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ABSTRACT

This is a compilation of articles selected from American Alliance for Health, Physical Education, and Recreation publications and conferences 1970-76 in which elementary school physical education issues are identified and explored. Articles address research, practice, and theory in the areas of: perspectives for elementary school physical education; curriculum alternatives; developmental concerns; physical education for special populations; instructional ideas; play and playgrounds; sports and competitions for children; and professional preparation. (MM)

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PRESIDENT'S MESSAGE

Among its many concerns, the American Alliance for Health, Physical Education, and Recreation has been especially attentive to physical education in the elementary school. Our belief in the value of that program has been manifested through publications, staff services, conferences, convention programs, and interaction with outside organizations which are also concerned with the elementary school child. The zest and zeal of our members, whose province of interest lies in this area, is contagious. One need only be with the "elementary school group" for a few minutes and without realizing what has happened, you have caught the spirit. It is a caring, exciting, productive spirit. *Echoes of Influence* is an overt example of that spirit. It brings together some of the best that has been written and said about physical education in the elementary school since 1970. It echoes the influences that are being felt as our members make themselves heard in the arena of action. May such echoes continue to bounce and resound so that our influence will be a clarion call in the schools of our country.

Celeste Ulrich

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FOREWORD

The Elementary School Physical Education Council thought it would be a significant project to revise the 1968 edition of *Promising Practices in Elementary School Physical Education*, one of AAHPER's more popular publications. In the course of the project it became evident that the concept of "promising practices" was too restricting in focus for a revised book. Many of the ideas emerging in association publications, from which this new publication would draw, were broad in scope and theoretical as well as practical. Thus, it was decided to start a new publication series which would periodically "echo" the thinking of the leaders of the time.

The Council is indebted to all those who were responsible for the development and completion of this project. We believe that this publication will be an excellent resource for anyone interested in physical education for children. We are pleased to present the 1977 edition of *Echoes of Influence for Elementary School Physical Education*.

Kate R. Barrett
Chairperson, ESPEC
1976-1977

Other members
Mae Timer
Marion Sanborn
Dick Burnham
John Fowler
Elsa Schneider
Margie Hanson

PREFACE

Throughout the 1970s, there has been increased interest in the improvement of physical education in the elementary school. The ideas being generated are provocative as well as functional. This book is a collection of such ideas. It includes selected papers and articles from AAHPER conferences and publications since 1970 in which contemporary issues are identified and explored. Research findings are presented and different points of view about many topics are projected. While several practical ideas for physical education programs for all children are included, particularly in Sections IV, V and VI, the book goes beyond the practical to represent different priorities in physical education for children, different philosophical commitments and different interpretations of what those commitments mean in practice. Therefore, I believe that this publication is an indicator of the state of elementary school physical education in the early 1970s.

There are several conceptions of what elementary school physical education is, with many approaches. A very large number of professional people in a variety of capacities are genuinely concerned with seeing that children get the best possible physical education. It is left to each of us to select the approach that most appropriately fits our philosophy. Then we must strive to be consistent with that philosophy, not only in the kinds of learning situations we create for children, but in the kinds of situations we courageously eliminate. The alternatives for elementary school physical education must be thoughtfully considered and carefully selected if quality programs are to be achieved. We must get past the "right way" and "wrong way" argument and begin to develop programs that can be supported with a rationale that includes what we believe about the nature of children and what we believe is, or should be, the nature of physical education in elementary schools.

The selection of materials for this publication was definitely a group effort and I want to express publicly my gratitude to Brenda, David, Joy and Bob for their sincere interest in the project and their unqualified dedication. I am particularly grateful to Dr. Peter Werner of the University of South Carolina, Columbia, who was responsible for much of the initial groundwork. Acknowledgement should be given also to those members of AAHPER who, through their speeches and articles in Alliance publications, contribute to our growing knowledge and stimulate our thinking, thereby improving physical education for children. Without those voices, *Echoes of Influence* would not have been possible.

Marie Riley
Editor

Perspectives for Elementary School Physical Education

Essentials of a Quality Elementary School Physical Education Program

A Position Paper[1]

Donald Brault, Madison Public Schools, Madison, Wisconsin*
Madeline Boyer, San Francisco State College, San Francisco, California*
Ambrose Brazelton, State Department of Education, Columbus, Ohio
Herbert C. Karsten, Willard Elementary School, Minneapolis, Minnesota*
Sal E. Abitanta, State Department of Education, Trenton, New Jersey
Mary Ellen Rekstad, Towson State College, Towson, Maryland
Elsa Schneider, (liaison), U.S. Office of Education
Naomi Allenbaugh, (liaison, Physical Education Division), Ohio State University
Margie Hanson, (liaison), AAHPER
**Member of Editoral Subcommittee*

A number of recommendations and position papers from the Association are represented in this document, with modifications where necessary to reflect what may be considered the contemporary thinking about physical education. Other statements were developed as new beliefs which were thought to be essential to the continuance of quality programs of physical education in the elementary school of the future.

The document was reviewed by participants at three national meetings sponsored by the AAHPER: the National Conference for Teachers and Supervisors of Elementary School Physical Education, the National Conference of City and County Directors of HPER, and the Physical Education Division Workshop which was part of the 1969 AAHPER Convention held in Boston, Massachusetts. The final document was approved by the AAHPER Physical Education Division Executive Council and by the Board of Directors of the American Association for Health, Physical Education, and Recreation.

Foreword

Physical education is one of the most rapidly developing curricular areas in the elementary school program. The need of providing learning experiences in physical education to children has become universally recognized and significant changes are taking place in the content and teaching strategies of this field of study.[2]

When properly guided and developed, physical education becomes a purposeful and vital part of the children's elementary school education. It aids in the realization of those objectives concerned with the development of favorable self-image, creative expression, motor skills, physical fitness, knowledge and understanding of human movement.

In a very real measure, the degree of success the elementary child experiences in his work and play is influenced by his ability to execute movement patterns effectively and efficiently. For the child, movement is one of the most used means of non-verbal communication and expression. It is one of the important avenues through which he forms impressions about himself and his environment.

In some observable and learned form, movement underlies nearly all of man's accomplishments. The child, to become a fully functioning individual, needs many opportunities to participate in well-conceived, well-taught learning experiences in physical education. To achieve this objective, the essentials of a quality program of physical education for the elementary school need to be identified.

A Point of View

Physical education is an integral part of the total educational program. As such it must seek to contribute to the overall goals of the educational program of which it is a part.

Though these purposes and goals are often broadly conceived and include concern for the cognitive and affective fields, as well as for the psychomotor, they should serve as guidelines for determining the kind of physical education program offered in the elementary school.

In the continuing quest to make learning more relevant and personal to the child — and to realize more fully the goals of physical education — new developments in learning theories, structure of subject matter, and behavioral objectives must be constantly considered, evaluated, and implemented.

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[1] This position statement was prepared to assist teachers, administrators, and curriculum planners in general to determine direction and focus for their efforts in developing programs of physical education in elementary schools. It was developed by the Elementary School Physical Education Commission of AAHPER's Physical Education Division.

[2] *Promising Practices in Elementary School Physical Education*, AAHPER (Washington, D.C., 1969).

Statement of Beliefs

The Child

We believe:

1. Each child is a unique individual with differing physical, mental, emotional, and social needs.
2. Every child has the need and right to benefit from physical education experiences.
3. Through the teaching of carefully planned movement experiences the child:
   a. learns to express his understandings of himself and his environment
   b. becomes more proficient in movement skills which allow him to participate more fully in a variety of life experiences.
   c. improves in muscular strength, endurance, flexibility, agility, balance and coordination, and in his knowledge and understanding of how these factors relate to life-long physical fitness.
4. Each child should have continuous learning experiences in physical education each year he is in school.

The Teacher

We believe:

1. Teachers of elementary school physical education must understand human movement, child growth and development, current learning theories, and be able to work effectively with children.
2. A qualified elementary school physical education teacher should be an involved and contributing staff member of the elementary school.
3. To assure that the most meaningful learning takes place, both the physical education teacher and the classroom teacher should work together to develop an understanding of the children and, through this understanding, should provide a program which is commensurate with the children's needs. Although the physical educator assumes the primary role in conducting the program, it is essential that he regard himself as one part of the total educational process.

   When classroom teachers teach physical education it is imperative that they be provided with regular leadership and guidance from resource people who are qualified by education and experience in elementary school physical education.
4. In schools where differentiated staffing patterns are practiced, the value of auxiliary personnel to assist the physical education teacher should not be overlooked.
   a. The use of teacher aides and paraprofessionals as supporting staff can do much to create effective and purposeful teaching teams in physical education as well as in other subject areas.
   b. The unity of purpose and program can be enhanced when staffing patterns permit all teachers, including the physical education teacher, to plan and evaluate (and sometimes teach) as a team working toward common goals.
   c. Guidelines for the utilization of professional personnel (including the use of differentiated staffing) should be developed jointly by the physical education teachers and the school administration.

Teacher Preparation

We believe:

1. Professional education background for the physical education teacher should be developed upon a liberal arts base of the humanities, social sciences, physical sciences and biological sciences. Professional preparation courses should include:
   a. study of child growth and development with an emphasis on motor development and learning.
   b. study of the nature and function of human movement.
   c. study of learning processes and factors that facilitate learning, and teaching strategies as they relate to learning outcomes.
   d. study of development of curriculum to include movement experiences appropriate for all elementary school children.
   e. study of early childhood an elementary school curriculum as a phase of continuing education.
   f. directed laboratory experiences focusing on learning to critically observe the movement of children in an elementary school.[3]
2. Preparation for the classroom teacher should include an understanding of the relationship of physical and motor development to the total learning experience of the child. Course work in movement skills, methods, and content of elementary school physical education should be required. Laboratory experiences in working with young children in physical education are essential.
3. In-service opportunities should be provided frequently for all personnel concerned with physical education programs for children.
4. It is imperative that teachers of classes concerned with preservice and in-service education in physical education have had successful recent and continuing work with children.
5. Participation in local, state, and national organizations should be encouraged as a means of keeping informed of trends, issues, and new developments in the profession.

Instructional Program

We believe:

1. A well-conceived and well-executed program of physical education will contribute to the development of self-directed, self-reliant, and fully functioning individuals capable of living happy, productive lives in a democratic society.
2. A comprehensive physical education program for all children has as its foundation a common core of learning experiences. This common core of learning is concerned with efficient body management in a variety of movement situations. It serves the divergent needs of all pupils — the gifted, the slow learner, the handicapped, the culturally deprived, and the average — and is geared to the developmental needs of each child.
3. The program must be planned and conducted to provide each child with maximal opportunities for involvement in situations calling for mental, motor, and emotional responses which will result in optimal and desirable modifications in behavior: skills, knowledges, and attitudes.
4. A variety of learning experiences should be planned and carried out to emphasize the development of basic concepts, values, and behaviors associated with the ultimate goal for the physically educated person.
5. Curricular content should be so organized that levels of learning in

[3] *Professional Preparation of the Elementary School Physical Education Teacher*. AAHPER (Washington, D.C., 1969).

attitudes, understandings, and skills are recognized and can take place in a sequential and developmental arrangement.

6. The instructional program should be designed to: (1) encourage vigorous physical activity and attainment of physical fitness; (2) develop motor skills; (3) foster creativity; (4) emphasize safety practices; (5) motivate expression and communication; (6) promote self-understanding and acceptance; and (7) stimulate social development. It should include such experiences as basic movement, dance, games, practice in sport skills, stunts, and tumbling work with large and small apparatus. When possible, the program should include aquatics. Each must be so structured that it is interrelated with the others, permitting children to generalize from one learning experience to the next.
7. To deal effectively with the whole child, many styles of teaching must be brought to bear on the learning situation. These include both teacher-directed and self-directed learning. If learning is to be personalized and concerned with the cognitive and affective domains, problem-solving as a teaching strategy becomes vital.
8. To foster the development of generalizations and key concepts, a range of instructional aids as well as teaching styles must be employed. Innovative use of audio-visual materials, large and small group instruction, individual help, and interdisciplinary approaches must all be considered.
9. Opportunity should be provided for participation in organized intramurals and such extramural programs as play days and sports days. These should be designed to serve the purpose of the class instruction phase of the program.

Evaluation

We believe:

1. Evaluation must be a continuous and vital part of the physical education program. It is used to determine and clarify instructional purposes and to assess individual pupil progress in achieving program objectives.
   a. It is essential in the guidance of children toward the attainment of acceptable goals and in motivation of children and teachers to bring about needed improvement.
   b. It provides the basis for assessing the behavioral response of the learner in relation to the planned learning experience and the development of learning experiences to follow.
   c. It should be utilized as one means of interpreting the program to parents and the community in order to provide for a better understanding of educational values and outcomes.
2. A variety of evaluative techniques should be used for determining individual differences and needs of elementary school children. Such techniques should include the use of teacher observation, class discussion, knowledge testing, anecdotal records, motor skill, and physical fitness assessment. The results of the use of these techniques should be interpreted in light of the local situation rather than solely in relation to national norms. It is more important to compare the records of the child's progress than it is to consider the child's rank in relation to other children.
3. Children need to be directly involved in their own on-going evaluations of themselves, their groups, and of the program in relation to the realization of specific behavioral objectives.

Time Allotment, Class Size, Teaching Load, Dress

We believe:

1. Pupils in elementary school should participate in an instructional program of physical education for at least 150 minutes per week in addition to time allotted for free and/or supervised play.
   a. To best serve the activity needs of children, a daily program is recommended.
   b. The length of the class period must be appropriate to the instructional purpose of the lesson and to the needs and maturation of the learner.
   c. The time allocated of instruction should be exclusive of time allotted for dressing, showering, recess, free and/or supervised play periods, and noon-hour activities.
2. Groupings for instruction in physical education should be appropriate to the objectives of the lesson being taught, and they should be ordinarily consistent in size with those of other subject areas and/or self-contained classes.
   a. Opportunities for individualizing instruction should be of primary concern in determining class groups.
   b. Class groupings must be flexible enough to provide for differences in interests, levels of maturity, size, abilities, and needs.
3. Consideration of the teaching load is crucial to effective, high-quality teaching. Personnel responsible for scheduling must consider the following factors:
   a. The number of different classes assigned to a physical education teacher in a day is a better criterion for determining teaching load than is the number of hours he teaches.

      For example: The teacher who is teaching 10 or 11 classes in a school day of approximately 5½ hours has a greater load than the one teaching 6 or 7 classes in the same period of time. Planning for and adjusting to a new class every 30 minutes is far more demanding than changing groups every 45 to 50 minutes.
   b. Group or class scheduling should be planned to minimize equipment changes from one class to the next (e.g., scheduling all primary classes in a block of time). It is desirable to leave several minutes open between classes to enable the teacher to talk to individual students, make teaching notes, or confer with the classroom teacher.
   c. The physical education teacher needs time to *plan* his program; *coordinate* the total program; *consult* with teachers, principals, other resource teachers, and parents; and to *work* with children needing additional help. Teachers who travel between schools during the day should be given special considerations to assure that they can function effectively as members of the teaching teams in the schools to which they are assigned.
4. Pupils and teachers should be appropriately dressed for the types of activities being conducted in the physical education class. Concern for freedom and quality of movement, as well as for safety, should influence the type of attire worn.

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[1] *Knowledge and Understanding in Physical Education*, AAHPER (Washington, D.C., 1969).

