Guide for Planning K-6 Physical Education Programs


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This program planning guide for physical education in New York State Schools, grades K-6, is based on making the student fully aware of cultural, vocational, and aesthetic opportunities so the student can make constructive life decisions. The stated program goals are (a) mastery of communication and reasoning skills; (b) ability to sustain lifetime learning to adapt to change (c) understanding human relations; (d) competence in developing values; (e) knowledge of the humanities, social sciences, and natural sciences; (f) occupational competence; (g) knowledge of culture, self-renewal, creativity, and recreation; (h) understanding citizenship; (i) knowledge of the environment; and (j) ability to maintain one's mental, physical, and emotional health. The program guide discusses recommended steps for achieving these goals, including (a) planning for curriculum development, (b) developing programs goals for physical education, (c) designing the program, (d) assessment, (e) curricular structures, (f) content designs, (g) planning processes, (h) instruction, (i) organization, (j) decision making processes, (k) teaching strategies, (l) special programs for handicapped children, (m) facilities, and (n) evaluation processes. An annotated bibliography is included. (MK)
GUIDE FOR PLANNING K-6 PHYSICAL EDUCATION PROGRAMS
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THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
BUREAU OF ELEMENTARY CURRICULUM DEVELOPMENT
ALBANY, NEW YORK 12214
1975
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Physical education is a vital school subject taught in a laboratory situation in which learners acquire skills, knowledge and positive attitudes through participation in movement activities. Its value is of increasing importance in American culture where many pupils' daily lives no longer include even the minimum of physical activity essential for healthy living. A balanced physical education program is basic to the school's commitment to meet the physical, intellectual and social/emotional needs of learners, since it contributes to all aspects of being.

The purpose of this guide is to provide those who contribute to the physical education program -- administrators, physical education directors, physical education teachers, classroom teachers, parents and pupils -- with a flexible framework from which program options can be developed. Basic components which must be considered in program planning are presented. The interests and needs of the community and learners in conjunction with school district staff will determine the direction of change in existing programs. Consideration must also be given to the 1974 publication by the State Education Department, Revised Regulations Governing Physical Education.

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INTRODUCTION

In general terms, the aim of education in New York State is to develop confident, competent, caring literate beings who can function fully as individuals and in society, who are aware of cultural, vocational and aesthetic opportunities, and are capable of making constructive choices based on awareness. These ideas are further defined by the Regents of The University of the State of New York in a publication entitled Goals for Elementary, Secondary, and Continuing Education in New York State. Ten goals are listed along with the educational outcomes that are the particular responsibility of the school. They are widely shared by the people of the State and are restated here, although not in any order of priority since all are important as expressions of aspirations for a fully educated person.

Each school and local school system is encouraged to use the statement of goals as a basis for action in setting its own goals, assessing the status of its educational programs in relation to its goals, and identifying aspects of its programs that fall short.

Any statement of educational goals must inevitably be based upon a philosophy of life, the individual's part in life, and the role of education therein. In our society, the many views of these matters are translated into differing educational programs with differing emphases on such matters as the role of the individual, the importance of the acquisition of knowledge, and the relation of education to society.

The goals which follow assume the fundamental importance of the individual, and a commitment to freedom and to the acceptance of diversity of belief and action within the broad limits of a democratic system. The physical education program contributes to each of the goals, but especially to the third and ninth ones which are reprinted in full on the following pages.

As a viable member of the educational community, the physical educator is responsible for creating environments in which children have access to the broad goals, but in a movement setting. This guide is presented as one means of providing assistance to schools and teachers who are in the process of developing or revising programs. It is not a statement of what ought to be, but rather, a framework within which teachers may develop a program based upon the values, goals, needs, and available resources of those most affected -- the teachers, learners, and community.

Complete copies of the goals statement may be obtained from the Office of Elementary, Secondary, and Continuing Education Program Planning, State Education Department, Albany, New York 12234.
Goal 1: Mastery of the basic skills of communication and reasoning essential to live a full and productive life

Goal 2: Ability to sustain lifetime learning in order to adapt to the new demands, opportunities, and values of a changing world

Goal 3: Ability to maintain one's mental, physical, and emotional health

School:
- a. Knowledge of good health habits and the conditions necessary for physical and emotional well-being
- b. Knowledge of the physical and health problems caused by drug addiction and other personally harmful activities
- c. Knowledge of sound community health practices
- d. Understanding body processes and functions
- e. Development of physical fitness
- f. Knowledge of safety principles and practices

Goal 4: Understanding of human relations -- respect for and ability to relate to other people in our own and other nations -- including those of different sex, origins, cultures, and aspirations

Goal 5: Competence in the processes of developing values -- particularly the formation of spiritual, ethical, religious, and moral values which are essential to individual dignity and a humane civilization

Goal 6: Knowledge of the humanities, social sciences, and natural sciences at a level required to participate in an ever more complex world

Goal 7: Occupational competence necessary to secure employment commensurate with ability and aspiration and to perform work in a manner that is gratifying to the individual and to those served

Goal 8: Knowledge and appreciation of our culture and capacity for creativity, recreation, and self-renewal
Goal 9: Understanding of the processes of effective citizenship in order to participate in and contribute to the government of our society

School:
- a. Knowledge about political, economic, and legal systems with an emphasis on democratic institutions
- b. Knowledge of the American political process at national, State, and local levels
- c. Knowledge about taxation and fiscal policy
- d. Acquisition of citizenship skills:
  1. Decision making
  2. Group participation
  3. Leadership and "followership"

Goal 10: Knowledge of the environment and the relationship between one's own acts and the quality of the environment
PLANNING FOR CURRICULUM DEVELOPMENT

This guide is intended to facilitate planning at the local level for the K-6 Physical Education Program, that is, to help answer the questions of purposes, to design and organize learning experiences, and to establish evaluation processes. An effective program is more than a series of requirements, a list of topics to be covered, multitudinous instructional objectives, schedules, or other prescriptive measures. It is based on a philosophy which provides for the creative and varied efforts of individual teachers seeking to reach a set of program goals. It contains the critical elements but encourages flexibility in providing for the continuous growth and development of skills, knowledge, concepts, and attitudes of each individual learner.

Program planning can be approached in many ways. There is no set of discrete and segmented steps guaranteed to be successful for each school district. The suggestions presented are based on a framework familiar to most curriculum developers. Basically, it consists of a series of significant questions which should be answered at each of three levels - philosophically at the district level, programmatically for the field of Physical Education, and instructionally for the classroom.

The questions are:

1. What will be the purposes of education at the district level, for the K-6 physical education program, and in the physical education classroom?

2. To achieve the purposes, what learning experiences will be provided at the district level, by the K-6 program, and in the classroom and how will they be organized?

3. How will the results be measured at each of the three levels?

This publication is primarily concerned with working with these questions as they relate to the K-6 program for Physical Education. It is assumed that policies and procedures relating to goals, learning experiences and measurement have been established at the district level. It is also assumed that each teacher considers the individual learner's unique needs and characteristics and uses a wide variety of ways to reach the program goals for Physical Education.

The team that is responsible for curriculum development needs more than technical planning skills. A climate of collaboration, effective leadership, openness, trust, and support are necessary if people are to work as a team.

LEADERSHIP

Any curriculum development effort is directly affected by its leadership. The effectiveness of the group depends greatly on how the tasks are planned and carried out and how the team members and their interpersonal relationships are handled. The leadership role can be assumed by an
CHOOSING A TEAM

An effective effort should be district-wide, involving all physical educators as well as classroom teachers, members of the community at large, parents, students, and administrators. Although the initial group may be unwieldy, it is very important that there be broad representation in the initial planning stages. Small action groups will be used to carry out specific tasks.

