hands down	one-half lever up and down
Man lift and carry (own weight)	110 yd	220 yd	440 yd	660 yd
880 yd run	3:30	3:15	3:00	2:45
Peg board	3/4 up	Top	Up and down	Up, down, up
Basketball goals (2 min)	16	20	24	28

Table 9. Continued

Event	Black	Red	Blue	Gold
Softball throw at 60 ft	5 of 20	8 of 20	12 of 20	16 of 20
Football throw at 50 ft	5 of 20	8 of 20	12 of 20	16 of 20
Tube tumbling <sup>a</sup>	Grade 6	Grade 10	Grade 14	Grade 16
Tumbling	Handspring	15 sec headstand	Handstand	20 sec handstand
Long horse	Front vault	Straddle and wolf vault	Rear vault thief vault	Neck spring
High bar	Single knee mount	Single knee forward and penny drop	Single knee circle back- ward	Kip
Vertical jump	14"	15"	17"	20"
Swimming	50 yd crawl 25 yd back crawl	100 yd crawl 50 yd crawl 25 yd elem back	100 yd crawl time of 1:30 100 yd back crawl 50 yd elem back, 25 yd breast stroke	100 yd elem back 100 yd breast stroke, 100 yd side stroke

<sup>a</sup>Grade level taken from book, Tube Tumbling by Lynn Pitcher.

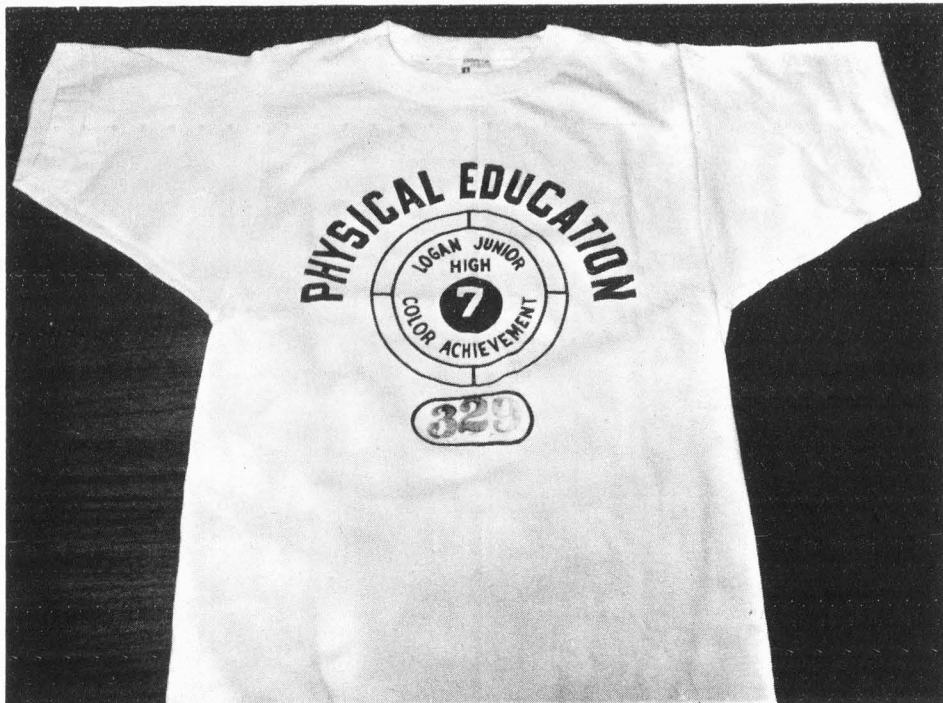


Figure 3. Color achievement shirt



As various units are covered in the physical education curriculum each student is given a chance to improve on his previous skill test mark, and time is given each student to come in after school to improve his skill test marks.

A record sheet is kept on each student in the program. They can refer to it occasionally to see their progress.

As is obvious from studying the Color Achievement Program, variance is not allowed in the program for size, strength, and ability differences except for the natural advantages some receive in different events. The only classification is by the three grade levels; seventh, eighth, and ninth. The requirements for each skill test mark are higher at each grade level.

Therefore, if the grading system was based strictly on the color level achieved by the students it would be an absolute grading system. If the school physical education program was grading on an A, B, C, D, and F basis a system could well be established to give all students who achieved Gold an A, those that got Blue a B, those that reached Red a C, those that got Black a D, and those not receiving a color an F.

This would be an absolute grading system and would classify each student according to his ability and not according to his progress in relation to his ability.

The grading program instituted by the physical education program is a relative grading system. The teacher, after observing the abilities of

the students, will set a goal for each student to reach before the end of each term. It might be for a student to reach black in all 20 skill tests, and it might be an easier assignment, for instance, to accomplish black in 10 skill tests. This is determined by the teacher after observing the student in the various activities, and a new goal is established at the beginning of each term.