Equipment and Facilities

We believe:

1. Boards of education, through their regular school budget, should provide:
   a. sufficient funds for the maintenance and purchase of supplies and equipment.
   b. adequate facilities and equipment for school and community use.
2. Standards for the purchase of supplies and equipment should be developed jointly by the physical education teachers and the school administration.
3. All children should have many opportunities to participate in physical education activities; a goal of one ball, one rope, etc., per child is realistic for a physical education class. If children are to be physically active and fully experiencing the learning situation, ample equipment and supplies for each child are as essential as pencils and books in the classroom.
4. Sufficient indoor and outdoor facilities, equipment, and supplies should be provided in each of the elementary schools (e.g., adjustable apparatus which provides for climbing, swinging, jumping, crawling, hanging, and balancing).
5. School and community facilities and programs should be planned and used to supplement each other in serving the needs of children.
6. Blacktopped areas should be properly marked with circles, lines, courts, etc., to permit participation in a wide variety of activities appropriate for various age levels. Play spaces should be designed to permit creative and exploratory types of play. Apparatus should be selected (or created) for its developmental and educational value.[5]
7. Plans for new physical education facilities are the responsibility of the community as well as the school and should be developed in cooperation with physical education teachers, principals, and other resource persons. Personnel involved in planning should be guided by recent developments in instruction as well as construction.[6]

School Related Programs

We believe:

1. The physical activity needs of elementary school age children can best be served through a program of instruction in physical education which is supplemented by other opportunities for participation that are provided by school, home, and community.
2. The school-related program should provide opportunities for further development of knowledge and skills gained in the instructional physical education program during such periods as recess, noon hour, and extended school-day programs. The program should be differentiated in content and organization to provide for the unskilled child as well as the skilled performer.
3. Extended opportunities for continued participation in sport-type games, dance, gymnastics, and other activities should be offered in the intramural program for all boys and girls. This program usually starts in grade five as the desire for competition and group identification begins to emerge.
4. Competition at the elementary school level is a vital and forceful educational tool. Properly used it can stimulate a keen desire for self-improvement as well as create environments in which children, motivated by common purpose, unite in an effort to accomplish goals in a manner not unlike the roles they will play as adults in a democratic, competitive society. However, to be beneficial, competition must be success-oriented for all children and relevant to the school program. Carefully structured competitive experiences within the school, involving individual and group opportunities and developed and conducted to achieve specific behavioral objectives, are usually more congruent with elementary education goals than inter-school competitive programs.[6]

   If there is a desire to develop a program of inter-school athletic competition for upper elementary school children, it should be considered carefully within the context of relative educational value for children of this age.[7] Such consideration should follow only after a sound physical education program has been provided for all the children in the elementary school as well as an intramural program for the upper elementary grades.

[5] *Physical Education for Children's Healthful Living*, Association for Childhood Education International (Washington, D.C., 1968).

[6] *Planning Areas and Facilities for Health, Physical Education and Recreation*, Athletic Institute and AAHPER (Chicago, 1965).

[7] *Desirable Athletic Competition for Children of Elementary School Age* AAHPER (Washington, D.C., 1968).

Elementary School Physical Education: The Base of the Profession A Challenge for the 70s

Margie R. Hanson, Elementary Education Consultant, AAHPER

Elementary school physical education is the basis of child development and thus the profession. We have always believed this, but never truly had much opportunity to implement the thought until the past decade. Only recently have we become of age, both in theory and practice, and in the 1970s our Association should have an unprecendented opportunity to take further action on this belief. What we as members of AAHPER do for children at this golden moment may very well determine the whole future of the profession.

Past Philosophy and Practice

Historically, children in many of our schools have been victims of the Puritan work ethic philosophy that play is frivolous and only a reward to be given when all other work was done, or as a means to release energy after long periods of sitting. Most schools have provided some kind of physical education, but an examination of many of these programs reveals them to be ill-planned, poorly taught and of limited value. We have been our own worst enemy, perpetuating a stereotyped image of a circle games program, push-ups and jumping jacks, or the inevitable relays with only four children moving and the rest waiting their turns in long lines. One might charge that it is because classroom teachers and not physical education teachers have been responsible for the program, but let us ask ourselves who taught the classroom teacher. Our profession has not taken the teaching of that course seriously enough. For years it has been our only vehicle for reaching classroom teachers, most of whom become principals, administrators and parents. One should not point the finger at professional preparation only. What kind of program did that classroom teacher himself have as a high school or elementary student? What is his view of physical education's role in the curriculum?

True, there have been, and are, numerous excellent programs throughout the United States focusing on a broad and varied program with an emphasis on fundamental motor skills, as well as appropriate human relationships. But even where such programs exist, that is one of the first classes to be eliminated from the child's week if there are conflicts in the schedule. The so-called traditional "basics" must come first. Why does this happen? Again we have been our own enemy in failure to identify the broad contributions to development, and to interpret them properly to classroom teachers, administrators and parents. We tend to focus solely on the objectives of fitness, fair play and skill development for specific sports, and do a poor job of interpreting those objectives. These practices, or lack of them, limit the image of the profession and children become the losers as budget and personnel are cut back in periods of economic stress. Certainly, the profession has experienced this in recent months.

Loss of Programs

Already the requirement has been lost in many colleges across the country. It has also been lost in a number of secondary schools — especially at the eleventh and twelfth grade levels. How much further this erosion at the secondary level goes, depends largely on the new activism of the secondary school student and his demands. The budget is not the sole influence at those two levels. Have we failed in making significant curriculum changes, providing him with a satisfying and challenging experience, while at the same time interpreting vigorously and in a meaningful manner to the student who very soon becomes a parent and votes for or against the school budget?

Factors that Promote Physical Education

It is interesting to note that during the recent budget crisis of the schools, many elementary schools are *not* losing their physical education teachers. In fact, several cities, districts and states are adding in the fall of '71, e.g., Minneapolis is adding 10 and Milwaukee is adding 17 teachers, while the educational system of Hawaii is negotiating to add elementary physical education teachers throughout the state. Thus, the factor of negotiation is operating to keep and/or add elementary physical education teachers as classroom teachers strive to obtain a reasonable daily class load.

Other factors are also present which are helping elementary school physical education gain new status in the school. First and foremost, there is a new look at the total elementary curriculum — wherein the leaders are saying that the arts and humanities, (the so-called "frills") of art, music, dance, drama, physical education, should really be the central focus of curriculum for better results as education examines itself to ascertain why so many children cannot read, why they fail, why they dropout both literally and figuratively.

The fact that the schools have not been responsive to the needs of all the children has been singled out many times by non-educators, for example John Holt in *How Children Fail;* Silberman in *Crisis in the Classroom;* Leonard in *Education and Ecstasy;* et al.

Educators are currently concerned also that the focus on "accountability," technological hardware and "systems of learning" may drive us even further to depend on memorization, drill, rote learning and objective testing to the point where more and more children will slip into the category of failure. We now know that failure often creates more failures. Striving to meet the goals of a test motivates the able child but usually discourages the less able.

Thus, in an attempt to vitalize learning for all children, there is an increasing focus on the affective domain and its contribution to helping children develop a good self-image so that they want to learn. Learning how to learn and being successful is as important a concept to these leaders as the facts needed to be accountable. One can quote such experts as Dr. Evelyn Carswell, formerly of the NEA Center for the Study of Instruction; Dr. Robert Fleming, noted elementary curriculum expert; Dr. Madeline Hunter, distin-

Speech given at IAHPER Convention, Des Moines, Iowa, April 30, 1971.

guished principal of the University of California at Los Angeles Laboratory School; Dr. Mary Moffett, Early Childhood expert from Queen's College, New York; Robert Glasser, of the Institute of Reality Therapy; and numerous others.

The "Learning How to Learn" objective has also provided elementary school physical education with a real opportunity because our leaders have been identifying new methods and techniques which focus on problem-solving, inquiry, discovery, creativity, and working for success in a way that we have never done in the past, and the profession is ready to be a part of the team and not something "apart from." The philosophy which is currently developing in elementary school physical education is very compatible with that in elementary education and readily accepted by classroom teachers.

Elementary educators are also concerned with the development of concepts and are looking at dance, drama, art, music and physical education as a real means of helping to develop concepts. Movement as a medium for learning other things besides psychomotor skills provides a very real opportunity for the profession to contribute to total curriculum. For example, look at a few copies of the periodical *Young Children* put out by the National Association for the Education of Young Children, and note the articles which refer to movement as a vehicle for learning, or read the many articles on play published by them and by the Association for Childhood Education International. Such schools as Northern Illinois University in DeKalb, and Towson State College in Maryland offer a course for early childhood teachers in which art, science, math and physical education are integrated by asking each discipline to plan lessons around a single concept such as balance or force. It is team teaching with a focus on concepts.

Consider the potential of physical education for experiencing concepts such as: line, direction, force, space, gravity, et al. Physical education provides still another medium for integrating with classroom activities such as math, reading and social studies. Read Humphrey's work from the University of Maryland for support and ideas in this approach. Are you aware of the interesting sport called "orienteering" which combines map reading, compass work and cross-country running? It should be ideal to begin in the fifth or sixth grade. Capitalizing on movement as a medium for learning may provide a very creditable reason for being a part of the daily curriculum.

Still another factor operates in favor of elementary school physical education. More and more educators are interested in a multidisciplinary approach and the team effort to help diagnose, prescribe and teach. Thus the look at motor activity as a potential means for helping the child with learning difficulties has reached "steam-roller" proportions with the advent of perceptual-motor programs for such children. Little is known about the role of motor skills in perceptual development. Research lags theory and theory actually lags practice in this phenomenon. Thus, it is important that the profession continue a concerted and scholarly effort to examine the cause and effect relationship as well as to provide appropriate help to those practitioners who need it and are asking for it. Our profession is very prone to climb on bandwagons that may look as if we will advance our "academic" image. It should be our concern to make sure that the academic image be enhanced by examining thoroughly and not by overclaiming, while at the same time theorists and practitioners work side by side to validate the program. The era of the 70s promises to be a most significant decade for a scholarly examination of the contribution of physical education to perception and learning.

Proudly we can say that significant changes have taken place in curriculum for elementary school physical education. This is sharply reflected in the new books and revisions of old books since 1965 as well as at conferences, clinics and convention programs. It is also very evident in the film titles in the same period as well as the number of television series done both locally and nationally. What is this new look? It can be best illustrated by examining the following schematic drawing of a tree with the treetop supported by roots anchored in basic movement and a strong trunk of fundamental skills, followed later by the specialized skills which lead to efficient movement for participation in the cherished cultural sports, as well as all daily work and play activities.

Thus, the new look with a focus on foundations is not a substitute for the old, but rather an extension and an enrichment. It serves as evidence of the continued efforts of the profession to identify its real contribution to motor development. It is also coupled with a new look at method -- more individualization, much more activity for each child, as well as a focus on problem-solving technique. Directed teaching is still part of good teaching, as it is an important step in problem-solving. It merely comes later in the teaching process.

It is up to us as professionals to incorporate the new look at method, and to identify and interpret total contribution to learning as well as the relationship to the affective domain. However, if we focus solely on these limited objectives, we as a profession may relinquish to paraprofessionals.

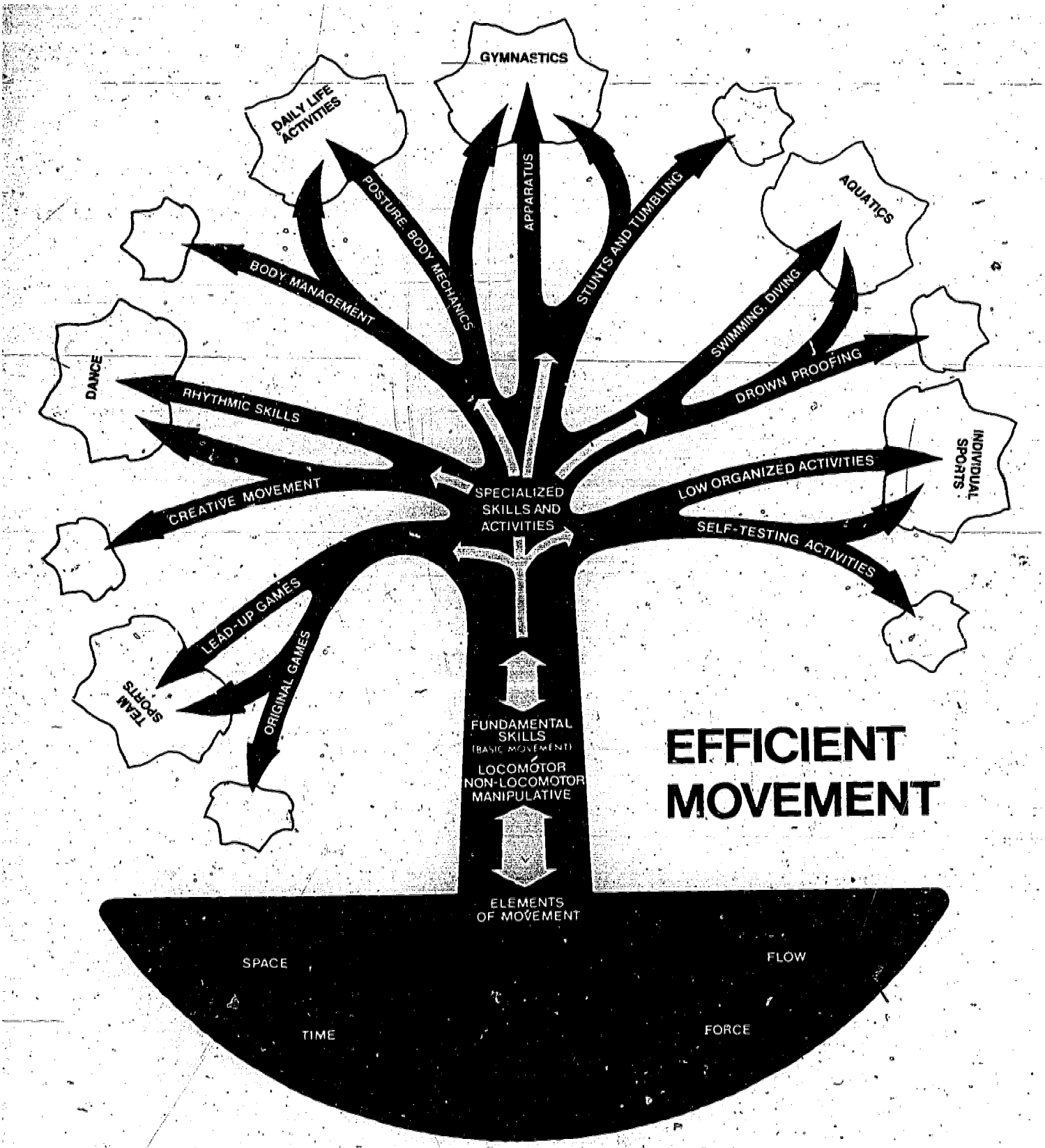
Little has been said here about fitness and sports skills as prime goals. They are by no means omitted or of lesser importance than other goals. They are central and unique to physical education and become more important than ever as we face an era of tremendous population explosion, increased automation, and a more urbanized society.

Semantics

True, there are semantic difficulties and some controversy as we hear such words as "movement exploration," "basic movement," "movement education," "the traditional approach," "the new look." However, one can regard this as a sign of a profession that is very much alive examining itself, subjecting itself to controversy, striving to interpret and eventually coming forth with a more scholarly and sophisticated approach to physical education than ever before.

Pre-School

One might conclude that the elementary level is the basis for the profession, but that would be a very limited statement as we move into a great surge of interest in the preschool. Right now, the entire nation is focusing sharply on this age level, largely as a result of examining the welfare program to find ways to let mothers go back to work. The success of Head Start has also been a great stimulant to interest in this area. Since the present welfare dole system has become an insurmountable problem, Congress is looking very closely at the possibility of letting the mother go back to work, which necessitates some way to care for children of preschool age during the day as well as elementary children after school hours. Such programs have numerous implications



*Note: This tree is not to be reproduced without credit to the author, Margie R. Hanson, Elementary Education Consultant, American Alliance for Health, Physical Education, & Recreation.

for the profession. First, there will be a demand for the help of our professionals in after-school programs. In addition, advice will be sought on designing facilities, play and playground equipment. Furthermore, there is an increased interest in the contribution that motor development can make to child development. There will be a central focus on the health of the child. Thus, our profession has an unprecedented opportunity to be part of this new development right from the beginning if we respond to the opportunity both as teachers in public schools and as professional preparation personnel. Research does reveal that the infant and early childhood years are critical in the development of attitudes, skill beginnings and a desire to learn. Controversy exists over the nature of appropriate preschool programs, but let us be a part of the whole thrust.

A national conference was held last February cosponsored with the National Association for the Education of Young Children; the Elementary School Physical Education Commission has appointed a subcommittee and is conducting a survey; the Dance Task Force has been invited to participate in the planning of a USOE Conference to be held in Washington, DC in July 1971 on the role of the arts and humanities in preschool programs.

As was said on a nationwide telecast recently, entitled *Children*, "Fewer branches of science offer us any more help than the study of children." AAHPER has an opportunity to make a unique contribution to this study.