There are many ways of selecting participants. An administrator may appoint, groups can select their own representatives, individuals can make nominations of others and/or themselves. Whatever significant differences exist within and among the various groups should be represented on the team. Team members should enjoy discussing, trying out, and/or modifying both new and old ideas and activities, be willing to engage in consensus decision making and collaboration, and have the trust and respect of their colleagues.

NEEDS ASSESSMENT

A logical place to begin is with an analysis of the existing program -- its goals and philosophy, its nature, strengths, weaknesses, gaps, and overlays as they relate to district wide goals. When this has been completed, a decision can be made about the extent and kind of revision effort. (See page 13 for additional criteria for program assessment.)

DEVELOPING A STATEMENT OF PHILOSOPHY FOR THE PHYSICAL EDUCATION PROGRAM

This activity concentrates on question number one on page 4, particularly as related to the Physical Education program. Most school districts have developed a philosophy and corresponding goal statements which answer the question, "What are the purposes of education in this district?" and are ready to concentrate on program. Some districts may wish to accept, modify, change or otherwise reshape the goals presented in the Regents publication, Goals For Elementary, Secondary, and Continuing Education in New York State. Other districts desiring to begin the process of district-wide goal setting may wish to involve representatives of the community at large, parents, teachers, students, and administrators.

A district-wide educational philosophy statement describes characteristics seen as highly desirable for people living in a democratic society. Its design and content are ultimately the responsibility of the board of education. A statement of philosophy is usually theoretical in nature, idealistic, and comprehensively related to the many institutions of our society and relatively short. Goal statements for the district as a whole
include the educational conditions necessary for learners to reach fulfillment of each broad goal and are derived from the statement of philosophy. The substatements of education conditions indicate the responsibilities of the school more directly.

The program for physical education as well as any other area of the curriculum must deliberately and measurably contribute to each of the stated goals of the district in the manner described by the statement of philosophy and educational conditions of the goal statements. Instructional activities reflect a set of beliefs, whether or not the beliefs are in written form. While the task of writing a statement of philosophy and accompanying goal statement may be arduous, it is recommended that it be undertaken, for several reasons. It gives direction to the program, serves as a basis for selecting learning activities, provides a guide for action, and helps to interpret the program to the public. While it is primarily a task for physical educators, administrators, teachers, members of the community, and students would be expected to contribute their respective points of view, ideas, and suggestions during the process of developing the materials. A statement of philosophy for a Physical Education program may include consideration of:

- concepts and issues basic to the field of physical education such as movement, fitness, skills, safety, health, socialization aspects, etc.;
- concepts and issues and their relationships to the role and purposes of physical education in the learner's present and future life;
- the social, emotional, physical, and intellectual characteristics of learners at the conclusion of instruction in physical education;
- the interrelationships of physical education, recreation, and health;
- the role of the physical educator as facilitator and/or manager of learning;
- the commonalities and interrelationships of the roles, objectives, and functions of the physical educator and the classroom teacher;
- instructional methodologies and their relationships to learning styles, concept formation, values, and attitudes of learners;
- the relationships of physical education to the acquisition of skills necessary for active participation in a democratic society;
- the relationships of physical education to the other expressive arts and to the content areas of reading, social studies, etc.

The team may have already given considerable thought to the issues above and may be ready to articulate its beliefs easily and quickly in a written summary. Other groups may want to raise questions and then research those ideas before discussion and writing. The bibliography contained in this publication should provide a starting point. Others may wish to raise the questions with physical educators in the schools and colleges before discussion. Possible resources are listed in the next section of this chapter.
DEVELOPING PROGRAM GOAL STATEMENTS

Goal statements for the Physical Education program describe the necessary educational conditions in terms of student expectations. Program goal statements are:

- related to each of the broad goals of the district and to its philosophy;
- broad enough to be appropriate for K-6;
- applicable to implementation of program on a building basis;
- applicable to implementation of an instructional program by an individual teacher;
- measurable in a variety of ways, on a building basis and on an individual classroom basis;
- understandable;
- discrete, one from another.

The discussion of goal statements and necessary conditions for learning presented on pages 10 and 11 of this publication are intended as starting points. The team designing its own will wish to add others and/or modify those provided, depending on the district-wide assessment of its needs and characteristics.

HUMAN RESOURCES FOR PLANNING

Development of curriculum at the local level is a necessary and valuable activity. State Education Department personnel from the following units are prepared to assist in this effort.

- Division of Physical Education and Recreation
- Bureau of Elementary Curriculum Development
- Bureau of Elementary School Supervision
- Office of Optional Educational Programs

Also, teacher training institutions have personnel who could be contacted.
DEVELOPING PROGRAM GOALS

Physical education contributes to the broad goals of education through the more specific program goals encompassing skills and knowledges in movement, understanding of the effect of physical activity upon the body, feelings of adequacy and mastery, interaction with others, and development of a personal value system regarding physical activity.

The program goals listed here are stated in general terms but they are specific to the field of physical education. They are typical of those being developed by physical education teachers and directors in school districts throughout the State and include affective goals as well as skills and cognitive goals. As staff members continue to work through the process of deriving their own program goals based on local needs, interests and points of view, the program goals discussed here may be modified and/or additional ones identified. Whether the planning process is to be used to revise an existing program or to design a new one, there are several factors to be considered. Of primary importance is the assurance that the intended physical education program does reflect the stated educational aims of the district and that the program goals are properly accounted for in the more specific statements of instructional objectives. The population for whom the program is intended must be assessed in terms of readiness, needs, and interests. What is the social context from which these students come? How much cultural diversity is there to consider? What does the community value in terms of physical activity?

Physical education is an integral part of the total educational growth and development process of each child, and it should significantly contribute in the areas of psychomotor, affective and cognitive development.

The sequential learning experiences designed to fulfill this development should be carefully planned, comprehensive, innovative and intricately combined with teaching strategies to translate the basic, as well as the relevant physical education concepts, into meaningful and successful programs that meet the individual needs of each student. The by-product of such a program should be self-reliant, self-directed, fully functioning individuals, capable of living happy, productive lives in a democratic society where lifetime recreational sport experiences receive great significance.

It is recommended that every school system establish an ongoing physical education curriculum committee to regularly study, review and maintain curriculum structure. This committee might be composed of representatives from administration, guidance, classroom teachers, students, and health services, as well as physical education members from each building level. The curriculum should be developed on a K-12 basis and be appropriately directed toward levels of learning experiences within a particular activity so that regardless of chronological age and grade level, students are participating at their optimal level of performance. The curriculum should be open ended and reflect the ever changing needs of school, community, and society populations.
It is strongly recommended that districts establish program goals and objectives with the latter stated in behavioral or performance terms. Consideration should be given to the establishment of objectives on a grade-level basis as well as for grades K-12. Objectives should be developed for all aspects of the program -- physical fitness, motor skills, knowledges and attitudes.

Since objectives of the physical education program include knowledge and appreciation of physical education activities and the effect of physical activity upon the body, it is necessary that appropriate use be made of classrooms. Textbooks and all types of audio-visual equipment can be used. Resource centers should be available.

In the elementary school, there should be regular communication with the classroom teacher to 1) assess individual needs, 2) identify methods and activities for integration of physical education, 3) provide information and knowledge that will be beneficial in supplementing the program.

A new approach to physical education might include:

- Activities in which students learn to analyze their own performances in an effort to turn errors into positive growth experiences;

- A sequential progression of learning experiences achieved in a carefully guided, self-directed learning atmosphere called a program;

- A program of movement experiences through which the child will develop: efficient body management, physical, intellectual and social growth combined with total fitness;

- A design serving all students: the average, the gifted, the slow learner, the handicapped, the culturally deprived, and those with other limitations;

- An approach where the teacher creates experiences through which there is always positive achievement and success;

- A plan where alternative routes, such as problem solving, and guided experimentation and opportunity for choice are enthusiastically encouraged;

- A series of experiences in which a student learns to analyze mistakes as well as successes;

- Continuous ongoing assessments;

- A teacher becomes a facilitator rather than a director.