The student is also given some say in the matter. The teacher gives the student the assignment, and he is told to talk it over with his parents and if they feel the assignment is too difficult, and the teacher on re-evaluation agrees, then a new goal or assignment is set for the student.

If the student does not reach the goal agreed upon by him at the beginning of the term, then he receives either a U or F depending on how far he missed his goal.

Adjustments by the teacher are also made occasionally. If, for instance, the student puts forth an obviously good effort to reach his goal, but falls short, the teacher can still give a S grade.

The teacher usually adjusts the grade if the student comes after school consistently to try and improve his marks. However, if the student shows no sincere, hard effort to improve then he receives the U or F on his quarterly report card.

In this respect the report card grade is based on the individual progress of the student in relation to his ability. He is not competing against the exceptionally skilled student, but is graded on his own progress.

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In this respect the report card grade is based on the individual progress of the student in relation to his ability. He is not competing against the exceptionally skilled student, but is graded on his own progress.

Every student in physical education knows it is possible for him to get an S grade through diligent effort. This is a good motivation system in itself, not counting the built-in motivation the Color Achievement Program automatically instills in each boy.

This is just the opposite of other classes in the school, which grade on the A, B, C, D, and F system. The D and C student knows before they enter the classroom that they are not going to be able to achieve an A. This is sometimes very discouraging for a student, and although one of the purposes of the grading system is motivation, in some instances it serves as just the opposite.

The Logan Junior High School physical education program in reality includes both absolute and relative grading techniques. Although the report card grade shows only the relative grade, his progress in relation to his ability, the color on his T-shirt serves as an absolute grade, in that if he has gold on his shirt it indicates he has achieved in an exceptional manner in comparison to all the other students in the school.

Another factor, previously mentioned, is also considered when marking the report card grade.

2. His citizenship and cooperation in regards to rules and regulations of the class.

Any student receiving 14 demerits in a term will be given an "Unsatisfactory" grade regardless of his physical abilities, and 24 demerits will constitute a failing grade regardless of the student's physical abilities. Loss of credit for failing grades will be given at the discretion

of the teacher.

Demerits will be given as follows:

A. For not dressing for physical education without a written excuse from his parents, seven demerits. Excuse from parents must be submitted each day. Three excuses will be accepted each nine week term. Doctors excuses will be accepted for the time period designated by the doctor.

B. Not showering without a written excuse from his parents, three demerits.

C. Improper physical education dress, dirty clothing, or incomplete uniform, two demerits.

D. Vulgar or profane language will be assessed demerits commensurate with the seriousness of the situation but not to be less than one nor more than five demerits. If demerits are required in excess of three, parents of the boy will be contacted, and a note of admittance will be required from the parents.

E. Lack of participation or poor attitude in the class will be assessed demerits up to four within any one class period.

An outline of grading procedure is sent home to parents at the start of the school year.

A chart of each of the 20 color achievement activities is found in the gym. Students can check the charts for activity requirements. Figure 4 shows the activity chart for roll-ups.