The Base of the Profession

Thus it is evident that preschool motor programs and elementary school physical education are the bases for good physical education programs. For example, the broad foundations for movement should really be provided in early childhood and some specific skills well-formulated by age nine. If not, a young boy will already be rejected by his playmates. Little girls may not suffer an early rejection because of lack of motor skill, but surely it becomes increasingly difficult for them to learn as time progresses. Witness how hard it is to teach a good overhand throw to junior high, senior high and college girls. Think how many students "hate gym" at senior high and college — one reason may be lack of adequate foundations. Recreational activities are chosen in later life largely on the basis of skills developed in childhood and youth. If, then, we believe in promoting motor activity for recreation, for good health, and for a lifelong feeling of physical, emotional and mental well-being from exercise, a broad range of skills and good dynamic movement must be developed early. Safety of a child and an adult often depends on his skill in managing his body in a variety of situations, both in sport and daily life.

Surely the coach is looking for a large number of youngsters with well-developed skills. Hopefully the basic movement, foundation approach will develop more children with a good background in all movement more ready to learn the highly specific skills of a chosen sport. Most coaches would believe that the only way to create a superior basketball player, swimmer, or gymnast is to start training them young and very specifically. This may be true. However, one must carefully consider the purpose of an elementary school which is to provide a broad foundation in a total curriculum. Does anyone have the right to make youngsters focus on specific sports at the sacrifice of a varied program? It is conceivable that such a child will be an adult "movement illiterate," not easily ready to learn new skills for a lifetime pursuit of physical activity. For how long a period in life can the average adult play team sports?

The old argument about whether or not transfer takes place seems to have shifted to questions about the nature and conditions of transfer. Some recent studies on transfer seem to support a Gestalt concept of transfer — that varied training encourages transfer and that learning how to learn is an important aspect of transfer. As a matter of fact, the word "transfer" is disappearing from the latest literature, and such words as "sequential development" and "performance" are substituted. Thus it is believed that a broad, generalized program of foundation of movement is appropriate for elementary school and would make the child more proficient, more teachable and more "ready to learn" the specifics of a highly-developed activity at the appropriate time in junior and senior high school.

Dance is an integral part of a good physical education program. It has a movement base just as do all other activities. However, there is an added dimension of the aesthetic-rhythmical components of movements which is special to dance. Today's leading educators believe that more emphasis should be placed on the aesthetic values of life and an effort is needed to redirect the focus of the populace from materialistic, technological goals to aesthetic goals that enrich the quality of life. Thus one can say that elementary school physical education is the base of the entire profession.

Challenges for the 70s

Our challenges are many for the 70s. With the increasing demand for elementary school physical education teachers, professional preparation institutes have an immediate responsibility to turn their attention to appropriate preparation for this level. It will also continue to be important to provide the best help possible for the elementary education major, as it will be many years before the colleges can provide an adequate number of trained personnel and before all school systems will be able to afford or be willing to hire specialists.

In-service clinics, conferences and workshops, not only for public school personnel but also for teacher preparation personnel, will remain a critical need throughout the 70s. It will continue to be important to help the classroom teacher, also.

Interpretation must become more sophisticated and elucidate the goals of aesthetic development, learning how to learn, knowledge and understanding, concept development, and all those related to total development of a child, as well as fitness and sports skills.

Our methods of evaluation must reflect all of the above contributions as well as the usual performance goals. Fitness Tests and a few sports skills tests are not sufficient tools for evaluation. Learning how to observe children — a grossly neglected area of our professional preparation — needs much attention.

We need also to focus on infants and early childhood, as a tremendous opportunity exists for the profession to cooperate with early childhood personnel, architects, designers, child psychologists and many others in this newly-developing national interest.

Research on college students and white rats is not sufficient basis for drawing implications for children's programs. Let's research children, their skills, ideas, feelings and programs for them.

Multidisciplinary efforts are essential. We have talked to ourselves long enough. We will improve programs for

children only as fast as we seek cooperation and understanding with other groups and work with them, rather than vie for time in a day's schedule. Let us seek out the preschool leaders, the teachers, the administrators, music, dance, drama, art, the child psychologists, the human development specialists, the school nurse, the guidance counselor, the elementary education personnel, and join together in a united effort for children.

AAHPER Efforts

The Association has moved forward vigorously in its efforts by supporting several structures to help in this thrust, such as the Elementary School Physical Education Commission, the Task Force for Children's Dance, the Perceptual-Motor Task Force, Lifetime Sports Elementary Clinics, the President's Committee on Child-Related Programs, the K-4 Skills Progression Project, and the Outdoor Games Project. In addition, the Professional Preparation Panel has been most helpful in the production of the pamphlet on the preparation of the elementary physical education specialist and supportive of the forthcoming conference.

Numerous projects, conferences, clinics and publications have been produced by the Association. Funds have been provided for traveling by the consultant to work with various state and district projects, clinics and conferences. Active and meaningful liaison has been established with such groups as the Association for Childhood Education International; the American Association of Kindergarten, Nursery and Elementary Education; the National Association for the Education of Young Children; the NEA Early Childhood Committee; the Office of Child Development; the Arts and Humanities Division of USOE; and many others too numerous to mention.

This is a sound beginning, but only the beginning. If you want this effort to continue, you must be active in your state, district and national associations — become involved, let your officers know there is a revolution in elementary physical education and motor developments for children and the profession needs to capitalize on this golden moment for the future of the profession and good programs for children.

Summary

It is urgently needed that each district, state and local association find a way to do these same kinds of things if we wish to capitalize on this opportunity in the 70s. A national association cannot do this alone, nor can one state or district. All of us in AAHPER, District Associations, and State Associations need to work together and with other groups interested in children. It is time we stopped talking to ourselves.

If you believe elementary school physical education is the base of the profession; if you believe that it is more than a watered-down sports program; if you believe it is more than a release of energy, more than remedial work for children with learning disabilities; if you believe it is more than a few gimmicks such as old tires and parachutes; if you believe it can serve a lifetime basis for efficient movement, for good physical, mental, and emotional health, for recreational skills, and that it does contribute to all learning; if you believe that a sound elementary physical education program will help children develop a favorable attitude toward physical activity and therefore cause them to seek a higher level of skill and to participate willingly in high school and college programs, as well as in their adult life; if you believe that a college-trained physical educator is necessary, and that a paraprofessional cannot do an adequate job, then we must begin today to prepare our undergraduates and our graduates properly and to interpret articulately if we wish to be a respected and integral part of the educational system in 1980. This is the challenge of the 70s. As a 16th century poet said, "Blessed is the hand that prepares a pleasure for a child, as one never knows when and where it will bloom forth."

Movement Education: What Does It Mean?

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PATRICIA TANNER is a member of the faculty of the University of South Florida, Tampa, Florida 33620 and KATE BARRETT is at the University of North Carolina, Greensboro, North Carolina 27412.

Development of an Interpretation

In 1968, the Physical Education Division of AAHPER established a terminology committee, whose charge was to "study the purpose of the content of elementary school physical education as expressed in the literature with the hope of determining a common vocabulary." The procedure adopted was to review the literature, list terms, select definitions, and seek jury reactions. Almost 200 words or phrases were identified and divided into three categories: movement, method, and activity forms.

In 1970, the uncompleted task of defining terminology was turned over to the Elementary School Physical Education Commission. The Commission sponsored a meeting of interested persons at the Seattle Convention, where problems concerning confusing terms were identified and discussed. As a result of this session, the Division acknowledged (1) the priority of the need to clarify movement education terms and (2) the fact that such terminology was a concern not just of the elementary school but for all levels of physical education.

A reconstituted terminology committee began to tackle the task of establishing definitions, but with feelings of reluctance. It was generally agreed that fixed and limited definitions could lead to a lack of flexibility in thinking, with stultifying effects on future development. At the same time, it was recognized that there is considerable duplication and confusion in the use of terms in current literature. The committee decided it could be "spinning its wheels indefinitely if it tried to capture statically those definitions which ought to be dynamically evolving," and so concentrated on a discussion of selected priority terms. Even with this delimitation, the task was imposing and the changing personnel of the committee found it difficult to prepare a definitive report.

The Elementary School Physical Education Commission, in 1974, asked the committee to submit a final report. Because a satisfactory "results and conclusions" type of report was impossible, the committee took a new look at the use of selected terms in the literature and revamped its process of examination, identification, and definition. Its report thus concentrates on the term "movement education" and discusses its evolving interpretations and their implications for other terms. It is hoped that this statement will help clarify some of the confusing terms currently in use and make an important contribution to a better understanding of the nature of physical education.

Over 100 members of AAHPER participated in various ways in the terminology study over the past several years. Appreciation is expressed to all, but especially to the following, who served as members of the committee some time during its eight years of operation, and to Margie Hanson, AAHPER consultant for elementary education, who served as liaison to the committee throughout its existence.

Naomi Allenbaugh	Kate Barrett
Delia Hussey	Lolas Halverson
Minnie Lynn	Arthur Miller
Lorena Porter	Patricia Tanner
Vern Seefeldt	Stuart Tobbins
Charles Wolbers	Rudy Tucker
Donald Brault	

Terminology can be viewed as an evolutionary process; many terms change their meanings over time. "Movement education" is an outstanding example of this phenomenon. Partially because of this evolving change of meaning, movement education is a confusing and, therefore, controversial term, making it one of the most crucial terms for the profession.

In this report, movement education becomes the central reference point for discussion. It is from this point that many other terms seem to derive their meanings, or in reference to which they assume certain different interpretations. The following discussion attempts to highlight these dynamically evolving meanings.

It was found in studying many of the elementary school physical education texts that the term movement education is often used as implying only *a unit of the total physical education program*. In other texts, however, movement education is used as being *synonymous with physical education*. Yet again, the term movement education is emerging in some instances, when used by certain authors, as encompassing *the total development of human movement potential*, a much broader view of the term than previously considered.

These evolving interpretations will be discussed more fully below, but another emergent factor concerning movement education must first be identified. It was found that, in addition to the interpretations given above, the term movement education represents a distinctive philosophical stance that embodies the following beliefs, beliefs concerned with children, physical education, and educa-

tion. Briefly stated, these can be summarized as follows.

> Physical education is in essence a child's education in and through movement. This idea represents a developing view about movement and the potential role it plays in the total education of a child. Children are seen as active experimenters and perennial learners in their own right with the need and ability for self-evaluated learning. Their individual rates of development and styles of learning are respected with belief that capacity for learning is related to confidence in self. All deserve the right to succeed and progress at their own rate.

Obvious implications indicate a learning environment that fosters independence, individuality, opportunity for decision-making, experimentation, and divergent ideas, that encourages quality performance, and that allows for error and ambiguity.

Recognition of these beliefs becomes extremely important in considering the current use of the term movement education.

Movement Education—A Unit of Total Program

When movement education is used as implying a unit of the total program, it usually refers to a unit or series of small units presented in the primary grades. It seems in these instances to carry with it the implications that *the remainder of the program does not follow those beliefs encompassed in the generally accepted meaning of the term* as identified above. In many of the texts it is only too apparent that these beliefs are *not* supported in much of the remainder of the program. Movement education as a unit also appears to imply a problem-solving methodology and a particular content centered around Laban's concepts concerning body awareness, spatial awareness, the movement qualities of time, force, space, and flow, and also relationships.

Within this type of unit structure the terms basic movement, basic movement education, and movement exploration seem to be used synonymously with movement education, allowing for slight variations of interpretation between authors, and therefore, seem to adopt the same general characteristics or definitions.

Movement Education—Synonymous with Physical Education

Apparently, because some physical educators were concerned about the dichotomy of beliefs which seem to exist in the total physical education program when movement education is used only as a unit area of content, a view of movement education as being synonymous with physical education emerged. This interpretation implies that *the beliefs embodied in the philosophy of movement education must necessarily be accepted as the tenets of the total program.*

Terms such as movement exploration, problem solving, and guided discovery are still used within the framework. Here, however, they are used essentially in reference to particular teaching methodologies and not content areas.

It is interesting to note that in this context the term movement exploration assumes an interpretation that relates *solely* to methodology—a definition or interpretation more closely allied to the literal translation of the word exploration.

These methodologies are all consistent with the beliefs inherent in the philosophy of movement education and would be evident throughout the entire physical education program. They are described more fully later in this discussion.

Movement Education—The Development of Total Human Movement Potential

An interesting view of movement education that currently seems to be evolving is one that goes far beyond the bounds of programs, schools, and other educationally oriented institutions. This evolving interpretation becomes involved with the development of increasing awareness of the total scope of movement behavior and of all movement related experiences. This is the all-inclusive view of both the art and science of human movement. This view maintains a recognition of not only the anatomical, physiological, kinesiological (including mechanical), and psychosocial factors underlying human movement but also the aesthetic aspects. It is the free association (not bound by cultural ties or experiences) of movement-related concepts such as space-time-force-flow and shape-line-form-design in all functional, communicative, and expressive human endeavors.

This interpretation of movement education would indicate an ultimate valuing of movement in all its forms—both animate and inanimate—its forms of theory and practice, process and product, reality and abstraction. This interpretation would view movement as an essential integrating process in the development of human potential, operating not only throughout a total physical education program but throughout one's total life span.

Discussion

The above definitions and descriptions are believed by this committee to be the intended interpretations within the current use of the term movement education and of the closely related content area terms such as basic movement, basic movement education, and exploration. It is recognized, however, that varying interpretations within the literature can be misleading.

It is the hope of this committee that the view of movement education in its most global sense will eventually be generally adopted. This would then also infer the synonymity of movement education and physical education within the school setting, or formal education framework. This would eliminate the use of the term movement education as applying only to fundamental movement experiences for the primary grades, particularly those identified as units of content.

Addendum

Descriptive definitions for clarification of some of the terms used in the report are presented here. These methodologies are all consistent with the beliefs inherent in the philosophy of movement education and would be evident throughout the entire physical education program. The intent is to wed the variety of interpretations of these terms in contemporary physical education literature with current educational theory.

Movement exploration: Movement exploration implies a process where the most open or freest environment is allowed for learning to take place. This is the situation where the learner is not given a specific series of directions for operation nor tied down to any particular outcome. The intent in this process is to give students the greatest opportunity for self-discovery in and on their own terms.

Problem Solving: With a literal translation of problem-solving, it is obvious that the term implies an environment within which the child must come to grips with the process of solving problems, where he becomes better able to differentiate between solutions that are applicable or appropriate to the problem and those that are not. This interpretation of the method called problem-solving means that children are no longer dealing with movement solely on their own terms but are being influenced to varying degrees by the structure of the task. All possible solutions are not necessarily known to the teacher in this strategy.

Guided discovery: Guided discovery is best described as being a particular strategy within the wide range of problem-solving. Guided discovery is the strategy where the outcome or solution to the problem is known to the teacher but is not necessarily initially known by the learner. The role that the teacher plays is to guide the child by question or clue through exploration of a variety of possible solutions to a desired outcome, or certain desired outcomes. □

WHAT MOVEMENT MEANS TO THE YOUNG CHILD

KATURAH E. WHITEHURST

This in-depth conference, co-sponsored by two professional organizations for whom the development of children is a central objective, is a step in the right direction. Too long have we lived out our professional lives within the confines of our own disciplines, not knowing about the insights of the other fields of study and, worse still, not caring. Under the guise of becoming "experts" in separate disciplines, we have gone our separate ways emphasizing only that aspect of the universe that suited our narrow interests or yielded to our limited methodology. This state of affairs is particularly deplorable when it exists among those of us who claim an interest in human development. It is we who proclaim the complexity of human behavior. It is we who emphasize the "wholeness" of the human beings whom we teach. It is we who insist through preachments that the "whole child" be taught. If, indeed, the child-as-a-whole is such an intricate and complex organism, it behooves the disciplines that profess to understand, develop, and educate children to get together for such serious exchanges as we have experienced at this conference.

The achievement of effective interdisciplinary effort is more easily written and spoken about than actually realized. Many barriers to this achievement still exist, not the least among which is the barrier of status. Within the hierarchy of disciplines, some enjoy greater respect and privilege than others. Thus is created an atmosphere of defensiveness which undermines all positive efforts to reach out and to share intuitions, insights, and learnings. The college teacher doubts that college teaching can be improved by the ideas of high school teachers who, themselves, are distrustful of the methods of the elementary school teacher. Certainly, the kindergarten and nursery school teachers are glorified baby-sitters, hardly deserving professorial ranks. Of course, physical education exists to develop winning teams and to occupy the energies of those who are not interested in academic pursuits. Society reinforces these benighted attitudes through its differential rewards of salaries and other forms of recognition. It is remarkable, therefore, that within such a climate the American Association for Health, Physical Education, and Recreation and the National Association for the Education of Young Children have the maturity, flexibility, and foresight to form an interdisciplinary team in the search for better ways of teaching young children in all the dimensions of their development.