Broad educational goals are prepared by school districts and reflect the concerns and expectations of the people served there. Teachers should use these as bases for designing K-12 program goals. Choices and decisions which facilitate attainment of these goals are part of the instructional planning. The following examples of program goals are not presented in any special order. Priorities must be determined at the local level.
Students who participate in physical education programs can expect to gain increasingly complex movement skills, concepts, and knowledges designed to help them deal with physical movement, now and in the future.

Selected areas for study:

**Skill Areas**

- Locomotion
- Object Control
- Body Control
- Flow
- Flight
- Game and Sport Skills
- Rhythmic Skills
- Perception and Movement
- Weight Transfer

**Concepts**

- Space
- Force
- Time
- Rotation
- Balance
- Support

**Knowledges**

- Movement Potential
- Movement Patterns
- Game Structures
- Rules and Strategies
- Health, Safety, and Fitness

Students who participate in physical education programs can expect to develop positive feelings of adequacy and mastery through successful encounters with various movement problems and situations.

Conditions which facilitate affective learning:

- Students are encouraged to set personal goals and work to attain them.
- Students work in an appropriate environment with appropriate equipment.
- Students have a reasonable chance of success through realistic expectations.
- Mistakes are seen as positive learning experiences; learners and teachers give positive support.
- Students have many opportunities to test mastery.

Students who participate in physical education programs can expect to interact with other individuals, both cooperatively and/or competitively.

Conditions which facilitate affective learning:

- Students are encouraged through discussion to recognize the needs and rights of others to use equipment and facilities.
- Students are encouraged to work with others to achieve group goals, and to recognize the contributions of each group member.
Students who participate in physical education programs can expect to develop certain positive attitudes toward activity based upon personal assessment of the value of physical activity throughout life.

Conditions which facilitate learning:

Students need a continuing series of successful experiences as a base for positive attitude toward activity.

Students need to see the cooperation/competition continuum in perspective so as to continue to seek out activity experiences.

Students are encouraged to discuss the experience of movement to fully appreciate the range of responses to activity experiences.

Students are encouraged to explore the range of benefits to be realized through participation in a vigorous program of physical activity.

Students can expect to improve decision making skills relevant to their level of maturity and experience by making decisions in appropriately designed learning situations, under the leadership and guidance of a competent teacher.

Students are expected to gain skills, knowledge, and concepts directly related to their own personal interests, needs, and capabilities.

Students who participate in physical education programs can expect to know and appreciate the effects of physical activity upon the body now and in the future.

Selected areas for study:

Skill Areas

Activities which produce:
Strength
Endurance
Cardiovascular Endurance
Agility and Flexibility
Speed and Power
Relaxation

Concepts

Health
Fitness
Training
Exertion

Fatigue
Recovery
Nutrition

Knowledges

Training Regimes
Motor Fitness
Organic Fitness

Fitness Levels
Tension and Relaxation
Stress Reflexes
DESIGNING THE PROGRAM

Whether the process of designing a program is begun with a study of children, of program goals, of instructional methods, or of content, eventually the state is reached when specific statements will be made which describe and determine the instructional program. These will include the broad educational goals of the district, K-12 program goals for the physical education department, and instructional objectives which provide the day-to-day direction of the program. The later statements serve a dual purpose. They determine direction by giving learners, teachers, administrators, parents, and the community an understanding of the nature of the program, and they provide the means of evaluation so that the degree of attainment is readily assessable.

Rather than representing a single position in regard to implementation of program goals, a series of positions and methods are presented, with possible resultant implications. The intent is to aid the teacher in the processes of determining program priorities, developing effective instructional procedures, and creating evaluative criteria. The potential benefits for children rise as the most important criteria in program implementation. Alternative approaches to content, methods, and environments are recognized as being valid and their development is encouraged, so long as children benefit from the experience. The term "alternative" suggests that a variety of ways must exist to accomplish the stated aim of education, recognizing that different values exist and that there are individual differences in students. Dealing with differences has always been difficult in education, perhaps due to the misconception that only two choices exist.

The primary program should provide for the development of basic movement and body management skills, coordination skills, self-expression and verbal communication. The development of basic concepts, attitudes, values, behaviors, and understandings associated with the ultimate goal of a physically educated person need to be emphasized. Integrated approaches should be considered and encouraged, not only with classroom teachers, but other special subject teachers. Specific skills should be reinforced through game situations, but games should never dominate the program.

The intermediate program should provide opportunities for pupils to develop a higher degree of proficiency in basic movement and to synthesize these basic skills into complex situations in games, fitness, gymnastics, aquatics, and lifetime sports. Opportunity should be provided for intramural activities designed to supplement the instructional classes and should be limited to participation and competition among pupils within one school building or one school district.
ASSESSMENT

One aspect of planning for program implementation is an assessment of the learning environment to see what kinds of programs can be supported. How much flexibility is available in facilities? What is available in the community that would be feasible to use? What demands for equipment will arise from the program design? In considering what has been established as goals, what long-range and short-term time patterns will be necessary to achieve them? How can best use be made of time available in school and after school? Where is there flexibility in scheduling patterns? What about grouping and class size? What constitutes appropriate size for a given activity? When is it possible to combine several groups or classes for instruction? Are coed classes appropriate for all activities? If not, for what activities should boys and girls be separated?
CURRICULAR STRUCTURES

Curriculum serves as a means of organizing content and process into a meaningful program designed to achieve the stated program goals.

Generally there are three main perspectives by which curriculum can be identified: Subject orientation, child orientation, society orientation.

The subject oriented curriculum is based upon the structure of the discipline idea set forth by Jerome Bruner. In physical education this might be represented by a program in which basic movement activities lead to running and tumbling which lead to floor exercise in gymnastics. Another example utilizing equipment might involve basic ball handling skills leading to rolling, to target activities, to bowling.

The subject curriculum may be designed inductively, in which a building block approach to skill development is used. Or it may be designed deductively, in which the end result is analyzed to determine components and then a program is developed to perfect the necessary skills.

The child oriented curriculum has as its core the development, maturity, needs, and interests of each child in the program. It is individualized in that each student's pace determines his/her progress through the program and his/her interest determines the program itself. This curriculum may follow the logical structure of subject matter, if appropriate for the learner; on the other hand, the learner may develop his/her own process of structuring information according to his/her perceptions of the material to be learned.

The last category may be more properly identified as preparing for life in a society since the emphasis is upon the skills, knowledges, and beliefs necessary to be a productive member of that society. In physical education the program might include study of cooperative effort, games and sports of that social context, and degrees of health and fitness necessary to sustain oneself productively.

It is inappropriate to say that one perspective is best and the others inadequate. The three perspectives of subject matter, the child, and society are interrelated and it is more a matter of emphasis. Each may be appropriate for a particular kind of learning with a particular set of objectives. The curricular structures presented will demonstrate options for content, instructional sequence, organization and the like.