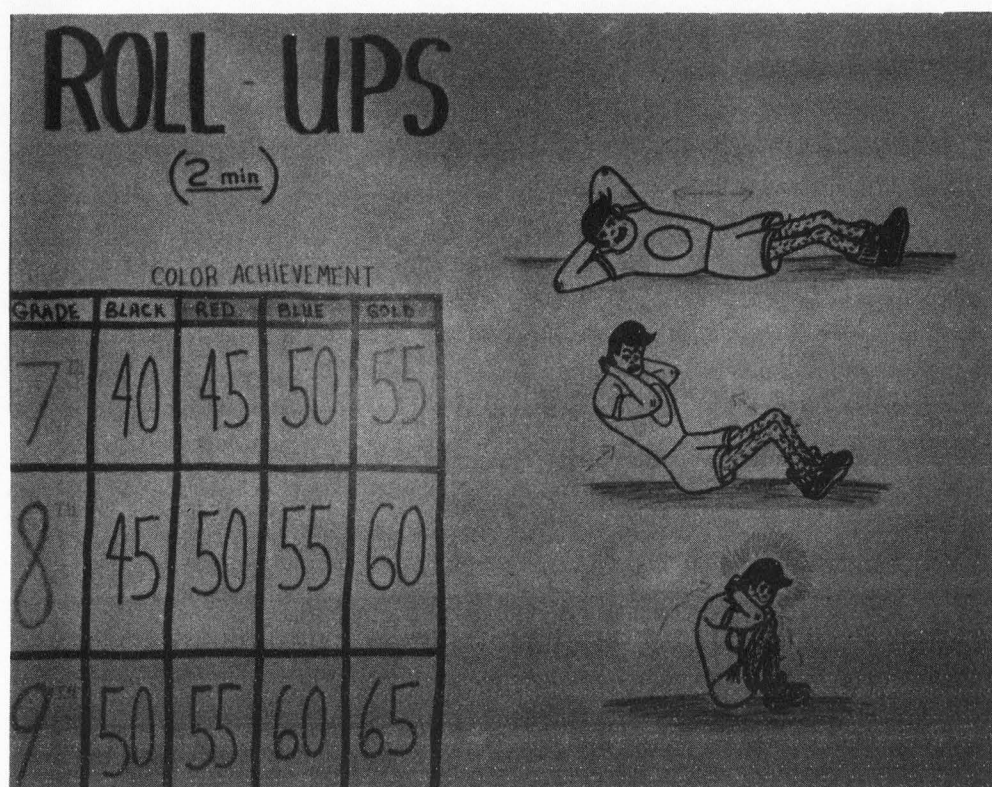


Figure 4. Roll-up chart

The following figures show students doing a half lever on the rope climb, using the vertical peg board, and pull ups on the horizontal bar.