At different periods of educational history, interest in one or another of the dimensions of development has been emphasized—physical fitness, cognitive development, social development, emotional development. Now the spotlight is on motor development or movement education. The ebb and flow of interest in these areas as well as the predominance of one over the others at a particular time may be a real testament to our inability to deal with the totality of development at any given moment. Perhaps what is needed is a new conceptualization of development—an integrative philosophy of learning—even a new, common language by which we can communicate with each other without the hang-ups imposed upon us by our compartmentalized training.

Psychologists have long been aware of the significance of the motor dimension in the development of the young child. Several principles of development give recognition to its importance. For example, the principle of the interrelatedness of all aspects of development has led us to expect that improvement in any dimension will have positive repercussions in the other dimensions: improvement in the motor area may be followed by improvement in the social area and vice versa. Likewise, the principle of directionality in neuromuscular control has led to the educational practice of supplying large pencils for little hands. Moreover, some of the earliest experiments in the field of differential psychology were those of J. McKeen Cattel on reaction time. In psychodiagnosis, movement has been a key concept in understanding the personality, both normal and abnormal. Play is not only considered the language of normal childhood, but it is also the key that unlocks the mysteries of atypical behavior for the child therapist. For the developmental psychologist and the child therapist, then, movement makes sense; it is meaningful.

My task, however, is to interpret the meaning of movement from the point of view of the child himself. At first glance, the topic, "The Young Child: What Movement Means to Him," seems to demand a great deal of inference on my part and to subject me to the risk of reading into the child's experience my own empathic deductions or even my need to have movement mean something to the child. On second glance, things are not as bad as they first ap-

Katurah Whitehurst is professor, Psychology Department, Virginia State College, Petersburg, Virginia 23806.

pear, for I have had the opportunity to observe young children and to talk with them in natural settings over long periods of time and the children have taught me a great deal about themselves. I shall, therefore, proceed to list what movement means to the young child without apology for my empathy or my methodology.

1. To the young child, movement means life. Not only does he experience life in his own movements but also he attributes life to all moving things. Listen to Louisa, 26 months old, finding a new truck in her sandpile. "O-o-h! a truck, you come to my house? You play with me? Come on, truck; see mommie." Then, looking back, finding that the truck was not following, she yelled back, "Come on, truck!" Finally, she returned to the sandpile, took the string tied to the truck, and began leading it as one would a little child. "Come on, truck." What further evidence does one need that movement means life to a young child?

Piaget would consider this incident of Louisa and the truck as an excellent example of the animistic thinking that is typical of early childhood. In his theory, Piaget finds that the young child attributes life to activity in general, then to movements, to spontaneous movements and finally to plants and animals. The child recognizes at this primitive level that movement is the essence of life outside himself but he also comes to know himself through movement.

2. Movement is, for the young child, an important factor in self-discovery. This self-discovery ranges from his fascination with his toes as an infant to his painful awareness of the limitations of his acrobatic skills when he has climbed to the highest pinnacle of the jungle gym and now finds it impossible to back down. Through manipulation he discovers one nose, two eyes, two ears, two nostrils, and the texture of his hair. Through locomotion he discovers independence and achieves a repertoire of body skills that generate self-pride. Through kinesthesis, he gets to know how it feels to move and the feedback from each movement provides cues that are used to develop more and more intricate patterns of self-propulsion. Soon the child discovers what a marvelously constructed organism he is. "Look at me," shouted Kip, as he walked a balance board from beginning to end without falling. "See. I can do anything —anything I want to." As the young child moves, he discovers himself as a separate entity with body features and capacities of his own. The emerging concept of self is ego-enhancing as he calls attention to his stunts and tricks.

3. Movement means discovery of the environment. As an infant, the child moves his head to focus his eyes in relationship to a sound and finds toys in his environment, as well as people and other objects with names. As a toddler, he finds that his world is extended by his own mobility. In the enlarged environment, new objects are discovered, examined, and named. His vocabulary increases for he must have new names for his latest discoveries. As his mobility increases, the likelihood that he will cross the boundaries of other people's rights and possessions also increases, and for the first time the child must adapt himself to property rights—a fundamental factor in his socialization for life in our culture.

The fact that he can move from place to place lays the foundation for exploration of an increasingly complicated environment—an environment that is social as well as physical.

Movement assists the young child in achieving and maintaining his orientation in space. It is an important factor in his development of concepts of time, space, and direction.

4. What does movement mean to a young child? It means freedom, freedom from the restrictions of narrow physical confinements and freedom to expand oneself through creative body expressions. To be "on the move" is to be free. We look for and find projections of freedom and spontaneity in the child's graphic expressions, in his art, his song and dance, his capacity for abandonment.

5. Movement means safety. In a basic sense it has survival value. It enables one to avoid many forms of bodily harm and as such it is a ready defense against several kinds of danger. Early in his development, the child learns that a quick movement, timely, and in the right direction is an important protective device. It enables him to elude the angry intentions of playmates whom he has provoked. Or, it may spare him bodily assault by a frustrated parent. He finds it easy to identify with the storybook character who shouts "Run, run as fast as you can. You can't catch me: I'm the gingerbread man." The gingerbread man is a real hero because, through his agility and swiftness, he is able to cope with threats to his personal safety and well-being.

The actual environment for which the growing child must learn adaptive responses is much more complicated than the fantasy world of the gingerbread man. The physical hazards of everyday living demand an increasing emphasis upon safety education which incorporates the natural defense tendencies into a controlled and purposeful execution of body movements that are designed to reduce the serious and disabling consequences of bumps, falls, and other accidental impacts.

6. To the young child, movement is a method of establishing contact and communication. He approaches or withdraws, smiles or frowns, points his finger, waves his hand, purses his lips, tosses his head, widens his eyes, shrugs his shoulders, gesticulates in dozens of ways. This is a language through which he expresses his ideas, feelings, and wishes. Also it is the language through which he clearly reads the meanings and intentions of others. The accuracy of the young child's perceptions of nonverbal behavior is astounding. It is matched only by his frankness in letting us know what he has perceived.

7. Not the least among the meanings of movement for the young child are sheer enjoyment and sensuous pleasure. He runs and screams with excitement as an expression of joy in just being alive. Little Lisa's mother rushed to the door in response to her four-year old daughter's excited screams only to find the little girl running at her fastest speed and screaming at her highest pitch for no obvious reason. When Lisa's excitement was somewhat abated, her mother said, "Lisa, why were you running so fast, and screaming so loudly?" "'Cause it feels so good, mommie"—was the little girl's quick reply. Lisa's screams were outbursts expressing the pleasure she experienced from her own movement through space.

8. If controlled movement means mastery, rhythm, and grace, then uncontrolled movement means failure, awkwardness and disgrace. Self-confidence, assurance, poise, and initiative can be undermined by the imposition of movement by external forces or by the lack or loss of self-controlled movement. Children who stumble and fall frequently have less initiative than those who are sure-footed. The awkward and clumsy are always the last to be chosen as members of the team. Their self-image is one of failure and inferiority, and their embarrassment has an eroding effect upon their willingness to try again. Movement means acceptance.

Movement, then, means many things to children. To summarize, it means (1) life, (2) self-discovery, (3) environmental discovery, both physical and social, (4) freedom, both spatial and self-expressive, (5) safety, (6) communication, (7) enjoyment and sensuous pleasure, and (8) acceptance.

If movement means so much to the developing child, no further justification should be required for its inclusion among the major techniques in education. For some children, movement education may be one of many avenues to the goal of self-actualization. For others, it may be a "pump primer" to get the flow of interest and imagination flowing. And for still others, it may be the only way. □

middle schools:

issues and future directions in physical education

VERN SEEFELDT

The reorganization of public education is a continuous process by which educators attempt to prepare their clientele for the challenges they will meet in a changing society. A major concern during the last decade has been the education of students who are in transition between the individualized programs of elementary schools and the departmentalized approach of the high schools. There is general agreement among school administrators that the curriculum of the conventional junior high school has failed to prepare students for their high school experiences. In response to the dissatisfaction with current junior high school programs, an alternate approach to educating children within the age range from 10 to 14 years, the *middle school,* has swept across the nation in a brief period of time.

A 1971 report [1] estimated that the number of middle schools in the United States grew from approximately 500 in 1965 to over 2,000 by 1971. Such rapid changes are not without precedent when they involve educational innovations, but expediency is apt to bring problems which are as difficult to resolve as those which precipitated the change. At this point it seems appropos for physical education teachers to assess their role in the education of *transescent* youth.[2] Do the shortcomings of a junior high school education also pervade its physical education curriculum? Will the emerging middle school physical education programs provide for a better understanding of movement and result in a wiser use of activity in the daily lives of its recipients? The survey of current middle school practices in physical education, intramurals, and athletics, reported by Stafford[3], serves notice that many of the past problems will be incorporated into middle school programs unless there is a concerted effort to identify them and guard against their proliferation. Several of these persistent problems are discussed briefly in this article.

Individualized Attention to Growth and Performance

There is common agreement among specialists in child development that the variation in such parameters as physical growth, biological maturation, and motor performance for individuals of the same chronological age is at its maximum during the circumpuberal period.[4] The physical changes which occur in boys and girls between the ages of 10 and 14 can be intense or moderate, emerge abruptly or require considerable time in their development, but the transition from childhood to adulthood requires greater personal adjustments than have been experienced in the previous years. The philosophy embraced by middle school teachers emphasizes the educator's role in guiding students through these tumultuous years on an individual basis.

Knowledge of developmental changes in physical, motor, and emotional characteristics is a prerequisite to teaching physical education in the middle school. Implicit in programs of teacher education are experiences which provide an understanding of those specific changes and how they relate to skill development. The isolated discussion of physical growth, motor control, and social development apparently is not conducive to transfer, if the incorporation of these materials into physical education programs can be taken as a measure of their portability.

Examples of the variability among middle school students serve to illustrate the problems which teachers face in their day-to-day attempts to provide suitable learning environments. The standing heights of 12-year-old girls may vary from 52 to 66 inches. Body weight at age 12 ranges from 58 pounds for the smallest girls to 140 pounds for the largest. Skeletal age as determined by hand wrist X-ray varies from 165 months for the earliest maturing girl to 124 months in the latest maturing girl.[5] Variations of similar proportions are recorded for measures of motor performance. Although boys are, on the average, two years behind girls in acquiring their mature physical size and functional capacity, the differences noted in the developmental characteristics and motor performance of girls are true for boys as well. When the diversity in body size is compounded by class size, sex, race, cultural background, and various other parameters, it becomes apparent why teachers often resort to group instruction instead of individual guidance.

Despite the enormity of the task, the variations in physical size and motor ability among children of a similar grade or chronological age call for curricular content and learning environments which reflect their diversified needs. However, the interrelationship of physical, motor, and social development has not received major attention in previous physical

Reprinted from *Journal of Health, Physical Education, Recreation,* February 1974.

[1] Alexander, Wm., "What's the Score on Middle Schools?" *Today's Education* 60:67, 1971.

[2] *Transescent* is commonly used by educators of middle school children to describe the stage of development which begins just prior to the onset of puberty and extends into the period of puberty.

[3] Stafford, Elba, *Journal of Physical Education and Recreation* 45:25, February 1974.

[4] See, for example: Clarke, H., *Physical and Motor Tests in the Medford Boys' Growth Study* (Englewood Cliffs, N.J.: Prentice-Hall, 1971); Jones, M., et al., *The Course of Human Development* (Waltham, Mass.: Xerox College Publishing, 1971); and McCammon, R., *Human Growth and Development* (Springfield, Ill.: Chas. Thomas, 1970).

[5] Pyle, S., Waterhouse, A., and Greulich, W., *A Radiographic Standard of Reference for the Growing Hand and Wrist* (Chicago, Ill.: Yearbook Medical Publishers, 1971).

education curricular efforts. Based on recent information, there is currently little effort to modify programs or provide flexibility within units of study to accommodate individual interests and abilities of students. Yet it is evident that if physical education teachers are to capacitate students through movement, then children must become the reference of their knowledge, and activities must be selected by prescription rather than by tradition.

Program Content

A frequent criticism of existing junior high school programs is that they emulate or duplicate the course offerings and organizational structure of the high schools. However, the trend toward earlier maturity in today's youth provides some justification for teaching activities at the junior high school level which were customarily reserved for high school programs. In addition, many physical education teachers believe that the introduction of lifetime sports at the high school level deprives students of learning these skills during their most receptive years, namely at the middle school level. Despite the two points of view, it appears that the variation in motor proficiency of middle school students is likely to increase in the ensuing years. Such elements as earlier attainment of biological maturity and the provision of better elementary school physical education programs will enhance the achievement of some students, while later biologic maturation in conjunction with deprivation of opportunities to become involved in movement will reduce the potential proficiency of others.

The range in motor abilities at the middle school level indicates that physical education programs must provide instructional opportunities for those whose performance level falls below their potential. Students who have not mastered the fundamental motor skills or those whose developmental level is more compatible with the transitional skills should be given ample time to learn these skills before they are introduced to the sports of our culture. The opportunity to acquire skills that were omitted in earlier years and to select activities which are suitable to body type, personality, and developmental level is an inherent part of the middle school physical education curriculum.

Intramural Activities

Intramural sports programs for boys and girls appear to be a popular activity in the nation's junior high schools. There is every indication that the emerging middle schools will offer programs which are equally as diversified and popular as those of their predecessors. However, a paradox is evident when one compares the physical education course offerings of some schools with their intramural programs. Presumably the activities of the physical education program should provide the basic skills for student participation in intramural events. Yet some schools provided a more extensive selection of intramural sports than was available in their physical education program. Others concentrated primarily upon team sports in their instructional program but offered a variety of individual and dual sports during the intramural program. Still others emphasized team sports in the physical education and intramural programs despite the acknowledgement of school officials that students favored increased opportunities for individual and dual sports in both programs.

The coordination of intramural activities with the content of physical education programs ensures that students will participate in after-school activities which are familiar to them. However, the lack of harmony between many physical education and intramural programs of schools in the survey is not surprising when one considers that over one-fourth had no written philosophy of education, over one-third had no written course of study, and over one-half did not have behavioral objectives in written form.

The inability to provide a rationale for the inclusion of physical education in the curriculum, in conjunction with an arbitrary system of selecting program content, presents a serious problem in the operational procedure of middle schools. If the physical education program is to function within the middle school philosophy, it must provide a sequential series of experiences to students of varying abilities. The orderly nature of motor skill acquisition is a matter of record; the identification of appropriate sequences for each student is an essential part of the teacher's responsibility.

Interscholastic Athletics

Interscholastic athletic competition is one of the most controversial issues surrounding middle school programs. Despite the prolonged involvement in the issue by both its antagonists and protagonists, there is currently little scientific evidence which supports or refutes the beneficial effects of these activities on youthful performers. Comparative data on the rate of increases in competition at this age level are not available, but Stafford's survey suggests that athletic competition at the middle school level equals or exceeds the popularity it held at a similar grade level in the junior high school.

The popularity of competitive athletic programs has ramifications for middle schools, aside from the potential physical or psychological harm they may bring to the participants. One of these issues focuses on who will derive the benefits of the instruction, equipment, and facilities provided by tax-supported schools. Educational policy has generally given priority to programs which accommodate the student body, prior to

making provisions for special groups. Translated into activity programs, this policy provides for the participation of all students in the physical education and intramural programs, before making any commitment to an interscholastic athletic program. There is evidence that intramural and interscholastic athletic programs sponsored by the same school are not maintained on an equal basis. The AAHPER report on Desirable Athletic Competition for Children of Elementary School Age[6] suggests that there is an inverse relationship between the two programs when they coexist. The preliminary evidence of this survey indicates that the quality of intramural programs increases in the absence of after-school competition with interscholastic athletics for equipment, facilities, and personnel.

Interscholastic athletics at the middle school, as viewed by many educators, are in direct conflict with a philosophy which advocates the inclusion of every child in the activities of his choice, regardless of ability level. The conduct of interscholastic athletic competition is, by nature, a process of exclusion, and it is this element of elimination which is of concern to some educators. Obviously, there are many times of forced nonparticipation in the lives of children, but the exclusion from athletic competition seems to have special significance because of the conditions under which it takes place and the permanence attached to the incident.