The curricular designs presented provide some options. Which of them might be suitable for the intended program? It may be appropriate to use several of the designs, based upon the nature of the content and analysis of needs of differing groups of learners.
CONTENT DESIGNS

When content is selected, consideration must be given to readiness levels and prior experiences, motor aptitude, and the purpose of the activity as perceived by the child. No matter how it is categorized, content in physical education include the following:

<table>
<thead>
<tr>
<th>Locomotion</th>
<th>Object Control</th>
<th>Body Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>walk</td>
<td>roll</td>
<td>balance</td>
</tr>
<tr>
<td>run</td>
<td>throw</td>
<td>spin</td>
</tr>
<tr>
<td>leap</td>
<td>catch</td>
<td>hurdle</td>
</tr>
<tr>
<td>hop</td>
<td>kick</td>
<td>shape and</td>
</tr>
<tr>
<td>jump</td>
<td>hit</td>
<td>position</td>
</tr>
<tr>
<td>slide</td>
<td>strike</td>
<td>dodge</td>
</tr>
<tr>
<td>gallop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>skip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>climb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Game and Sport Skills</th>
<th>Rhythmic Skills</th>
<th>Perception and Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>start and stop</td>
<td>beat and tempo</td>
<td>position in space</td>
</tr>
<tr>
<td>dodge and pivot</td>
<td>step hop</td>
<td>relation to objects</td>
</tr>
<tr>
<td>kick</td>
<td>polka and</td>
<td>object trajectory</td>
</tr>
<tr>
<td>throw and catch</td>
<td>schottische</td>
<td>timing, reacting</td>
</tr>
<tr>
<td>dribble</td>
<td>two step</td>
<td>stimulus receipt and</td>
</tr>
<tr>
<td>tumble and swing</td>
<td>waltz</td>
<td>response</td>
</tr>
<tr>
<td>swim</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The process of selecting content will be determined largely by the assessment of the learner in regard to instructional objectives. Consideration must be given to the developmental stage of the student, to his previous experience and state of readiness for this particular instructional segment and to the nature of the learning experience in terms of the student's learning style and pace. This could mean that during a given instructional period there may be several activities occurring simultaneously, all pointing to the same learning objectives, but each recognizing some individual variation such as rate of learning, learning style, background of experience, and/or personal interest.

Where does selection begin? Generally speaking, growth and development charts provide guidance for program expectations in terms of cognitive, social and emotional, and motor development.
It is important to stress the variability of human growth and development and the resultant need for programs which allow students to proceed as they are ready to do so. The idea of human variation demands ongoing accessibility to learning rather than compartments of information and skills. This is represented more graphically in the flow chart on page 19 which depicts the accumulation of skills, rather than pages of grade level assignments which may or may not be appropriate in a given population. Compartmentalizing information and skills also tends to chop up instruction rather than encourage continuity of growth. The students may have difficulty synthesizing information, thus thwarting a very important aspect of the educative process.
PLANNING PROCESSES

To what extent will the students be able to choose in this program? If the skill of decision making is one of the broad goals of education for the district, it should be reflected in program considerations. One of the areas for development might be a timetable for choice, taking into account student readiness for an understanding of the choice. As they demonstrate success in determining and achieving learning goals, more joint planning may be introduced, reflecting the importance of involving students in decisions affecting their learning.

The Instructional Flow Chart on page 19 might be used as a guideline for assessment and planning.

JOINT PLANNING

Step 1. Determine student readiness and interest through assessment.

Step 2. Analyze results of assessment with students to identify program areas.

Step 3. Discuss with students the content options and scheduling possibilities available to them.

Step 4. Students set goals within the program and develop a schedule which best fits their learning needs.

Step 5. Provide for ongoing assessment of gain and/or shift; reschedule as necessary.

STUDENT-CENTERED PLANNING

Step 1. Assess all students in terms of developmental level, readiness, needs, interests.

Step 2. Analyze results to identify patterns of readiness or need.

Step 3. Create programs which provide for individualized programs within various patterns to be scheduled: Students select class or classes with time based upon needs and interests.

Step 4. Reassess all students to determine gain or shift. Revise program accordingly and publicize schedule.

SELF-CONTAINED CLASSROOM PLANNING

Step 1. Assess all class members in terms of developmental level, readiness, needs, interests.

Step 2. Within a grade level or age grouping, analyze results to identify patterns of readiness or need.

Step 3. Create a program which provides for flexible grouping within
grade levels or age group teams through cooperative or exchange teaching with classroom teachers. Plan individualized instructional programs for or with students within the groups.

Step 4. Reassess all students to determine gain or shift. Review program accordingly, in consultation with other teachers.

INSTRUCTION

SEQUENCE

Generally speaking, certain recommendations can be made about the placement of certain activities on the basis of developmental factors. It must be remembered, however, that children pass through the various levels of development according to their own particular timetables. This increases the importance of the individually designed and paced program which tends to eliminate grade levels. Bearing these cautions in mind, the flow chart on the next page suggests a possible instructional sequence for the physical education program.

Each item in each level serves as a basis for instructional objectives to be designed by the teacher. Assessment of student ability in each category is essential in order to know where and how to begin. If a student should be either below or beyond these skill areas, then different programming will be required as indicated through testing. Each student may progress through the levels on the chart as s/he demonstrates proficiency. Whether s/he moves slowly or rapidly, each student must have access to learning as readiness dictates.
INSTRUCTIONAL FLOW CHART

LEVELS

I
Start and stop in all skills, change direction in all skills easily.

II
Quick change of direction in all skills, combine several moves to right and left.

III
Moves smoothly from one skill to another.

Body Control
Toss and catch
Roll and stop
Kick stationary object
Hit target

Object Control
Throw and catch
Bowl at target
Kick moving object
Hit bouncing object

Body Control
Balance on body parts
Create shape and forms
Suspend, swing self

Object Control
Self testing activities
Tumbling
Apparatus
Swimming

Skill Areas
Games and Sport Skills
Run and tag
Dodge, throw to target
Catch
Kick

Rhythmic Skills
March and clap
Create rhythmic steps
Perform simple dances

Perception and Movement
Awareness of objects
Location in space
Response to cues

Automated moves
Accurate ball flight
Concentration

Verbal, visual, kinesthetic awareness of movement
Automated moves
Adaptability

Gymnastics
Swim and dive
Trampoline
Track events

Perform folk, square and social dances
Create new dances
Use equipment to create rhythm

Play games and sports using tag, run, catch, and throw, hit, kick, strike

Perform folk and square dances
Create rhythm patterns
Combine locomotion and rhythm

Adaptability
ORGANIZATION

The following samples of content designs are included here to show how many ways there are to organize learning experiences. Bear in mind that this is content, and must be matched carefully with developmental levels and needs of children, rather than attempting to fit children to content.

SPORT UNIT DESIGN

A unit of instruction is organized around a particular skill or sport, such as ball handling or volleyball. It extends for a given period of time and includes the introduction of skills, opportunity to practice, and, usually, some type of culminating activity such as a tournament or competition day. It is possible to divide up the school year into appropriate units; the danger here is that the student's pace of learning may be ignored in favor of calendar demands.

A typical unit design for volleyball, Level II and III:

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger tip throw and catch</td>
<td>Bounce and volley</td>
</tr>
<tr>
<td>Bounce and volley</td>
<td>Volley, keep it up</td>
</tr>
<tr>
<td>Position in relation to objects and players</td>
<td>Perceiving position in relation to ball</td>
</tr>
<tr>
<td>Perceiving ball flight</td>
<td>Passing to positions (throw or hit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing to positions (throw or hit)</td>
<td>Serve or throw</td>
</tr>
<tr>
<td>Using space to advantage</td>
<td>Volley or bounce volley</td>
</tr>
<tr>
<td>Serve or throw</td>
<td>Use of space</td>
</tr>
<tr>
<td>Volley or bounce volley</td>
<td>Game rules and strategy</td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 5</th>
<th>Week 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tournament:</td>
<td>Tournament or demonstration</td>
</tr>
<tr>
<td>Volleyball</td>
<td>Evaluation</td>
</tr>
<tr>
<td>Bounce volleyball</td>
<td></td>
</tr>
<tr>
<td>Newcome</td>
<td></td>
</tr>
</tbody>
</table>

THEME DESIGN

A theme ordinarily is built around some interest of the students and requires joint planning by teacher and students to identify what is to be included. For example, a circus theme can be very exciting and challenging. Other topics of high interest to children might include Fitness Days, Pilgrim Days, Space Age, Physical Education, Pentathlons with special events appropriate to the age group. The planning for a theme might include the following:
CONCEPTUAL DESIGN

It is possible to design the entire year-long program around the various concepts which exist in physical activity. By definition, a concept is an abstraction which describes a particular set of characteristics or facts. The concept of balance describes a state of equilibrium in which the center of gravity is over the base of support, and there is friction between the base and the supporting surface. It is possible to spend a good deal of time studying balance in many different ways, different environments, and different positions.