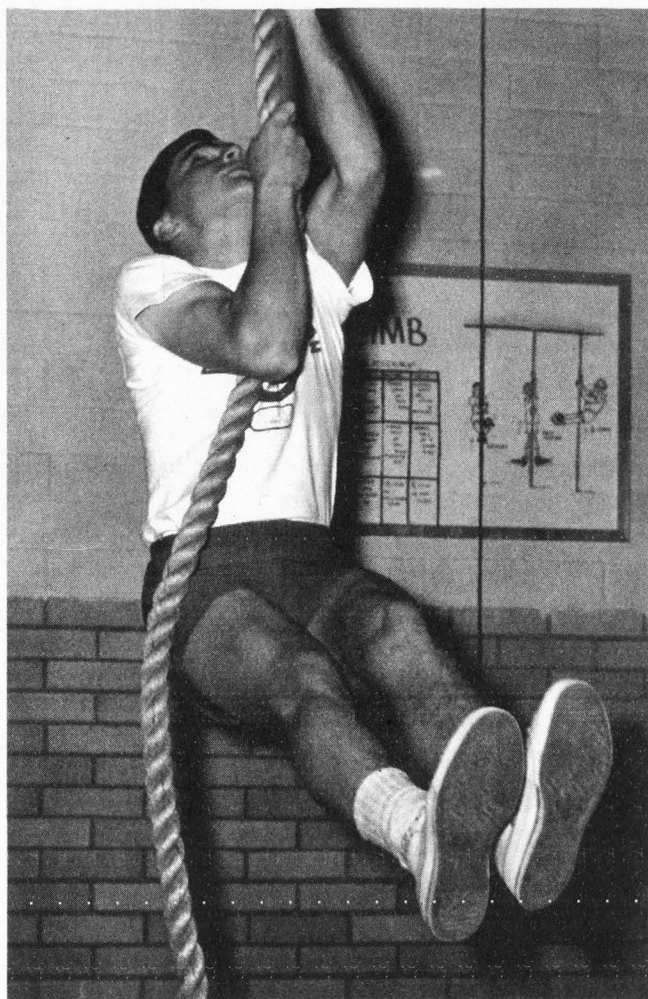


Figure 5. Half lever in the rope climb

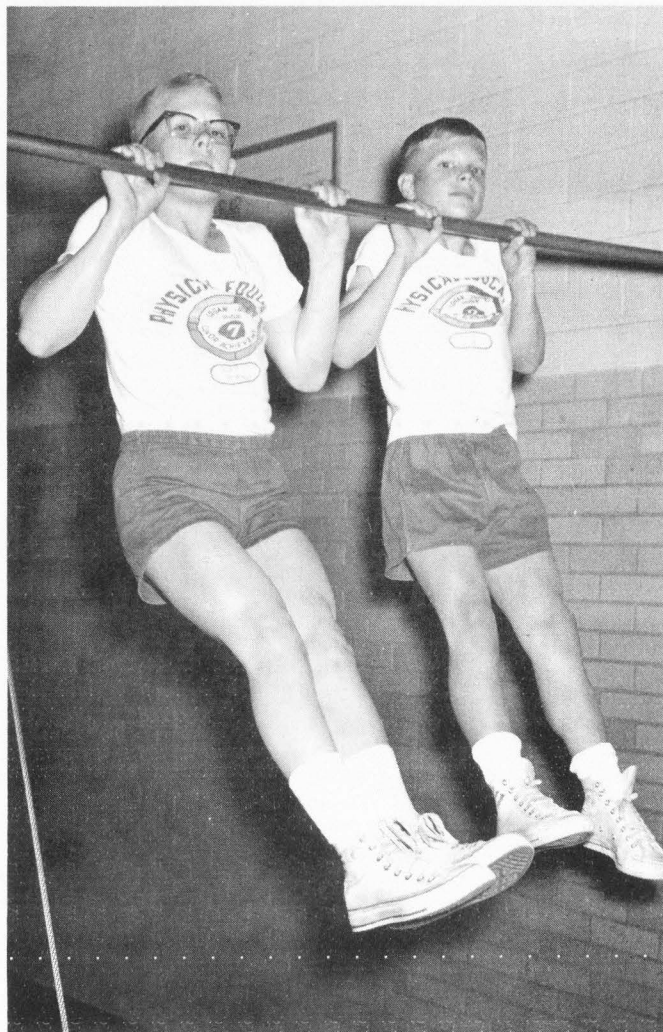


Figure 6. Pull ups on horizontal bar



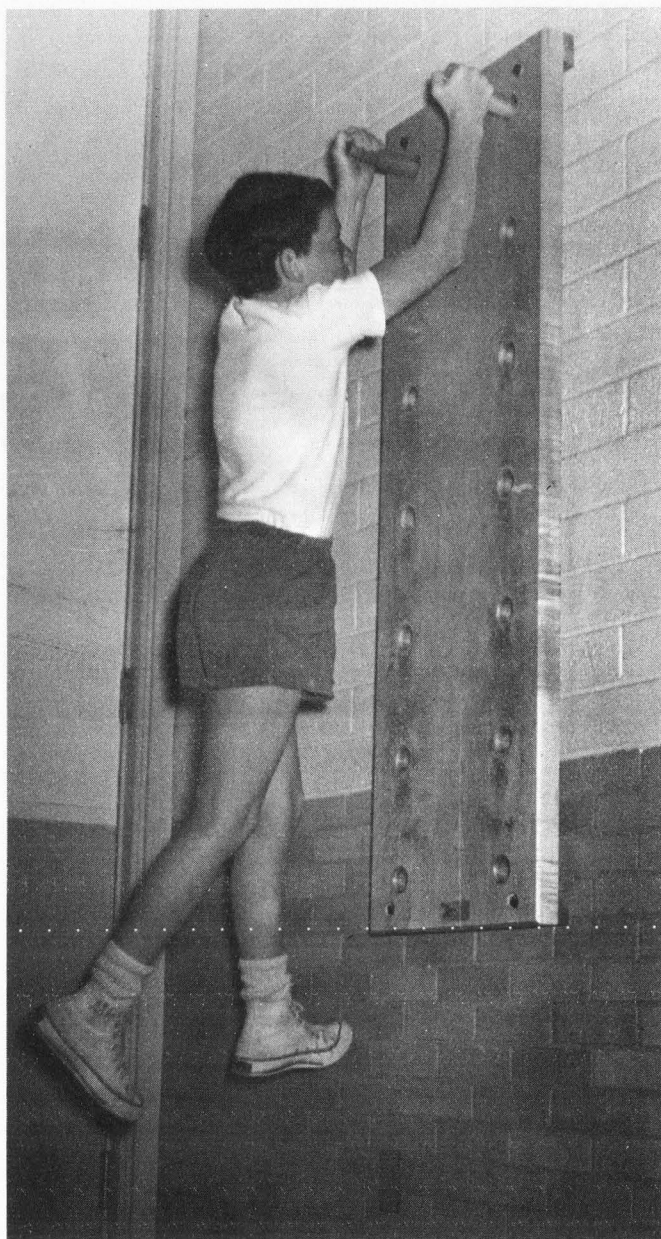


Figure 7. Vertical peg board

## SUMMARY

The marking policy and the reporting system should indicate the students' achievement in relations to established standards and objectives within the physical education class. A marking system's primary purpose should be to interpret this achievement objectively, meaningfully, and constructively; the marking policy should never be regarded as punitive in purpose.

The grading policy can serve students, parents, and teachers as a guide for future development and action.

The many varied aspects of the students' development, attitudes, effort and citizenship traits should receive consideration in determining the final mark on the report card along with the evaluation of the students' class work.

The marking system should be one that parents, students, and teachers can easily understand. Whenever possible the marking system used should be consistent with the marking policy used by other subjects within the school. The marking policy should be developed so that it is adaptable to all established standards of the department.

Both the marking policy and the reporting system should be subject to continuous study and revision.

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