Aspirants to athletic teams are usually eliminated because they fail to meet certain standards of motor performance. Generally, this failure is attributed to a lack of strength, power, or endurance, but the ultimate cause may be the size and maturity level of the performer. Since chronological age is usually the only criterion for eligibility for age-group athletic teams, it is clear that the earlier maturing children, who are generally taller and heavier, have an advantage over the later maturing children.

The process of excluding performers from teams at the middle school is likely to have far-reaching consequences. Elimination from a team often reduces or removes any further opportunities the child may have to practice the skills in their usual setting, while the team members benefit from systematic practices under guided instruction. These circumstances may increase the skill differential between the team and the nonteam members, thus making it more difficult for those who were excluded to reach the achievement level of their peers in subsequent years. A repetition of these events at an impressionable age may discourage young performers from making further attempts to reach their objective.

Attempts to identify potential athletes during their childhood, with the view toward grooming them to stardom, is a dubious practice. Aside from the ethical problems raised by these actions, there is also the likelihood that such ventures will result in a low proportion of successes. The characteristics which determine athletic prowess are numerous, and most of them are of environmental, rather than genetic, origin. Clarke[7] reported that the athletic status of young boys changed markedly over an eight-year period, between the ages of 9 and 15 years. Of those who were rated by their coaches as *outstanding* at some time during this interval of time, only 25% received this rating at both the elementary and junior high school level; 45% were rated as *outstanding* in elementary school but not in junior high school, and 30% were rated as *outstanding* in junior high school but not in elementary school. It is evident that the extreme conditions of overemphasis on athletic competition or the deprivation caused by inability to participate in sports could alter the lives of children in these formative years. Middle school activity programs should guard their participants from either of these situations.

Teacher Preparedness

The primary responsibility for translating educational philosophy into practice rests with teachers. This situation presents a dilemma for physical education programs in the middle schools, because most of their teachers were recruited from the elementary or senior high schools. Less than half of the teachers who responded to the survey questionnaire had their cadet teaching experience exclusively at the middle school or junior high school level. The large proportion of teachers whose undergraduate preparation was designed for high school instruction, but who eventually acquired jobs in the middle school, explains the secondary school orientation of many middle school programs.

Both men and women middle school physical education teachers often coach interscholastic athletics at the high school level as well. Although these responsibilities seem compatible on the surface, the situation does raise questions concerning the custody of the intramural program at the middle school. Alternate solutions to having the physical education instructors conduct the intramural programs involve assigning the responsibility to other teachers or eliminating the programs. The latter approach is unacceptable, while the former is not as desirable as having an individual in charge of both programs who is acquainted with the skill level of the participants. If middle school activity programs are to be placed in their proper educational perspective and achieve a status independent of the high school athletic program, it seems imperative that they employ physical education teachers who have a total commitment to middle school programs.

Institutions which prepare teachers of physical education have historically directed their attention toward high school students. The recent demand for activity programs in nursery and elementary schools has resulted in numerous attempts to provide courses or areas of concentration in elementary school physical education. It is now evident that the institutions which prepare teachers must also attend to the special problems of the middle schools.

In summary, this report has underscored some of the concerns which are detected as a result of a recent survey on practices in middle school physical activity programs. Major problems appear to be an inability to deal with the physical, motor, and social problems of transescent youth in a prescriptive manner, and the propensity to emulate the high schools in the content of their physical education programs and their conduct of interscholastic athletics. □

[6] *Desirable Athletic Competition for Children of Elementary School Age* (Washington, D.C.: AAHPER, 1968).

[7] Clarke, H., "Characteristics of the Young Athlete: A Longitudinal Look," *Kinesiology Review* (Washington, D.C.: AAHPER, 1968).

The elementary physical education specialist is a

motivational wizard

who works wonders in the lives of children through the medium of movement.

JOHN D. WEBER

Someone once said that if the world could be seen through the eyes of a child, what a joyful, beautiful, happy place it would be. Life would be experienced in all its beauty as a series of exciting, spontaneous, purposeful adventures meant to be explored and enjoyed.

As I look back at my four years of experience as an elementary specialist, two insights come to mind. In the first place, I must admit that the children have taught me about group dynamics, interpersonal relationships, and human movement, even though I supposedly knew all these things before I began teaching. Secondly, the more I work with children, the more I realize what little I know about them. They no longer appear as beings of the present, but instead as individuals who have been shaped by the past, are being nurtured by the present, and are concerned for the future. Because of these insights, I must humbly admit that any success I have had in working with children started the day I stopped "teaching" them as members of a group and started accepting them as individuals with needs—each with his own needs to explore, to succeed, and to be accepted and loved. I have come to appreciate them as they operate on a feeling level, whereas most adults operate on an intellectual level. I have come to realize that there is a key available to reach each child. I also believe that each of us has that key within us—the capacity to give and receive love, to exhibit genuine feeling.

When I first started teaching, I found it very difficult to relate to children in a personal, loving way, with any display of feeling. I could rationalize and say that I was just apprehensive about starting my new career, but the real reason was that I was just not prepared to relate to younger children. It was ingrained in me that I had to maintain proper "social distance" with junior and senior high school kids in order to maintain a climate conducive to learning. I approached my initial elementary school experience with that same frame of reference.

However, I will never forget the day little five-year-old Susan took me gently by the hand and carefully guided me across a jungle of steel apparatus teeming with wriggling, running, bouncing, screaming, joyful, three-foot bundles of energy (as if I couldn't negotiate the distance safely myself!). At the end of the journey she beckoned me to bend over, stood on her tip-toes and whispered in my ear, "Mr. Weber, I really love you, but I love my Daddy, too!" It was then that the revelation came to me that Susan was reaching out to me the only way she knew how. I recall with embarrassment the uneasiness I felt as her little hand was in mine. This was not the role for which I was trained. I felt as though Susan were embracing me as father and friend! I still remember how I yearned for the security of the gymnasium, with its seclusion in numbers and noise—and my whistle! Oh! Just to blow my whistle and neutralize all involvement and feeling—and regain my rightful status as "teacher." But Susan did not let go of my hand that easily, and within a few minutes she had my heart.

As I look back at that encounter several years ago, I wonder how many other children have attempted to "touch me," to reach out to me, only to be turned off with the blast of my whistle. Or perhaps I have kept them buried in a line for five minutes while they waited patiently for a thirty-second experience with a ball. Or, even worse, if they became impatient and "didn't pay attention," they probably did not get to touch the ball at all. I thank God for people like Susan, and the thousands of others with whom I have had contact, for they are the ones who are helping me to understand what makes a competent elementary physical education teacher. And it is this insight that I would like to pass on to anyone willing to work with children and willing to risk having his life changed by them.

There is no reason, however, for me to elaborate on all of the competencies that I feel are essential to this responsibility, since our profession has already defined them quite adequately. I am encouraged with the work being done at some state levels and at the national level to enhance the status of elementary physical education, and, more specifically, the elementary physical education specialist. There is one ingredient of the physical educator's role which I feel has to be given even more emphasis—and it may be the very cornerstone to the elementary physical education

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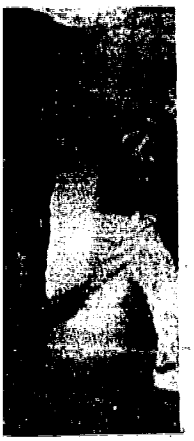
John D. Weber is presently with the Olympia Public Schools, Olympia, Washington. He is an elementary physical education consultant, a program developer for developmental learning, and a camp director for the school district's outdoor education program.

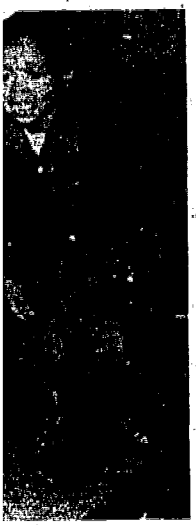
specialist's success. He must be able to motivate a child to learn, to be the catalyst for the child's learning experience. If the teacher does not possess this ability, he will be unable to effect learning regardless of how many other competencies he has mastered. I would describe the elementary physical education specialist as a motivational wizard who works wonders in the lives of children through the medium of movement!

Jo Stanchfield has acknowledged four principles of motivation in general education: *contagion, expectancy, effectance,* and *involvement.* I believe these principles have direct implication for elementary physical education, and I have endeavored to adapt and apply them to this field. Implied in my discussion are the compentencies which I have come to believe an elementary physical education specialist must possess.

Contagion. The first principle, contagion, relates to the elementary specialist's attitudes and how he projects them to the children with whom he is working. It is that aspect of the elementary specialist's personality which "rubs off" onto the children and teachers with whom he comes in contact. It is the excitement he generates when he leads children to experience the cause-effect relationship between movement and the discovery of self and the world in which they live. It is loving children as they are and making them feel good about themselves. Basically, it is the ability to relate or communicate with children at their level of need.

The elementary specialist needs to understand that communication is a two-way process and that how effective he is in facilitating this process is directly proportional to his understanding of the child's feelings toward him and the child's means of communicating with the teacher. Susie may see him as more than just a teacher, such as a father figure, authority figure, friend, or possibly the first significant adult outside her family willing to give love, acceptance, kindness, and leadership. If the teacher fails to recognize her needs and fails to relate to them, both the teacher and Susie will experience frustration. She may then seek attention by striving hard to excel in phys-





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ical activity, by turning on the charm, by making herself a nuisance, or by just becoming lazy or lackadaisical in her participation. If she cannot gain attention, she may engage the teacher in a power struggle by demonstrating rebelliousness and stubbornness. If she is thwarted further, she may even seek revenge, or retaliate for her own feeling of being hurt. If she still has not gained any feeling of any status or worth in the group, she may develop a complex of complete hopelessness and a sense of worthlessness as an individual, resulting in the inability to participate in physical education activity. And the final product—a physical education drop-out at the age of six!

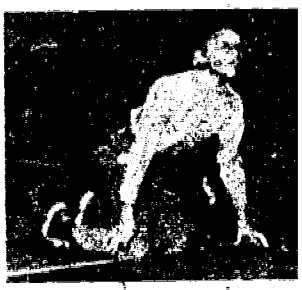
The elementary specialist is not immune to assuming undesirable means of handling his frustrations, either. His position, authority, and prestige, which are ingrained by tradition, are at stake in this two-way game. In trying to maintain his status with Susie, he may become too lenient, may try to appease her, may become too authoritarian while trying to control the situation, or may retaliate against her to compensate for his own disappointment.

The quality of the relationship between the elementary specialist and the child cannot be over-emphasized. It is one of the vital keys to the success of the entire elementary physical education program. The success of this relationship will influence the academic and social attitudes the child will develop toward future cognitive, social-emotional, and physical experiences.

As I see it, the most effective way to prevent relationship problems and deal with other motivational difficulties is for the teacher to become a master in practicing the art of loving, for nothing is more contagious. It is also the source of enthusiasm, an outward manifestation of love.

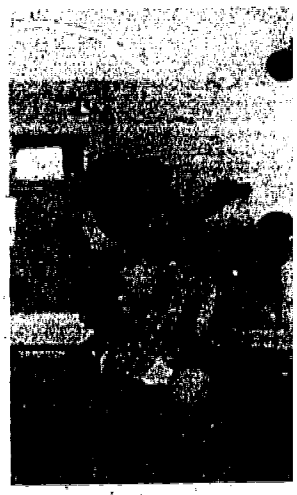
I have heard many teachers comment on how they "love" children, but their outward display of their sense of love in the learning situation appears to be more a feeling of toleration than of love. I, too, am guilty of tolerating the children at times, but admittedly, have always found this response to be ineffective. By definition, "love is a feeling of personal attachment induced by sympathetic understanding"; toleration has no place within this spectrum.

Granted, it is sometimes difficult to love the "nuisance" whose behavior is always contrary to what the class is doing, or the one who performs a motor skill according to the way he wants to (if he can do it at all), or the one who says, "I can't" and will not even try, or the one who continues to bounce a ball or twirl a hula hoop after having been asked repeatedly for his attention. What these children are really saying is, "Love me for *what* I am, and love me *because* I am!"



To meet them at this level, the elementary specialist must first be able to love himself. Second, there must be harmony between his philosophy of life and his motives for teaching. And third, he must be flexible in his planning and organization, enthusiastic in his approach, and warm to the children's needs.

Love is not just the emotional involvement with a child; it is the conscious practice of an art—an art too often neglected. And as we practice this art we begin to exude enthusiasm and kindness. When we become enthusiastic, we are emancipated from convention and personal inhibitions. We then become excited about our involvement with kids. We become free to experience the same excitement that a child feels when he discovers an old oak tree just waiting for someone to explore its upper branches for the first time. We become excited over the possibilities the tree has for a movement education laboratory with its low and high branches, designed by nature to accommodate any child with any degree of motor ability—a place where he can experience the elements of time and space and the sensations of force and flow. Then we become even more excited and enthusiastic about the inherent potential children have for exploration and achievement, and we lie awake at night, thinking of ways to get the child to discover the tree! When we reach this stage, we become contagious! And when we become contagious, our enthusiasm begins to infect the lives of the Susies and Tommies, and their attitudes toward learning blossom. So, if you want to experience the reality of contagion for yourself, let any Susie take you by the hand, have the courage and patience to hang on, and let love work its miracles.



Expectancy. The second principle of motivation, expectancy, is closely related to contagion. When you become excited about the potential in children, your expectancy of them also increases and shows itself. In this sense, expectancy refers to what the teacher feels the child can learn and how this expectancy shapes the child's attitude toward the learning situation. There are two factors of this principle which I think are essential to enhancing motivation. First, a child's performance is directly proportional to your expectations of him. The more you expect him to explore the oak tree, the more he will. Second, the child must expect that a change in his behavior will take place each time he enters the activity area. Each time he climbs in the oak tree he knows that he will have to alter his climbing technique to conquer the next higher branch if he is ever going to reach the top.

The elementary specialist must create an atmosphere filled with the anticipation that something exciting and rewarding is going to happen! The child, by nature, has a high level of expectancy, and when he comes to the activity area, he expects to become involved in an activity which will meet his needs.

The specialist's attitude toward the child's involvement tells him that "I know you can do it!" "I have faith in you!" "I will stand behind you if you fail and will help you to discover a different solution to the problem!" Because of tradition and the preconceived ideas of what the child is capable of learning, we sometimes set goals according to what we expect from the average youngster and provide little to stimulate him to achieve above that level. Our level of expectancy of a child is also conditioned from what we have known his performance to be in the past. We may expect too much or too little of him based on prior knowledge of the child. Either expectation may discourage him in his attempts to master a new skill. One of the easiest ways to stifle a child is just to tell him by your expectations of him that he is "dumb," or "uncoordinated," or a "trouble-maker" and that is exactly what you will help to develop, a child who sees himself as a "dumb, uncoordinated, trouble-maker." To create an atmosphere of expectancy, you must provide the

child with an open-ended opportunity to develop according to his capabilities and desires.

With the expectancy of achievement and success, the child will anticipate a change in his behavior each time he enters the activity area for instruction. Although the change will be an improvement in motor skill, it may include also greater insight into mathematical and science concepts, music, and social studies. He may come to realize that since he has improved in specific gross motor, fine motor, and perceptual-motor skills, his penmanship and reading have improved. As a result of his increased classroom skills, his self-esteem improves, and he gets along better with his teacher, family, and friends. When the child begins to realize the variety of benefits from physical education activity, he will, in turn, expect to become involved in a learning experience each time he participates. Those precious minutes in the activity area, then, become a continuation of his learning experience.

I have witnessed it happening many times that the children have come to "waste time" playing rather than having come to learn. The children are not always at fault in these situations. Too many classroom teachers have the attitude that at 10:40 a.m., learning stops in the reading group, and, at 10:45, "PE" starts in the gym, as if to say that when learning stops, "PE" begins. Associated with this attitude is the fallacy that the only time kids are ready to do their best learning is in the morning between 9:00 and 11:00 when they are alert! "PE" is reserved for the afternoon when they are "tired" and need time to let off steam and flex their muscles.

It goes without saying that we achieve what is expected of us. And this is never more true than in elementary school physical education, or any other phase of the child's educational experience.