Concept learning requires a lot of thought. The student must deal with questions of how a particular movement fits into a particular concept, what is happening during the movement, what other movement can fit the same concept. How can concepts be grouped to form larger concepts? More of the responsibility and initiative for learning can be shifted to the student as s/he attempts to deal with those kinds of questions.

A concept curriculum might be designed as follows:

CONCEPT TO BE STUDIED: BALANCE

Words Which Represent Balance

Still          Tall
Low           Even
Wide          Under
Strong       Steady

Asking students to develop their own word lists assures that they will have a basic understanding of what they will be studying and using. As the instruction proceeds, words and definitions can be expanded and clarified.

Once a beginning list is developed, ask a series of questions which the students will answer:

Choosing one of the words from the list, how can you be tall and balanced?
What does a strong balance position look like?
After you run, how can you be balanced when you stop?
As the students deal with these kinds of questions, the teacher might ask additional questions of individual students who may be having difficulty or be in need of greater challenge. When it appears that the students have found sufficient answers, they can be brought together to discuss their findings and check accuracy, adding to the word list as necessary. This discussion period can lead to new questions, new words, new understandings; perhaps to new types of activities and games.

Concept Design: Balance, Level I

Week 1
Group discussion of balance words to be put on board. Select one or two words to study. Present a question or movement problem. Discuss findings.

Week 2
Review findings. Elaborate on ways to answer questions: equipment, levels, partners, etc. Use student words for study. Provide individual challenge and encouragement.

Week 3
Begin to group words together, explore relationship of words. Check accuracy of definitions. Explore other balance positions.

Week 4
Summarize and demonstrate findings on balance. Have group attempt different moves.

Week 5
Culmination period. May suggest and explore new activities and games. May generalize understanding to sport skills.

To bring the study of a particular concept to closure, have the students participate in a demonstration in class sharing their knowledge and discoveries. Have them formulate hypotheses about some item they have been studying, using understandings to predict subsequent actions. The quality of student responses will give the teacher an indication of depth of learning. At this point, the teacher can decide to continue the study to reinforce comprehension or to move into another area, later to join together two or more concepts in the study.

DEVELOPMENTAL CONTINUUM DESIGN

This kind of design may be compared to a continuous progress plan in which learning experiences are planned sequentially along a given track from basic or beginning movements to highly complex ones. This type of continuum may extend over a K-12 span, a K-6 span, or over a singular unit of instruction. The purpose of developing the continuum is to demonstrate
how skills can be related to and built upon one another for the purpose of achieving proficiency and understanding.

It should be pointed out that at any given point along the continuum it is possible for a student to study movement in depth for the purpose of becoming really expert, or to satisfy some "need to know" at that particular stage of development. Both these goals are compatible with the aim of education.

A continuum at any level involving individual movement potential would include the following areas:

**Body Awareness**
- body image
- relation of body parts

**Movement in Space**
- trampoline
- self-testing stunts
- apparatus
- rotation around axes

**Location of Space**
- positions
- static balance
- posture
- levels

**Movement Through Space**
- locomotion
- dodging
- moving on various surfaces
- encountering obstacles
- changing levels

This particular content is essential to understanding how the body moves, and what individual movement potential is. Each area may be studied in depth, or a sequence of study may be developed.

Another possibility for study along such a continuum could be the development of locomotion from creeping and crawling to the most intricate forms of dodging or a triple jump. As a student participates in the various activities, s/he comes to appreciate the many ways in which a person is capable of moving through the environment.

Yet another example might study the way in which objects might be controlled and/or played with, from the most rudimentary forms of pushing and stopping, to applying spin and aiming for a target.

The purposes of this type of design is to demonstrate a means of study with a slightly different emphasis. It was suggested in the Sport Unit Design that a skill was learned for use in a game; in studying a continuum, the primary outcome is to understand extent of movement as well as cause-and-effect factors or relationships. The use to which such study is put is determined after the study occurs, as a synthesis or creative process, rather than as a reason for study.
DECISION MAKING PROCESSES

When is it suitable to offer choices to students, and in what areas might a student choose? A very young child is capable of choosing between a limited number of items, as in color or shape or sound. Given the opportunity, a child's ability to discriminate improves as more choices are made, and s/he learns the factors to consider in weighing alternatives.

In education, a child is capable of choosing, within the broad limits of a subject area for example, in ways which assure that instructional objectives will be achieved. In the study of balance, a child might be too fearful to encounter a balance beam, but would be perfectly willing to work on a balance board four inches from the floor. The objective of understanding factors which contribute to balance will have been met.

As students develop and exhibit the increasing maturity necessary to deal with choice, it is entirely possible to offer options within a subject area. Two fifth graders might be interested in football, one in perfecting the skills of passing; the other, in computing average yards gained by a favorite athlete.

In another situation, one group of students might choose to work together to perfect a strategy for a favorite game while another group may elect to work independently to improve their fitness levels. In each case, knowledge is building about some aspects of the subject area, the students are meeting program objectives, and they are learning to bear the responsibility for making their own choices.

Out of the total experience of choosing comes the realization that the values held at a given time will determine the choices made, and that a seemingly wrong choice may be in fact an unclear value position. The long-range benefits of understanding values, and their effect on decision making processes are clear.

At some point, the teacher must decide what decisions can be given to students to make in keeping with an aim of education. First, the kinds of decisions need to be identified. The following list represents variables which are inherent in the teaching/learning situation and may become the bases for decision making.

<table>
<thead>
<tr>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>time</td>
</tr>
<tr>
<td>physical environment</td>
</tr>
<tr>
<td>materials</td>
</tr>
<tr>
<td>objectives (content)</td>
</tr>
<tr>
<td>teaching style</td>
</tr>
<tr>
<td>instructional methods</td>
</tr>
<tr>
<td>grouping</td>
</tr>
<tr>
<td>organization</td>
</tr>
<tr>
<td>rate of learning</td>
</tr>
<tr>
<td>needs and interests of learners</td>
</tr>
<tr>
<td>learning style</td>
</tr>
<tr>
<td>evaluation</td>
</tr>
<tr>
<td>classroom climate</td>
</tr>
</tbody>
</table>

Analysis of a learning situation in a gymnasium might make the decision making process clearer. A class of students is engaged in a unit of ball handling, and is concentrating on the skill of rebounding. Some students are in pairs, there is one group of six and several are working singly. There is a great assortment of equipment in use, from tennis balls to
utility balls to medicine balls; some books on basketball lie open on a corner table. The teacher calls the group together to discuss its findings about rebounding.

Looking at this situation in terms of decision making, the following analysis could be made:

<table>
<thead>
<tr>
<th></th>
<th>Teacher</th>
<th>Teacher/Student</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>time</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>physical environment</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>objectives (content)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>teaching style</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>instructional methods</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grouping</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>organization</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>rate of learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>needs and interests of learner</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>learning style</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluation</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>classroom climate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the example above, the teacher made decisions about what was to be studied, and the students decided how to study and with whom. As students become more familiar with choice and decision making, they become capable of determining their own objectives, selecting methods and organization, and evaluating progress. This is a reality in many existing primary programs.

One of the major thrusts of open education is toward much greater involvement of students in decision making about their education. To analyze an open classroom in the above chart would find a high proportion of decisions, falling on the Teacher/Student or Student columns. In other situations, most of the decisions are made by the teacher.

The process which involves both teachers and students requires thought and preparation. Each step in shifting responsibility from teacher to student must be a deliberate one, clearly described in advance so that everyone understands what is expected.

The evaluation of such first steps can be a joint process, with assessment of students' ability to deal with decisions one of the first topics.

It is generally recognized that children and adults respond to structure and openness in differing ways. If the educational program is to be consistent in meeting the needs, interests, and developmental levels of every student, then the degrees of structure must be provided which each child requires in order to be a successful learner.
TEACHING STRATEGIES

With a shift in decision making possible, and with students able to assume more responsibility for their own learning, there must be some adjustment in the activities which the teacher ordinarily performs. For one, the teacher no longer needs to be the primary information source for the class, but may, instead, provide many sources of information such as films, books, pictures, tapes, and so forth. The responsibility becomes one of resource coordinator. For another, when the students choose their own topics, there is a shift in the degree and kind of teacher motivation necessary and time may be spent in guiding individual students who might be in need of help or clarification. Rather than serving as final evaluator of learning, the teacher in this changing role meets with students singly to help them determine their gain and achievements. The teacher assures that accurate assessment is being made and helps the student set new goals. Thus, in addition to designing experiences in which students gain skills, concepts and knowledge, the teacher becomes a resource coordinator who guides learners through the processes of learning to learn. These different aspects of teaching are in keeping with the intent of alternative routes to education, which are meant to achieve stated goals and objectives through many differing approaches.
SPECIAL PROGRAMS IN PHYSICAL EDUCATION

Special programs are intended for those students who are identified as falling outside the norm of the typical student population. The cause for this exception may be temporary or permanent in nature; in either case it demands special programming. If a pupil has some physical condition which temporarily or permanently precludes participation in regular classes, the program should be adapted to meet the pupil's needs. Decisions concerning the adaptation or modification of activities should be made in consultation with both the school and family physician. Several categories of exceptions will be discussed with possible program options.

PHYSICAL HANDICAP

This may be a temporary or permanent disability, either congenital or acquired, which restricts normal range of movement and reduces movement potential. The student may need braces, crutches or artificial limbs; he may be ambulatory or require the assistance of a wheel chair. There may be disability in any one or all four of the limbs. The vision or hearing may be affected.

The first step is to determine the extent to which the disability inhibits movement and then to list the types of activity which might be harmful to that disability. This information provides a framework within which a program can be developed.

Two program areas are generally suggested for physically handicapped students. One involves those activities which increase the range of movement within the limits of the handicap. The other area deals with the various ways in which the student may adapt to or cope with his environment within the limits of the disability. All of the feelings of adequacy, worth, and capability are fully functioning in the physically handicapped student and need to be recognized and dealt with appropriately. The student needs opportunity for success and s/he also needs to be involved in the setting of his personal learning goals.

MENTAL RETARDATION

The degree of retardation will have direct bearing on the extent of program offerings for these students. Assuming there is no physical handicap, the major emphasis in this program is toward effective body management in an activity setting. This will require participation in body image and position in space kinds of activities as prerequisites to those activities which use equipment of various sorts. Activities which use equipment of various sorts. Activities which stress the need for cooperation to achieve commonly agreed goals have great value for the mentally retarded student. Since the ability to deal with abstractions or concepts is reduced for the retarded, emphasis needs to be placed on concrete experiences, with continuous verbal recapitulation. The processes of task identification, goal setting, attending to task, and evaluation of each of these must be verbalized throughout the experience.
Again, feelings of self-worth and success need to grow naturally out of the activity. Pride in personal accomplishment and group endeavor needs to be fostered, since the desire to do well and be recognized positively is very strong in the mentally retarded.

**PERCEPTUAL HANDICAP**

A perceptual disability occurs primarily in the area of information processing, with the resultant behavior often inappropriate or inadequate. The disability may lie in one of the sensory channels: visual, auditory, tactile, kinesthetic, and less important in school, olfactory and gustatory. It may be in the integrative process so that the student has difficulty associating incoming information with prior experience, having always to start anew. The difficulty may occur in the response or motor area, so that performance appears incorrect or inadequate.

There are many tests available which will help to determine the areas of dysfunction. Once diagnosed, it is possible to design a program which will help to overcome the disability, or at least help the student to learn how to cope with the problem. It is important that the student understand how s/he processes information, so that s/he can capitalize on his/her stronger areas as s/he remedies the weaker ones.

Here again, verbalization is important. The student needs to state what s/he intends to do, describe it as s/he performs the activity and then summarize what s/he has done. This will encourage focusing on the task at hand and attending to the various stimuli within the movement itself. All aspects of this activity will aid in strengthening the information processing which the student must do.

**EDUCATIONAL HANDICAP**

This term encompasses a wide range of disabilities which have negative or inhibitory effects upon learning. They may be emotionally based problems or those arising from some neurological dysfunction. Since these students seem to fall within the normal population according to all appearances, it is sometimes difficult to pinpoint the fact that they need help in learning. It has happened that this kind of student is treated for behaviors which are symptomatic of very serious problems but which are sometimes misinterpreted as disciplinary or attitudinal in nature.

The educationally handicapped student needs support of a different kind than the physically handicapped, but equally as necessary as a brace or wheelchair. Structure and routine are important, as are opportunities for many successes that are significant and not contrived. This student needs to feel that the environment can be controlled to a certain extent, and that s/he can determine his/her own goals. The student needs to know that s/he can accept challenges confidently just as s/he needs to know the limitations of his/her abilities.

Opportunities for group interaction and cooperative play need to be considered, but with some qualifications. The educationally handicapped student very often has great need for individual recognition and success.
Group activity sometimes reduces this possibility to eliminate a child from play simply because s/he is not good enough to hit or catch or dodge in a competitive situation, nor is it tenable to withhold a child from physical activity because s/he has misbehaved in another area of school. Any activity selected for this group must assure each student of at least reasonable chances at success, and must certainly be within the range of his/her capabilities. Growing out of the realization of success and confidence will be a growing readiness to accept and work with others. This is the appropriate time for group activities.

PLANNING THE PROGRAM FOR THE HANDICAPPED

The very fact that a handicapping condition exists requires that specialized planning be done. Since the cause of the condition may be physiological or psychological in nature and therefore outside of the realm of the teacher, it is suggested that a diagnostic planning team be utilized to develop program. The team might include the student's physician who could recommend appropriate activities, the school nurse, the psychologist who might conduct testing or counseling, all classroom teachers who have contact with special classes, and the teacher who coordinates the total educational experience.

Some special education students need help in sorting out and synthesizing all the different areas they deal with each day. The classroom teacher appears to be in the best position to judge the impact upon and progress of each student as he moves through the program.
FACILITIES, EQUIPMENT AND SUPPLIES

It is of utmost importance that a school district provide adequate facilities, equipment, and supplies to conduct the best possible physical education program it can for its pupils. It is also most desirable that the elementary school be planned as a neighborhood center. This has very definite implications on what is made available for physical education and recreation programs.

The following facilities, equipment and supplies are recommended to provide one period per day of physical education class instruction, appropriate related activities, and to serve as a neighborhood center after regular school hours.

FACILITIES

Indoor:

- Adequate markings for court sports and game circles are recommended for each teaching station. Shuffle board, indoor softball, and other markings the teacher may require may be desirable.