Effectance. The third principle which is essential to motivation is effectance. It is the child's ability to cope effectively with a new experience. It is also his ability to attempt a new movement skill, practice it,

evaluate, and repractice it until he has it mastered. This principle places the responsibility on the elementary specialist to help the child cope with each new physical skill by adapting its component movements to each child's level of ability and style of learning.

There are two areas of effectance to be considered. The first one is vertical effectance. That is to say, the child has to succeed at the basic, lower level of knowledge and physical skill before he can achieve and enjoy success at the next higher level. In order to do this, the elementary specialist must state in concise, behavioral terms those motor skills that are to be learned at each level of the child's development. It is crucial that both he and the student have a specific criterion they can use to assess the degree to which the skill has been learned.

After the motor skills are defined behaviorally, they must be presented in a sequential, spiral progression so that the child can experience success at each appropriate level. Each level of skill presents a unique learning situation where the child must become involved by using all of his sensory modes—his sight, touch, hearing, taste, smell, and kinesthesia. Further involvement in the skill is brought about by forcing the child to become cognitively and emotionally involved by presenting the skill as a problem to be solved, rather than by following an example set by the teacher. As the child works toward the solution, he may alter the basic movement patterns he has learned already, or he may create new ones through his intellectual and physical exploration of the many different facets the problem presents. It is most important to remember, however, that he cannot be creative in his movement in the most effective way until he has first mastered the basic fundamental skills which allow him to explore.

With the mastery of new skills and the experiences of success and enjoyment in the physical education activity, the child has the basic knowledge and physical skills to explore and succeed in other areas. This is called horizontal effectance. As a result of skills learned in physical education, a boy will be able to join his peers in a game of touch football or soccer during recess and find

social acceptance in a group. He may seek other outlets for his physical activity and become interested in intramural sports where he can excel further and fulfill his needs for competition and group identification. Older, intermediate grade boys and girls who have experienced the joy of success may desire to become involved in any of the lifetime sports, such as tennis, swimming, bowling, or skiing.

Involvement. The last principle of motivation, involvement, is the medium through which contagion, expectancy, and effectance work. More simply stated, the elementary specialist may be the most contagious person ever, but if he does not provide opportunities for kids to become totally involved in physical education activity at their level of ability, the program's objectives will never be realized.

Regardless of the activity offered, each one must be designed to involve each child in a cognitive, social-emotional, and physical-neuromuscular activity within the limitations of congested space, limited time, and limited amounts of equipment.

Large class loads, inflexible schedules, limited time, limited space, and limited equipment are some of the problems which will continue to plague the elementary specialist in his efforts to involve the children in physical education activity. Some of these obvious problems can be solved by the specialist involving himself with other persons who have an interest in the program, such as administrators, teachers, and parents. In-service training workshops conducted by the specialist for teachers and administrators, and physical education demonstrations for PTA groups can help inform others about the value of the program and the needs to improve the program.

The less obvious threats to program success can usually be reduced when the specialist practices his "art of loving" and manifests it in his "genuine involvement" with staff and community, as well as with the children. Thus, I have begun and concluded my thoughts with the importance of a loving attitude and concern for the growth and development and well-being of others as a basis for success in this field.

Competencies of the Elementary Physical Education Specialist

1. Demonstrate the ability to motivate children to learn
2. Demonstrate the art of loving all types of children, communicating with them as unique individuals at their level of need
3. Construct program objectives at each level of development and state them in behavioral terms
4. Apply the facts and theories relating to human development and learning based upon the following: process of motor development, process of perceptual development, human anatomy, human physiology, developmental psychology, educational psychology, and child behavior—with some emphasis on the formative years
5. Develop evaluation procedures which will assess the degree to which cognitive, social-emotional, and neuromuscular learning has occurred at each level of development
6. Modify and adapt the progression of physical skills, games, and activities to meet the needs of the atypical child, including the emotionally, mentally, and physically handicapped
7. Experience for himself and be able to perform movement patterns, skills, and activities
8. Organize and involve large numbers of boys and girls for meaningful activity
9. Relate mathematics, science, music, reading, and children's literature and art to the child's elementary physical education experiences
10. Design creative activity areas, including movement laboratories, multi-use gymnasiums, and playgrounds which will stimulate children to explore
11. Demonstrate administrative ability in scheduling classes for activity, in developing budget procedures (including ordering and purchasing of equipment), and in developing procedures for use, care, storage, and distribution of equipment
12. Organize and develop an effective public relations program ough the use of demonstrations, parent involvement in physical fitness testing and as teacher assistants, serving as a resource person, or conducting workshops
13. Organize and conduct intramural and other recreational activity
14. Design and construct inexpensive kinds of equipment as needs of the activity may dictate (such as bounce-boards, balance beams, targets for throwing practice, paddles, hula hoops, etc.)

Many specific competencies have been identified by renowned experts in the realm of elementary physical education, and they can be found in the current literature. In the summary here are listed some of the competencies implied in this paper as being essential to the role of an elementary physical education specialist. Some are general in nature; others are more specific. They are not all-inclusive, I realize, but I have come to appreciate them as those which have had the most meaning to me in my four and one-half years of teaching experience.

But perhaps, the greatest competency of all is just to be *willing* to let the Susans in your life take you by the hand, to have the courage and patience to hang on, keep your eyes open and your senses alert, and let them show you what the game of elementary physical education is all about. □

Curriculum Alternatives

Directions and thrusts

MARGIE HANSON

Physical Education '73

CHILDREN need an environment of many sensory and social experiences to facilitate learning. Physical activity is a wonderful way to enrich their lives and to reach them as they grow and develop. The physical education period is a laboratory for many types of learning as children develop healthy attitudes toward social relationships and learn to value, interact, observe, think, and create. Physical education also helps them learn to communicate, to express ideas and feelings through movement and vocabulary.

Pupils learn to cooperate and to compete. They recreate. They develop skills and understandings which enhance their poise and self-confidence and they acquire such concepts as strong, weak, fast, slow, up, down, around, through, over, and under. They learn to judge space, distance, right, left, speed, force, as well as to anticipate actions of others. They learn in a laboratory of "doing"—how to listen, follow directions, communicate, and relate with peers as well as adults. They develop skills, functional fitness, attitudes, interests, and knowledges for a lifetime pursuit of health and happiness. Because physical educators are responsive to the needs of children and the changes in education, there is a new look in elementary physical education.

What is this new look? During the sixties the emphasis had three special thrusts—movement education, perceptual-motor development programs, and a multidisciplinary approach to learning. These continue to characterize good programs today, with some modifications. There is increased emphasis on the contribution of motor activity to the affective domain. There is increased concern about the motor development of the young child. There is a surge of interest in creative dance integrated with other arts. But these are general terms, and require some explanation.

1. What is movement education? How does it differ from the physical education of the past? The major goal of movement education is efficient movement for all of life's activities. Other goals include a knowledge, understanding, and development of the creative process, and learning how to learn.

A curriculum expressing that point of view —even a single lesson doing so—differs considerably from the traditional isolated unit approach, especially at the primary level. A theme, such as locomotion, flight, judging space, weight transfer, balance, or manipulation of equipment is decided upon, and all sorts of activities carried out to develop that theme. In locomotion, for example, a group of tag games might be used, teaching youngsters to run and stop through these games. They wouldn't be learning the games just for the sake of the games, but rather for the sake of the skills of running and stopping. As each theme is introduced and problems discussed, activities for solving the problems will emerge from the ideas of the children. Rather than taking a hula hoop and devising a number of activities for it, a theme or concept is chosen (perhaps manipulation of equipment) and many tools are collected and experimented with to develop good movement around that theme. A child gains a sound understanding of how he moves, what he moves, and where he is moving. Perhaps the feeling for this approach can be caught from a poem written by four-year-old Jeff in a movement education class conducted by Don Dino of Otero Junior College, LaJunta, Colorado:

Our class is called Unlimited
The movements are so free
It's fun to be a student
With friends that laugh with me!

2. The second thrust, perceptual-motor development, grew out of concern for the child with learning disabilities. Educators realized that if a child had trouble reading and only so much remedial reading provided help they would have to find other means to remove blocks to learning. The many successes of motor activities in clinical situations created a demand for schools to use motor activity as an approach to improve perception; hence the term perceptual-motor.

A rash of programs developed through the country. And as action outraced theory, documented evidence of cause-effect relationship was scant. In recent years, however, there has been evidence to support many of the educators' original assumptions. Studies have shown that:

—The slow learner is usually a poor motor performer, hence motor tests are a useful screening device.

—Patterns of development of the normal child do differ from the slowly developing child.

—Thought is associated with sensory input.

—Controlled movement depends on sensory input.

Reprinted from *Instructor*, January 1973.

—Transfer of skills and learning does take place under certain conditions. (For example, a child learning to pitch a softball underhand might be able to transfer this skill to serving a volleyball underhand. On the other hand he might not be able to pass a football efficiently.)

Perceptual-motor programs that are focused on space orientation, visual perception, auditory perception, kinaesthetic awareness, tactile experience, and motor skill development may be helping to develop learning power.

Interestingly enough, by the end of the sixties educators were discovering a great commonality between the content of movement education, perceptual-motor programs, and those for the handicapped children. Educators are now beginning to identify a much more meaningful physical education program focused on a progression of developmental activities, coupled with concern for each child achieving success by working at his own rate and according to his own needs and abilities.

The increased interest in the very young child has also led many to reexamine the contributions of motor activity to development. The value of play is a predominant theme in nursery school education. However, the focus has been on "learning through movement" such as: exploring, discovering, relating to others, sharing, developing confidence and courage. Now there is an added focus—"learning to move well." Enlightened leaders are achieving both goals simultaneously when the program is carefully developed and carried out.

3. The seventies have brought an increased interest in the third thrust of the sixties, the multidisciplinary approach, with a focus on the affective domain. With a renewed interest in the quality of life and a widespread, popular interest in the arts, there are increasing efforts to provide more opportunities for creative dance for children and to improve the quality of these programs. Like other motor activities, dance has a movement base. But it also has an added dimension, one of inner self-expression with aesthetic overtones, usually with rhythmic accompaniment.

Throughout the country increased interest also can be found in integrating various subject matter areas around a general concept. There are programs, for example, in which art, music, science, and physical education have united to focus on such concepts as balance, force, and direction, to help the child gain cognitive understandings through a variety of subject matter experiences—"Learning through movement while learning to move."

Government and private foundations have expressed their interest in establishing the arts as the core of the elementary program by funding pilot projects called "IMPACT" in five cities. (They're located in Alabama, Oregon, California, Ohio, and Pennsylvania.) Here art, music, dance, and drama have united to open up new possibilities for original thinking and creative expression for all children, not just a limited few. Teachers are learning to use the arts as important tools for teaching and for developing pathways toward deeper understanding of basic concepts in the academic subjects.

Today, concerned leaders are looking at a curriculum in a much broader way than ever before as they examine the unique and essential, yet complementary, role of physical education in total learning and child development.

* * *

Readers interested in pursuing further some of the thoughts presented in this article may by consulting the following resources:

Trends in Elementary School Physical Education. American Association for Health, Physical Education and Recreation, 1201 Sixteenth Street, N.W., Washington, D.C. 20036. 1970. 28 pp. (#245-25122) 50¢

Ready-Set-Go (Television series and manual for K-3). National Instructional Television Center, Field Services, Box A, Bloomington, Indiana 47401. Produced in consultation with AAHPER. 1970.

Film Loops for Elementary School Physical Education. (A series of twenty-four 8mm technicolor loop film cartridges on Basic Movement and Fundamental Skills). Available Holt, Rinehart and Winston, 383 Madison Avenue, New York, New York. Produced in cooperation with AAHPER, 1969.

Task Force on Children's Dance, Ed. "Over the Country Children Are Dancing." *Journal of Health, Physical Education, Recreation.* Oct., 1971, pp. 27-39.

Guidelines for Children's Dance. American Association for Health, Physical Education and Recreation, 1201 16th Street, N.W., Washington, D.C. 20036. 1971. 12 pp. (#243-25154) 50¢.

Terry, Walter. "The Impact of IMPACT," *Saturday Review.* February 5, 1972.

Flinchum, Betty M. and Hanson, Margie. "Who Says the Young Child Can't" *Motor Activity for Early Childhood.* American Association for Health, Physical Education and Recreation, 1201 16th Street, N.W., Washington, D.C. 20036. 1971. 16 pp. (#245-25152) 50¢.

Phys Ed is Movement Ed

KATE R. BARRETT

Physical Education '73

PARENTS and teachers have always known that a child needs to move as a way to grow. This need is expressed by children as they play. But educators, especially those in physical education, have a new awareness of how vitally important this need is and of the implications it holds for all of elementary education. This sharpened awareness, together with the new emphasis on the "wholeness" of how children learn, has thrust physical education into a new era.

The new era has many characteristics, but most significant is the idea that physical education is, in essence, a child's movement education—his education in and through movement. As an idea, movement education is not entirely new. What is new, however, are fresh insights into its potential and the emerging implications for elementary school physical education.

The need for carefully designed learning experiences throughout a child's education is now fairly obvious. More is known about early learning as well as the possible influence it may have on later performance and life. Although the term "early learning" usually is associated more with the preschool child, physical educators are expanding the idea to include all of

the elementary school years. When viewing physical education as a life-long experience, they consider the elementary school years a beginning, or foundation, in which the child should gain a unified understanding of movement to be better able to cope with future movement demands. This view suggests three interrelated goals:

1. A child should be able to move skillfully. He should be efficient and effective in movement situations, both planned or unexpected.
2. A child should develop awareness of the personal value of movement. Also, he should become sensitive to how he feels about his own movement, as well as the movement of others.
3. A child should have knowledge about movement and the principles which govern it. He should understand how this is applied to his own movement and that of others.

As physical educators have more clearly identified these broad goals for elementary school children, so have they clarified their beliefs about children and education. They view the child as an individual with a potential for his own unique development. He is a seeker and a doer who learns most effectively when the experiences are personally meaningful. He has his own ways, rate, and style of learning.

A child's education revolves around such goals as rational decision-making, independence in and love of learning, self-identity, self-acceptance, and self-worth. The fact that children implement experiences in a way that is consistent with these beliefs has influenced the direction of today's physical education.

The content of physical education is considered movement, with four major categories:

1. *Body*, or what the body can do.
2. *Space*, or where the body can move.
3. *Effort*, or how the body can move.
4. *Relationships*, or with whom or what objects the body can move.

Let's look more specifically at what is happening in terms of these categories. The general aspects of physical education—games/sports, dance, and gymnastics remain basically the same. The differences are in what is occurring within the specific activities. Suppose there is a problem, for example, on handling a ball or beanbag using different parts of the hands or feet (this focuses on the *relationship* and *body* categories of the content). A group of six- and seven-year-olds may be asked to find out for themselves the different things they can do with either object. They can be encouraged to seek different ways to handle the objects with their feet and hands. The experience serves as a starting point, a point from which a child and his movement potential (in this case more specifically related to object handling) will grow. After observing carefully what the children actually do, the teacher can decide how best to help each achieve even more.

With the same general emphasis, that of handling an object, a small group of eleven- and twelve-year-olds may be asked to improvise a game. Their work may focus on improving their ability to handle the ball with the goal of putting another player out (this focuses on the *relationship* category of the content). In their attempts to improve ball-handling skill, in activities with one or more players, the children may decide to work specifically on throwing for distance and accuracy. This may be done first without a runner and then with one. Letting pupils make their own decisions about specifically what to do gives them many opportunities for personal involvement in the learning situation. The more activities they develop and carry on, the more control they gain of their bodies. If he needs to, the teacher might suggest more challenging experiences.

In a lesson highlighting the expressive quality of movement, the focus may be on contrasting sudden with sustained movement while emphasizing the use of the total body (this focuses on the *body* and *effort* categories). Younger children might try to show sudden and sustained movements while traveling about a space by suddenly jumping to the ground, then slowly walking or lowering their bodies. Older children might refine a sequence which shows clearly an opening and closing action of the body while at the same time contrasting sudden with sustained movements. The teacher, as before, observes, assesses, and plans for the next set of objectives and activities.