- Ample uncrowded dressing, drying, and shower areas are necessary.

- Laundry and towel service is desirable.

- Teachers' office space and equipment would be ample to conduct routine paper work, for pupil consultation, and record keeping.

- Ample storage space for all equipment and supplies is essential.

- Folding bleachers for pupil and parent demonstrations are desirable.

Outdoor:

- Elementary school sites should provide:
  - Separate all weather surfaces for kindergarten, primary, and intermediate grade use
  - Separate turf areas for kindergarten, primary, and intermediate grade use
  - Separation of areas by safe fences or hedges is desirable
  - Shaded areas
  - Sand or sand box areas for kindergarten use
  - All weather surfaced areas equipped with installed game standards and painted lines to accommodate dashes, relays, tennis, badminton, volleyball, basketball, softball, or kickball, circle, and other appropriate games
- Proper backstop and fencing for maximum safety
- Winter sports facilities such as skating and sliding surfaces if appropriate to the geographic area

EQUIPMENT AND SUPPLIES

Teaching supplies and equipment should be provided by the district in such quantity to ensure that each student has maximum opportunity to participate and practice.

The following list is considered essential to guarantee a quality program:

1. Small equipment such as bean bags, fleece balls, hoops, jump ropes -- one per student.
2. Tires, scooters, wands, stilts -- one per each five students.
3. Mats for tumbling, gymnastics, wrestling, stunts -- sufficient number to serve a class.
4. Gymnastic equipment such as balance beams, trampoline, vaulting boxes, parallel bars, springboard -- sufficient to serve a class.
5. Equipment of wood or metal that can be altered in height or design to meet the needs of children of various ages is recommended.
6. A variety of balls so that each child may participate during instruction and practice.
7. A collection of balls related to sports such as basketball, football, volleyball, soccer, etc., of junior and intermediate size, one per two or three students.
8. Implements such as bats, racquets, paddles, sticks, and clubs in sufficient quantities and sizes so that each child can practice with selected equipment.
9. Rhythm and dance supplies including records and variable speed player, percussion instruments, shakers, drums.
11. Materials to create obstacle courses including cones, ropes, boxes, blindfolds, in addition to mats and apparatus.
EVALUATION PROCESSES

Evaluation is done most frequently through assessment of student progress in skills and knowledges. To a lesser degree, instructional programs are evaluated as to relevance, need, and effectiveness.

An accurate evaluation process must be devised which encompasses the three major components of the educational situation: students, teachers and programs. What is that process and how can it be applied to each of the components?

The evaluation process is comprised of several steps:

1. Identification of objectives. It is essential that the intent of the experience be clearly outlined so that proper measurement techniques can be identified.

2. Description of learning experiences.

3. Selection of measurement tools. Whatever measurement is used must be specific enough to provide accurate assessment of that which is being evaluated. Too broad or general measurements give very little useful information; too specific ones require inordinate amounts of time to collect enough data to make judgments. The selection of measurement devices will depend upon the nature of the activity. Content is relatively easy to assess while skill acquisition is more effectively assessed through a skills test.

   In selecting a measurement tool, first study the objectives: if the intent is to improve speed, for example, what is the best means of measuring speed? Over what distance should speed be measured, and how many trials are necessary? How often should the student be assessed? In another example, if the objective is to develop cooperative attitudes among players, what means can be used to determine whether or not attitude has changed? What constitutes cooperative attitude?

4. Administration of tests. Consistency is important if test information is to be of any use. The test taking conditions must be as nearly alike as possible; the measuring devices accurate; directions and indications must be comparable from one test to the next. Test scores must be recorded accurately and in usable form.

5. Analysis of data. This phase of evaluation serves to give meaning to all the information collected. It can be a comparative process as from first test to second to third. It can be cumulative in that total gain is assessed. In the case of attitudes or values, it might also be the degree of change. The analysis must occur in reference to the objective. Has the student attained the objective? If not, what changes are required?
6. Restatement of objectives. Periodic evaluation provides the necessary information to determine the necessary next steps in working toward program goals. It is the most effective means of assuring that time and energies are being used to greatest advantage.

7. Redesign of learning experiences.

**ASSESSING MAJOR COMPONENTS: STUDENTS, TEACHERS, PROGRAMS**

In what ways might each of the three major components of the educational situation be evaluated? From the students' perspective, evaluation should encompass the areas of skill and knowledge acquisition, self-awareness development, attitude clarification, appreciation of fitness, and recognition of the values of physical activity throughout life. More specific performance statements can be developed in each of these areas so that assessment can be facilitated.

A performance statement contains a brief description of the conditions, the desired terminal behavior, and the criteria by which evaluation will take place. Here are some examples of performance statements for students.

1. Standing 10 feet from the wall and using an underhand and throw pattern, the student shall catch the ball without it bouncing 8 out of 10 times.

2. Standing on the service line 25 feet from the 3-foot high net, the student shall bounce and hit a tennis ball with a racquet over the net into the other court 6 out of 10 times.

3. A student shall demonstrate understanding of the concept of balance by building stable pyramids with wide and narrow bases.

4. A student shall demonstrate the value attached to physical activity through listing 5 activities that are most favored, 5 that are least favored, and by using 6 words to describe each activity.

Evaluation of the teacher might center around the two distinct but related areas of personal goals in teaching and professional effectiveness. Each teacher has at some point considered what is personally important in teaching: to be respected, to be fair, to be available, to be perceptive of students' needs, or to achieve personal satisfaction. Each of these thoughts can be translated into objectives which can then be assessed.

Professional effectiveness can be transcribed into statements reflective of student objectives. Is the teacher effective in helping students achieve their objectives? Does the teacher provide for individual variations in learning style? Does the teacher provide easy access to information? All of these questions refer to observable behavior which can be assessed.

Teacher behaviors which might be translated into performance statements...
include the following:

1. Through the use of a daily log the teacher shall indicate how much time is available to students beyond instructional time.

2. The teacher shall develop 2 lists of 10 items each which describe
   a) the satisfactions gained from teaching and
   b) the areas of needed growth.

   This list is to be reviewed and compared monthly.

3. The teacher shall demonstrate through specific instructional objectives and activities that individual students learning styles are being recognized.

4. The teacher shall develop a resource center of instructional materials that include 3 modes of instruction in 3 different subject areas.

Program evaluation must include the learning environment, the facilities and equipment necessary to conduct the program, the content areas and whether or not they are appropriate for students, and the degree of flexibility available to meet individual student variations.

Evaluation of the learning environment will include the following areas:

1. Each instructional objective shall be matched with sufficient equipment to accommodate a minimum of one-third of the groups.

2. Each instructional period shall allow for a minimum of two distinct activities to occur simultaneously when appropriate.

3. Each student shall have the opportunity to be active a minimum of 75 percent of the class period.

4. The program shall be designed so that each student will show gain in learning in each instructional segment.

Evaluation should be considered as a positive, ongoing process which is designed to aid in the attainment of educational goals. Only by assessing each of the major components of the educational situation is there assurance that each component is contributing to that attainment.
ANOTATED BIBLIOGRAPHY

GENERAL EDUCATION


The first section deals with movement in various forms, beginning with the child's personal movement skill, then moving with objects and/or using objects. Each area includes a suggested grade placement chart to help teachers in planning instructional sequences. Two extensive chapters on rhythms and dance are presented. The second section deals with the theory behind the activity and includes planning, source lists, constructing equipment, and integrating activities.


Four themes are developed in this book which has become a classic in education. The first deals with the role of structure in learning, and how understanding of structure facilitates the learning of relationships. The second theme is concerned with reas for learning, and that the foundations of any subject can be taught to anyone at any age in some form. Third, a discussion of intuition, the development of ability to make tentative guesses which then provide direction to study -- and the development of such talents in students. The fourth area relates to the desire to learn and how it may be stimulated. By interrelating these four themes it may become possible to help students attain full utilization of their intellectual powers.