With agility-oriented movement, children might begin working on the floor, experimenting with different ways to maintain and lose their balance, such as balancing on two hands and one foot, then rolling over and regaining balance on two knees (this focuses on the *body* aspect of the content). The children might be ten, eleven, or even twelve years old, since this is a fairly difficult concept requiring some previous experience. Once versatility and control is gained these movements might be applied to different arrangements of small and large apparatus—hoops, low hurdles, benches, boxes, tables, and balance beams. In so doing, the children are further challenged to gain mastery over their bodies in a variety of situations. Later on these children might focus on refining certain moves. For example, can they move gracefully from a jump to a walk to a squat in one fluid movement, rather than in a series of jerky movements. Stressing the use of different body parts *and* the idea of directional or level changes would give added challenge to children ready for it (this now adds the *space* aspect of the content and a new dimension of the body).

From these examples certain characteristics of the physical education environment are evident. First, experiences are mainly individualized so each child can work at his own rate and in ways meaningful to him. This is accomplished by structuring each experience so that it allows for the natural differences among children. There is no consistent "pattern of structure" because children's needs differ from situation to situation. Secondly, there are always opportunities for children to make decisions regarding their own learning. The type and amount of these decisions reflect the teacher's understanding of children, movement, and children learning movement.

The actual material or content and the goals toward which children are working make evident a third characteristic. Lessons tend to be

designed around a major movement focus, such as handling an object, contrasting sudden with sustained movement, maintaining and losing balance. The more specific and potentially individual goals for each child emerge as the lesson or lessons progress. These goals can then be identified in more specific terms (i.e., behaviorally). Goals such as a specific type of throw (overhand throw, two-handed underhand throw, and so on) or a specific gymnastic move (head stand, forward roll) are no longer as important as ends in themselves, but rather they are a part of something much larger which relates to a child's ability to adjust his movements to different situations both prearranged and unexpected. To accomplish this a versatile, dexterous, and self-directed mover is needed. As the child works within the structure of each experience, the teacher must help him challenge himself further, and in so doing help him gain greater control over his body.

The concept of progression is inherent within all the ideas discussed, provided the child is helped to understand himself in relation to his movement potential. The team of the child and the teacher striving together toward these goals has potential for a very exciting and challenging six years.

Physical educators are committed to the importance that movement plays in a child's education. They are committed to the goal of skill in movement, appreciation of movement, and knowledge of movement as they develop in an educational setting of decision-making, independence, and self-confidence. A different approach is needed from that of the past if we are to help children become competent in their own right to take their place in the world.

movement education challenges an inner-city school

THERESA RIZZITIELLO

During the 1970-71 school year we at Y
have presented the philosophy and utilize
niques of movement education with children f
ily populated inner-city school, P.S. 134, in C
York City. When we designed our work with
at P.S. 134, we had a three-fold purpose in
we wanted to generate a developmental serie
in movement education for a group of highly
grade students. Second, we hoped to show th
teachers at P.S. 134 how they could comfor
porate a variety of methods in their existing
And last, we expected to involve York Col
education students in the program to introd
techniques that would enhance their teachin
With the cooperation of the principal, th
teacher, the children, the students from Yo
parents of our first graders, we were able to
a variety of perspectives. Drawing from thes
fashioned a program to suit the needs and ab
first graders. The primary concern underlyin
was whether or not the teaching styles would
and effective when applied to large groups
with diverse backgrounds.

We decided to approach Arnold Raisner,
P.S. 134, because of his reputation for r
programs and techniques to individualize ir
all areas of learning. P.S. 134 is now partici
second year of a federal grant for individuali
instruction (IPI); it is the only school in Qu
been selected. Although only a few classes a

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responses from the children who, at first overwhelmed by the freedom and release we offered them, were satisfied to run at breakneck speed. The various sound patterns of the drum helped elicit appropriate kinesthetic responses.

The Safety Factor

The only limitation we placed on the children was the uniform response to the catchword "freeze." The children derived pleasure from developing a game from this as they assumed a unique body pose of "frozen motion" with each call to freeze. They also enjoyed the lack of restriction they experienced from barefooted movement.

We decided with the children that if someone collided with someone else, he would automatically sit out for a short period of time. In an attempt to provide a counting game for the child while he was on the sidelines, we suggested that he count to 50 before returning to the activities; the children's abilities modified the count to ten.

The Individual's Sense of Self

When we began, during the mass activities, the children were content to move in groups. The individual child was unable to relate his own body to the surrounding area; he did not have the confidence to "do his own thing." At this age level it is natural for the children to want to be in a group. We wanted to direct each child to the point where he would enjoy exploring his own abilities. We gradually tailored our activities to this end.

One of our techniques was to provide enough materials for each child to have his own piece of equipment. For instance, we had as many playground balls, hoops, ropes, and mats as we had children. Each student then had the opportunity to develop his personal abilities and to respect the space of those around him. We purchased a sheet of zarkskin—a two-inch thick, soft, foamy material—for a nominal fee, and cut the large sheet into 2′ x 3′ pieces to provide a mat for every child. It is impossible to relate the excitement the children displayed at the opportunity to have their own equipment to work with. The implications of this need for individuation in teaching and learning are unlimited.

Awareness of Body Shapes

Recognizing the need to develop concepts of different parts of the body, how they move, and what they can do, we planned a series of movement tasks. Because we were continually concerned with the need to improve the language level of our youngsters, we incorporated verbal

Theresa Rizzitiello is assistant professor of health and physical education at York College of the City University of New York, 158-11 Jewel Avenue, Flushing, New York, 11365.

activities into the lesson. For example, we had the children use jump-ropes to duplicate the letters of the alphabet and to translate the shapes into body shapes. At one point, we asked the children to try to be "as tall as the Empire State Building." Then we realized that some youngsters had never heard of it. But we did find that imagery as a form of communication had value in terms of both body language and verbal comprehension.

Development of Manipulative Skill

Refining gross motor abilities to more delicate manipulative skills is necessary not only in physical education activities but in the classroom as well. We thought that this might be a difficult task. However, we quickly discovered that the six-year-olds had a high level of skill in ball handling. Once again, the problem was not so much in working with the balls, but in helping the youngsters to use this equipment to understand the concepts of high-low and near-far, and to develop a greater degree of control. With the challenge of an obstacle course of traffic cones and hoops, they were able to move around, in-and-out-of, and under and over by bouncing and catching with a greater degree of freedom, control, and confidence.

Involvement of York College Students

The enthusiasm, excitement, and energy of the first-graders provided a catalyst for the college students; they were forced to become involved. The prospective elementary school teachers were able to work with the children on a one-to-one ratio. By participating with individuals, small groups, and the entire class, future teachers could sharpen their own awareness of a child's behavior. The opportunity for interpersonal relationships helped the college student to develop his own sensitivities to the youngster and his perceptions of the world. The York College students were constantly impressed by the amount of physical energy they needed to keep up with the six-year-olds.

As a result of the variety of activities and the demands of the children, the potential teachers were stimulated to invent additional tasks to challenge the youngsters. Through their involvement in this program the young adults increased their awareness of the value and fun inherent in learning through movement and self-discovery. In addition, it was rewarding to see them recognize the important connection between the physical educator and the classroom teacher in interweaving the development of the child's cognitive and motor abilities.

The Classroom Teacher and Movement Education

Throughout the program, the classroom teacher, Linda Pilc, was an active participant and supporter. She helped identify individual temperaments, backgrounds, and development of the children in the class. With her cooperation we were also able to determine whether or not there was a direct correlation and carry-over between the children's learning accomplishments and developed self-confidence in the gym and in the classroom. There is usually no sure way to determine the degree of insight and understanding that the classroom teacher develops in relation to a program being conducted by a group of college people who come into the elementary school twice a week. We were fortunate to receive an unsolicited piece of positive feedback in the form of an article that Miss Pilc wrote for the March issue of the *P.S. 134 PTA Bulletin*. In this article, Miss Pilc described various aspects of the program and revealed great sensitivity to and appreciation for the aims of our project.

> ". . . it has been found that children who do not have experiences using their bodies and muscles are often at a disadvantage in the classroom. The child who has a solid background in motor development will in turn be a more competent and completely functioning human being. . . .
>
> Another asset to this program is that the child becomes aware of his capabilities without feeling he is the least capable one in the class. He learns that different people are good at different things. Since there is no set standard, a child is more willing to accept his weakness. Furthermore, he is not overwhelmed by his lack of ability.

Future Plans

Before our year's pilot project was completed, we began to develop insights into where we have been and where we hope to go. We have been intimately involved in an often exhilarating, often frustrating learning experience. The eager participation and warm welcome of the children have been a constant source of regeneration for us. On our bi-weekly visits it was always difficult for us to know exactly what the mood of the class would be; sometimes even the classroom teacher could not predict what would happen. This is part of the continuing challenge of teaching at the elementary school level.

We recognize the need to focus on every opportunity to increase the language development of these youngsters and we hope to share our observations and questions with the speech specialists in the school. In addition, we have seen many examples of how the child with a naturally high energy level, often mislabeled "the disruptive child," can be directed through appropriate learning experiences to channel this energy to productive ends.

The encouragement and interest of the parents of the children participating in the program, coupled with the continued support of those at P.S. 134, have further stimulated us to commit ourselves to expanding the program in the 1971-72 school year. With the funds that the principal has already allocated, we plan to purchase additional equipment. We hope to be able to expose more children to the program as well as to continue to work with the same group of youngsters that was involved last year. We have been asked to present workshops for classroom teachers in the surrounding school district so that they can become skillful in presenting similar programs in their own schools. We have even begun to bring movement education activities to pre-kindergarten children in a nearby day care center program.

On a broader scale, we have interested the New York City Board of Education and the City-Wide Supervisors in Physical Education in our program. We are conducting a series of workshop seminars so that movement education can spread to different areas of New York City. In this way, we hope to be instrumental in bringing more meaningful and challenging experiences to meet the complex needs of over 600,000 New York City youngsters. □

games & humanism

Humanism has become a household word—or at least a schoolhouse word. Physical educators are being challenged constantly to reexamine their philosophy, goals, values, and curriculums in relation to the broad humanistic goal of optimum development for the individual. The current literature and materials dealing with elementary school physical education place heavy emphasis on games and competitive experiences at varying levels of complexity. Is humanism compatible with a competitive games emphasis? It can be if we are willing to relinquish some of our sacred ideas about games for children.

A revised approach to teaching games in physical education has been under empirical investigation at the Teacher Education Center for Elementary School Physical Education at the University of North Carolina in Greensboro, North Carolina since 1971. Experimentation with different approaches to games was influenced by two convictions. First, the impact of humanistic principles can no longer be ignored or be given only lip service. Second, that impact necessitates such changes as those discussed here.

Implications of Humanism

The implications of current humanistic educational principles in relation to the teaching of games in physical education necessitate new approaches. For example, if each child should be respected as a unique individual, capable of learning in his/her own style and at his/her own rate, it is inconsistent to persist in the practice of: (1) selecting one game for a whole class or group, thereby assuming that all children in that group are able to cope equally well with the physical, intellectual, social and emotional demands of that game on that day or (2) designing game situations in which the larger, stronger, quicker, or more verbal child dominates the situation and thus becomes our barometer of success.

The change elicited by the acceptance of humanistic tenets is dynamic. However, the role games play in a child's education must be viewed within the context of the contemporary teaching learning environment rather than the context of sports and athletics in society. Children's activities in recreation programs, Little League, Y, intramurals, recess, and other patterns which are *voluntary* are not germane to a discussion of games within the framework of a required physical education program in the elementary school.

In the past, observations of children playing games in physical education classes generated several persistent questions:

1. In addition to the physical skills needed, can the children cooperate, collaborate, and make decisions so that the game is satisfying for *all* participants?

2. Why do some game situations seem to foster, in *some* children, irrational, excitable behavior that results in an unproductive contribution to the game outcome, or a tearful exit from the game because "I don't never get my kick"?

3. Why does the game situation seem to foster, for *some* children, a heightened awareness of mistakes—their own and others'?

4. Why do some children always have to be coaxed to play? Why do some children find excuses not to play?

5. What is being learned in the game? Is it important to learn? Are self-concepts improved? Are interpersonal relationships enhanced?

The search for answers to such questions is forcing us to clarify what is meant by a humanistic position and to identify an approach to games in the elementary school which is consistent with that position. Learning to participate effectively and purposefully in games should be a vital part of every child's education. To implement this belief so that the experience is personally meaningful requires a different approach to the teaching of games.

A New Look at Game Skills and Game Forms

A new approach to the meaning of games suggests two significant theses. First, skills derived from specific sports are not really so important for elementary school children to learn. The chest pass, the finger volley, the knee trap, the inside of the foot dribble, and other specific game-oriented skills are not generally useful to children, especially in game situations which are unpredictable and which continuously change. The practice of isolated skills is not adequate preparation for the demands of a game. Consequently, a more comprehensive definition of skill and a different approach to teaching game skills is warranted. Learning experiences must be based on an analysis of the *total* movement demands of various games. The progression of experiences is designed to lead to the development of a skillful mover, one who possesses "versatility and dexterity in his ability to move . . . in movement situations that are both planned and unexpected."[1]

The second significant thesis is that there are many possible game forms. The possibilities, which far exceed what is suggested in the literature, offer teachers many different educational avenues for children's experiences in the learning of games. Games forms fall into two distinct and broad categories: *pre-determined* and *original*. The games in both categories have structure, but the structure is determined in different ways and at different stages in the children's experience.

The common form of the *pre-determined* game is the traditional or conventional game selected by the teacher from any of the available resources or from experience, and taught to the children exactly as originally conceived. Hundreds of games fall into this category and they have been used for eons to meet the needs of everybody.

Original games are the creation of the teacher and/or the children and are not found in any literature. They may be designed in any of three ways:

Teacher designed. The teacher literally makes up a game which is designed in relation to the particular situation and the teacher's objectives for those students.

MARIE RILEY is in the School of HPER at the University of North Carolina at Greensboro, Greensboro, North Carolina 27412.

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[1] Kate R. Barrett, "I Wish I Could Fly," in *Contemporary Philosophies of Physical Education and Athletics*, R. Cobb and R. Lepley, eds. (Columbus: C. E. Merrill Pub. Co., 1973) p. 5.

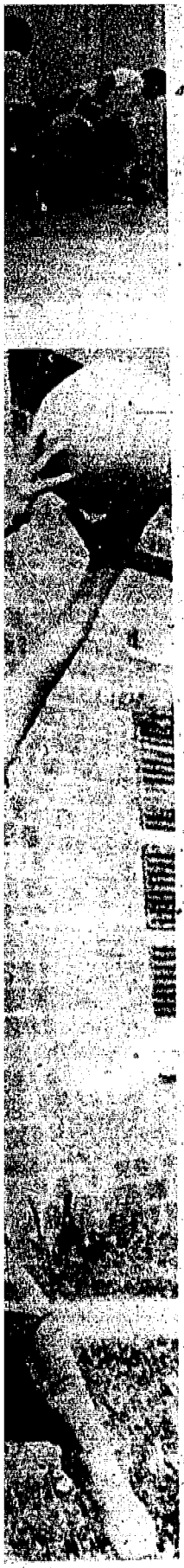
Teacher/child designed. The teacher and children together start from scratch to make up a game. The teacher may influence this approach by planning for the use of certain types of equipment, appropriate safety rules, and/or skill patterns. After such limitations are imposed, the teacher can let the children decide such things as number per side; rules for starting, continuing, and scoring; boundaries; and other general rules. A second alternative within this scheme is for the teacher and children together in class to design a game. The teacher guides the discussion and participates in it; the resulting game is a product of joint decision making by teacher and children.

Child designed. The child designed game is a creation of one or more children and the resulting structures reflect the decisions made solely by the children. The teacher plays an important role in helping the children identify the decisions they must make. Safety is a primary consideration. The child designed game is unique in that, in the beginning, the final structure is completely unknown to teacher and children.

For a variety of reasons, both predetermined and original games may need to be modified. Evaluation of the game being played may reveal that there is too much inactivity for the majority or too much dominance by one or two players, the rules seem inappropriate for the children's stages of development, or the boundaries may inhibit the flow of the game. The teacher must decide whether the modification is to be the responsibility of the teacher, the teacher and children, or the children alone.

Finally, all forms of games can be used to emphasize varying degrees of relationship to the traditional team and individual sports. Three emphases are possible: (1) the game may be related directly to a specific game or sport; (2) the game may be a combination of more than one conventional game or sport; (3) the game may be very non-specific, containing elements of several games such as dodging, intercepting, off-balance catching, and passing to spaces.