Includes suggestions for equipment made from throwaway items as well as low cost purchasable materials. Lists of activities are presented for each kind of equipment, and a brief source list of vendors is located in the appendix.


The first section of this book provides the foundation and rationale for the teaching units found in section two. Basic movement education is seen as structure and process in physical education, with the identification of content encompassing elements of movement, physical laws, and principles of human movement. The process aspect emphasizes involving the learner in the educational process through goal setting, active participation, meaningful tasks, discovery and problem solving, and intrinsic motivation. The teaching units are graded according to depth (complexity) and prior experience, with a checklist to be used by the teacher to determine if objectives have been met.

A series of articles written by recognized educational leaders deal with the questions: Why Individualize? What Is Individualization? Programs and Practices. The intent of the book is to formulate clearer understanding of the concept of individualization of instruction, to help teachers, faculties and administrators begin deliberation of questions dealing with roles of teachers and students, choice, grouping, and materials.


The author suggests that physical education should be totally integrated with other subject areas in the elementary school curriculum. Three areas are identified for consideration and elaboration: curricular physical education; cognitive physical education; compensatory physical education. The first describes the physical education program itself, including content and curriculum development. The second area discusses the ways in which math, science, and reading can be studied through physical education. The third area is concerned with the developmental or perceptual motor aspects of a physical education program, and discusses research conducted in the area.


The five parts of this book deal respectively with foundations, curriculum, game activities, self-testing activities, dance activities and physical fitness evaluation. There are suggested grade level charts for the various activities, in addition to suggestions for practice activities and lead-up games. Many pictures are included to demonstrate certain skills and movements.


This book uses a case study approach to look at the topic of grades and grading in public schools. The major portion of the book discusses the pros and cons of grading from the perspectives of students, teachers, administrators and parents. Several alternatives to letter grades are presented, and a plan of action for change is described. The appendices include a comprehensive report of research literature on grading and a rather complete listing of alternative evaluation and grading systems, including advantages and disadvantages of each.


There are two major sections in this book. One deals with the science of human movement, describing in nontechnical terms the analysis of selected skills, factors which contribute to or inhibit movement, and consideration
from research in growth and development. The second section presents various kinds of movement activities for children by grade level. Each activity listed includes a behavioral goal, a concept which is involved, biologic efficiency to be utilized and the specific movement skill.


The main thrust of this book includes reexamination of current practices regarding present curricular structures, the role of athletics in education, and recognition of the growing body of knowledge in physical education. The author presents a rationale for change including a new title for the field, "kinesiology" or "kinesis" to represent a new and broader approach to the study of man as a moving being and the study of movement. The author includes suggestions for implementing such a program.


Five different systems of educational theory are discussed in some depth, including statements from leading exponents and bibliographical information of each. Special reference is made to notions about human nature, values, characteristics of reliable knowledge, and learning principles. Application of each theory is made to schooling of children and adolescents according to aims, curricula, and method advocated.


This book attempts to answer the recent criticisms of education through a positive, systematic approach to ways in which schools can change to become more humanistic and humane. Two aspects of humanistic education are dealt with: teaching subject matter in a more human way; and educating the affective aspects of the student so that he understands himself and others and can relate to others. The author discusses conditions for learning and proposes some necessary changes.


The process of valuing which is presented here can be used by faculties, teachers, and students to clarify thoughts and feelings related to education, social interaction, goal setting, occupational choice, etc. The material as presented is designed to utilize the subprocesses of prizing, choosing, and acting as a means of bringing belief and action into closer harmony. Many different kinds of strategies are included as examples, with alternate topics for discussion.

This pamphlet identifies some of the alternate approaches in education already in existence in New York State, and deals with questions pertaining to alternative/traditional programs, acceleration of the change process, open education and career education, and programs for college bound students. Discussion of options in education rather than alternatives comprises a major portion of the pamphlet, including characteristics of truly optional programs: the element of choice is present; must represent an integrated total program; must have a significantly different curriculum with involvement of parents and students; and may operate in separate facilities using community resources, be individualized, problem centered and learning oriented. Guidelines for approval of major optional programs are included.

**SPECIAL EDUCATION**


Presently the most comprehensive text for developing an adaptive and/or corrective physical education program for the physically handicapped child.


Physical activities with detailed explanations are presented by levels:

- **Level 1 - Basic Movement Patterns**
- **Level 2 - Activities of low organization in which patterns, movements, and skills developed at the first level are applied to increasingly complex situations.**
- **Level 3 - Adapted and lead up activities in which patterns, movements, and skills are used for the express purpose of preparing the individual for participation in specific sports, games, and higher organized activities.**


This service provides information and assistance such as: 1) resource lists of outstanding programs or observation sites; 2) resource lists of personnel who may serve as speakers, consultants, or demonstrators; 3) summaries, abstracts, articles, and other materials.


While the information in this book basically is recreational in nature, many gross motor activities are included.

This guide presents developmentally sequenced motor skills and instructional activities appropriate for handicapped children from one and a half years to adulthood.


This book offers a variety of gross motor and physical fitness activities for the physically handicapped. One section is devoted to gross motor academic games.


Fine and gross motor activities and recreational activities are presented. This book is well organized with many excellent ideas. A brief history of historical and contemporary perceptual theories is included.


Set of activity cards in the areas of body awareness, coordination, agility, strength, flexibility, balance, and creative movement. A teacher's guide is included.


Presents many motor activities in developmental sequences. A noncategorical approach is utilized that emphasizes the individual's functional levels in the cognitive, affective, and psychomotor areas rather than a person's handicap.


This book discusses perceptual-motor learning through questions which are raised about behavior in children, through understanding of how children learn, and through review of research literature. A second part of the book presents large and fine muscle screening instruments, plus an annotated list of various kinds of tests. Part three is concerned with developmental activities for the classroom and playground. An appendix of teaching materials is included.

This book compiles activities from many texts in the field of elementary games and physical activities for the handicapped. A good reference for activities but little new information for physical education programs for the handicapped.


These proceedings present perceptual-motor activities for children with emotionally, intellectually, socially, and/or physically handicapping conditions. Information on physical fitness, aquatics, gymnastics, lead-up games, and recreation activities are also presented. Format is mainly in outline form with an abundance of usable ideas.

Physical Education for the Exceptional Child.
Albany: State Education Department, Curriculum Development Center, 1970.

General considerations and specific motor and physical activities for teaching physical education for specific handicaps. This book is very general.

OTHER SERVICES

SEIMC (Special Education Instructional Materials Center), Albany, New York: 55 Elk Street, State Education Department, 12234.

This service provides materials and/or equipment on loan in the areas of 1) Montessori materials, 2) instructional materials for the area of perceptual-motor development, 3) physical education materials, 4) instructional materials for the curriculum area of visually handicapped, and 5) records. Also, films specifically dealing with special physical education are loaned free of charge.

EPSIS (Educational Programs and Studies Information Service), Albany, New York: Room 330, State Education Department, 12234.

EPSIS coordinates the New York State Curriculum Laboratory, ERIC microfich. reproduction service, and an ERIC computer search service. The Curriculum Laboratory is a research and resource facility for use by Education Department personnel and New York State teachers, administrators, and curriculum workers. The ERIC Service provides abstracts and microfiche copies of ERIC (Educational Resources Information Center) documents, free to New York State educators. The ERIC Pilot Computer Search and Retrieval Program allows individuals to request searches of documents cited in the two ERIC journals, Research in Education and Current Index to Journals in Education.