Photos: Kate Barrett and Alex McNeill



Experimentation with Games Teaching

The alternatives available for game forms, a more dynamic perspective of game skills, the belief that games in the elementary school should be a valid experience for each child, and the belief that *all* children have the right to succeed and to progress at their own rate resulted in a four-year examination of implementing some of the aforementioned ideas in physical education classes for elementary school children. Particular concern centered on sustaining children's natural interest in games, improving skills in games play, and being consistent with the educational beliefs which reflected humanism.

All of the experimentation reported here has taken place at the Teacher Education Center for Elementary School Physical Education at the University of North Carolina in Greensboro. While children in all six grades have been involved to some degree, the focus has been on grades five and six. Original game forms and a nonspecific direction were emphasized because such procedures were consistent with the Center's philosophy and that of the elementary school involved (Julius I. Foust Elementary School in Greensboro). The teacher/child and child designed games which evolved came from classes in which the learning experiences were planned to elicit versatility in a variety of constantly changing situations. The climate for learning was structured to allow individuals to work at their own rate, to feel free to make mistakes in the process of becoming more skillful, and to become increasingly independent as learners. Inherent in this environment was the opportunity for decision making and choice of alternatives by the students.

The following findings suggest validity due to consistency of occurrence and the fact that some of the literature substantiates the findings.[1] Through grade six, the majority of children seem to:

1. choose cooperative situations of an early developmental stage, in which the improvement of skill is a prime interest and the partner is used for his/her usefulness toward that goal.

2. choose to play a game which permits the use of more than one ball (two players, two balls).

3. choose small groups (rarely more than four) and to seek others of similar ability. When children mix abilities by choice, they show a tolerance for the differences and usually design a game which accommodates the variations in skill.

4. make rules sometimes, sometimes not; but they will bend the rules when needed to make the game work.

5. give the game a name only if asked to. They may use the name of a known game even if resemblance to that game is remote. More often, they will use the content to name the game, e.g. "the striking game."

6. be self-oriented. A game of four is often no more than two twos. With younger children, a group of threes is really three ones.

7. keep score only when asked to. If they score at all, there is a tendency to score by subtraction. (Start with 12 points; if you miss, you lose a point.) If they start to keep score, they often forget to keep up with it. With or without a score, they rarely announce a winner.

8. be concerned mainly with making the game "work" so all can participate.

The foregoing observations have been made on a select group of children, most of whom would be classified as disadvantaged in terms of socio-economic background and opportunity. The possible influence of this social background may be important to the interpretation of the findings.

In search for answers about the role of games in the physical education program of an elementary school, we must (1) try continually to gain deeper insight into the nature of games and to analyze the demands of the games on the players; (2) try to give *each* child ample opportunity to become competent in games play and to enjoy playing at his/her level; (3) give each child a basis for choice that does not reflect constant failure; (4) continue to try to gain insight into the child's point of view.

The concept of humanism has the potential to give new direction to the teaching of games in the elementary school physical education program. It will mean new approaches, new methods, new expectations, new lesson plans. It can foster a new concept regarding sport in education. It is an idea which requires work—a good one if you're willing to work it out. □

[1] E. Mauldon and H. B. Redfern, *Games Teaching*. London: MacDonald and Evans, Ltd., 1969.

spotlight on dance

Creative Movement Exploration

JOAN HAYS, chairman of the Dance Section of the Texas AHPER, is director of dance in the Department of HPER at Southwest Texas State University, San Marcos, Texas 78666.

For the past two decades, educators on all levels have become increasingly concerned with creativity in the classroom as part of the teaching and learning process. Efforts toward enhancing the development of individual creativity within the scope of the daily educational process have been, more and more, directed toward the elementary level. This is logical because the first few years of exposure to formal education can make the difference between a youngster who allows himself to examine his learning environment with a probing, questioning mind and one who settles for or even demands rote learning for the duration of his educational experience.

All areas of subject matter taught on the elementary level have been carefully reviewed by educators to determine where and how materials can be most effectively taught using the new "creativity enhancing techniques," sometimes referred to as problem solving techniques. This is all well and good, but it seems that in some instances we have, as a result, put the cart before the horse—making for difficult, uphill learning.

Let us examine this idea in terms of physical education on the elementary level. It has always been assumed that the most desirable outcome of physical education is a person who can and does play several sports well, or dance well, or perform well in the area of gymnastics. We make a lot of noises about worthy use of leisure time, a sound mind in a sound body, and a number of other equally fine educational outcomes. The fact remains, however, that our picture of the truly physically educated man is one who is successful in some type of athletics, even if it is only on a weekend or evening basis. A person who can participate actively and successfully in athletics as a vocation or avocation is likely living a full, vigorous, and healthy life. That sounds like an excellent outcome.

But at this point we really start to get things turned around. These *are* desirable long-term, specific outcomes for a physical education program. We then look at the elementary physical education program and set up, if not on paper at least in our attitudes and ideas, some dangerous preconceptions about physical education. In a program of elementary physical education designed to enhance creativity, preconceptions are not only dangerous, they are downright subversive. When we start working with early elementary children, despite our creative intentions, we have already determined that the desirable outcome of physical education is to be able to perform a set of specific skills. As a result, every movement exploration is designed, consciously or unconsciously, to lead up to these specific skills. For example, exploration activities with a ball are always done with the idea of developing ball handling skills and, ultimately, ball handling games—team sports. Explorations with mats automatically, we think, must lead toward formal gymnastics skills. In the *long* run this is a positive outcome. It is also *only one of several* possible positive outcomes.

Unfortunately, as soon as the teacher or program director sees movement exploration only as a means of leading up to specific skills, he unconsciously eliminates many exploratory tangents which would be challenging, pleasant, and enriching experiences. If we are always teaching toward some preconceived specificity, we have lost the basic purpose of education for creativity—discovering new and interesting juxtapositions of known materials. As a result, physical education becomes nothing but education for sports and athletics rather than a means of education and of reinforcing learning through the physical sensory mechanisms.

Creativity really means an individual looking at aspects of an activity or situation in a way that he never thought of before. To allow this to occur, we must give the child the opportunity to actually look at *all* the aspects. It may be a shock to some that a child may think of something in relation to a given situation that we had not thought of previously. If our teaching pattern has a specific preconceived outcome, then that child's response is incorrect and therefore unsuccessful for him. If we are honestly trying to encourage creative movement exploration, that new response is not only correct—it is superior.

By patterning all our educational activities with desirable "adult" outcomes in mind, we limit our ability to really educate our children physically and otherwise. A truly educated person is one who is willing to explore situations and make or withhold value judgments about those situations based on an intelligent synthesis of all possibilities (or as many as he can determine at a given time). If his educational process has always been geared to a limited exploration leading clearly to specific ends, his own evaluation of situations with which he must be able to grapple is going to be limited. Whatever problem solving he does will involve only those obvious aspects which can be found easily.

By always thinking of specific skills as the major outcome of physical education, we often lead up to and get hung up on the ultimate specific skill. We practice it, perform it, and nag about the correct way to do it until the activity has been destroyed for those who cannot achieve success in that particular skill at that particular time. When this lack of success becomes frequent, as it does for many children, we have destroyed physical activities for them, rather than creating potentially truly physically educated people who can enjoy indulging in movement as a means of developing their own mental and physical abilities.

As a result of a lack of successful physical educational experiences, we have a series of generations of people who know they ought to participate in some kind of activity but hate it because they never had any success at it. These people see physical education merely as training for athletics and not as a means of enlarging their own communicative abilities or their sensitivity to their environment and to one another. Many students who come to creative rhythmic activities come willingly, work themselves vigorously for an hour—with great glee—but hate "PE" because they do not feel successful or mentally challenged in the typical "specific skill" atmosphere in the elementary school physical education class. In other words, they are frequently not able to perform well and they are also *bored*.

What is needed is an elementary physical education program which allows students to discover movement as movement; allows movement and the kinesthetic sense to be a means of enhancing and enriching academic learning; and allows movement to be recognized as a means of communication. Movement should be experienced

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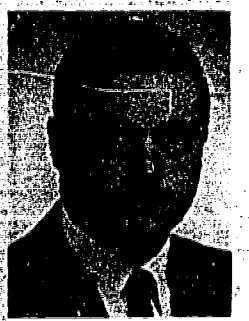
in every possible way so that the child has an opportunity to move every way he can, rather than make only those rather limited movements required in specific sports or dance skills. This would allow for individual success as well as making movement classes more interesting.

For example, one always thinks of physical education as being involved with strength, agility, flexibility, etc. Our bodies, however, are equipped with a sensory mechanism called kinesthesis and an intellectual involvement with this sense which allows a communicative ability called empathy to function. Through these two devices—kinesthesis and empathy—the human body can actually learn through movement. The child can learn through physical movement how it would feel for the wind to blow a piece of paper; how the ocean waves undulate, swell, and curl; how softly fog creeps. This kind of movement experience can make words, experiences, and environments more meaningful. Much of our communication is gesture, which reinforces what we are saying. Why then shouldn't gesture, a perceptual motor activity, be used as a means of increasing awareness and understanding, a means of reinforcing our total learning process—physical education in the most literal sense?

Movement experiences should be fun and challenging, both physically and mentally. The challenge comes easily when children are asked to solve movement problems that involve thought processes. It becomes fun and creative when the child discovers that he can make a correct and successful response even if it is not the same as his neighbor's. Once the child has had an opportunity to discover the multitude of ways he can move his body and why it moves as it does, when he finds movement a means of learning and communication as well as a discipline, it can be used successfully as a means of reinforcing many aspects of his education. Then he will be prepared to analyze and solve the movement problems presented by specific activity skills. He will then feel confident in his own movement ability and will be able to determine the activities in which he has the most interest. Finally, he will have experienced success within physical education and will not walk away from it, or dread the fact that he must participate in "PE." He will, in fact, have the horse before the cart, using movement as a means of reinforcing his education and his own self-image. Ultimately he will be ready to add specific movement skills to his education as well. □

The Nongraded Concept and Physical Education

STAN CUTLER JR.



Stan Cutler Jr. teaches physical education in the Port Washington (New York) Public Schools.

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In recent years, nongraded elementary school instruction has become increasingly popular because of reports, studies, and readings that indicate that nongraded programs have certain advantages over graded programs. Graded and nongraded programs may be appraised by comparing the characteristics initially built into each and thus differentiating one from the other.[1]

Graded Organization

Typically, the graded school is characterized as follows: (1) the class is taught as a whole; the teacher teaches the same thing to all of the children in the class at the same time. (2) The course of study is carefully planned in detail for each grade. (3) Children are seen as making a set rate of progress throughout the course of study. The rate of progress in each grade is determined by experience as one which is suitable to the majority of normal children in each grade. (4) Grade levels signify definite achievement levels. (5) Individual differences are reduced as much as possible in each classroom.[2]

Nongraded Organization

Perhaps the central theme of nongradedness is expressed by Goodlad and Anderson, "The Nongraded School is designed to implement a theory of continuous pupil progress: since the differences cannot be substantially modified, school structure must facilitate the continuous educational progress of each pupil. Some pupils, therefore, will require a longer period of time than others for achieving certain learnings and attaining certain developmental levels."[3] In nongraded classes the emphasis is on the child's responsibility for the direction of his program. The child is encouraged to develop activities in his own areas of interest, with the cooperative planning of the teacher.[4] Regarding evaluation, Goodlad and Anderson suggest that "what is needed to replace the system of grade norms is a system of more fluid child-development norms, in which each child's reactions represent a separate statistical universe and in which normalcy has primarily an individualized meaning."[5]

In spite of the fact that many schools and school systems are trying fresh and novel ways to implement their physical education programs, there is evidence to indicate that many elementary school physical education programs remain typically graded. Mosston states, "Most curriculums in physical education seem to be singleminded, predetermined, and rigidly fixed in their distribution over the year. . . . There is no relation between this structure and the performance status of so many varying students.[6] Mosston also comments that in physical education it is common to hear the teacher complain about the failure of the class to reach the standard of performance presumably suited for that grade level. This complaint is rather common in school, and is, no doubt, a result of rigid acceptance of graded materials.[7] In addition, many of the current textbooks on physical education continue to characterize programs in the traditional graded sense, where all children of a certain age or grade level receive instruction based upon the characteristics of the so-called average of the group.

A recent study compares the relative effectiveness of graded and nongraded physical education programs for boys in grades 4-6. While the results indicate no significant differences between the groups in body image and attitude toward physical education, there are significant results for the nongraded group in physical fitness, motor ability, and soccer skills.[8]

The following is a conceptual model of a nongraded physical education program presently being conducted at the Flower Hill Elementary School in Port Washington.

[1] John I. Goodlad and Robert H. Anderson, *The Nongraded Elementary School*, New York, Burlinghame: Harcourt, Brace and World, Inc., 1963, p. 58.

[2] James Francis Lindsey, "A Study of Provisions for Meeting Individual Differences through Graded School Organization." Doctoral Dissertation, Univ. of California, Berkeley, 1966.

[3] Goodlad and Anderson, *op. cit.*, p. 52-53.

[4] Bernice J. Wolfson, "The Promise of Multiage Grouping for Individualizing Instruction", *The Elementary School Journal*, April 1967, p. 355.

[5] Goodlad and Anderson, *op. cit.*, p. 105.

[6] Muska Mosston, *Teaching Physical Education*, Columbus, Ohio: Charles E. Merrill Publishing Company, 1966, p. 137.

[7] Ibid, p. 36.

[8] Charles Stanley Cutler Jr., "A Comparison of Attainment of Selected Physical Education Objectives in Graded and Nongraded Physical Education," doctoral dissertation, New York University, 1972.

Role of the Teacher and the Learner

Policy Statement

Each learner, in conjunction with the teacher, establishes the objectives he will pursue.

Rationale

1. Learning is a personal and individual matter.

2. Learning takes place more effectively if the learner actively participates in selecting and setting the goals of learning and in planning ways to attain them.

3. The teacher should aim toward developing self-regulated behavior which is dictated by independent thought and decision on the part of each learner.

Implementation

1. The teacher and learner jointly determine the level and nature of his activity.

2. Learners are encouraged to pursue tasks related to interests they have developed.

3. Learners in the primary grades are encouraged to participate in decision making.

Instruction

Policy Statements

1. Learning opportunities are provided on the basis of individual needs, interests, and abilities.

2. Learning opportunities are paced so that each child, with guidance, is able to progress in relation to his own rate of development.

Rationale

1. The most effective learning occurs when opportunities are provided at the appropriate time in a child's development.

2. Children differ in their rates of learning, and furthermore, the same child progresses at different learning rates in different learning situations.

3. In addition to individual differences, intra-individual differences exist in which there are trait-to-trait differences in the same individual.

Implementation

1. A longitudinal view of the program, in which the learner is restricted only by ability or interest, not by age or grade level, replaces the graded concept which implies that bodies of content may be identified for a particular age or grade.

2. The program is designed to help the learner build desired learning upon desired learning, in a continuous, sequential fashion. The slow learner is provided more time to achieve a given task, while the fast learner is also allowed to proceed at his own rate to the extent of his ability.

3. In addition to choice of an activity, the learner determines how he will participate in the activity. For example, he can participate individually, developing and improving skills; he can participate in small groups on skill development or playing in lead-up games; and he can participate in the large group activity, playing the sport.

4. The learner has available several instructional arrangements. He may select a contract arrangement, in which the teacher has pre-determined the nature and extent of the content to be covered. He may select an arrangement in which record keeping of qualitative or quantitative performance is maintained. The learner also has available instructional aid in the teacher, high school student teachers, sixth year student helpers, to aid in the development of objectives.

Organization

Policy Statements

1. The program is organized to facilitate the continuous and cumulative learning of each child.

2. The program is organized so that alternate learning activities are available to the learner, and opportunities within these activities to progress at different rates and work at different levels of ability.

Rationale

1. Learning is a gradual process which occurs over long periods of time.

2. A learning situation appropriate for one learner may not be appropriate for another.

3. Every child needs, from the point of view of both efficient learning and healthy development of personality, a curriculum in which he can succeed.

Implementation

1. The curriculum is expanded to include as many activities as possible.

2. Choice within choice. (See instruction #3, #4).

3. A mixed curriculum is used whenever it is possible.

4. All units of activity are open-ended. Although some content is required, the amount of time the learner must remain in that unit of activity is flexible and optional. The interest and ability of the child are the main determinants.

5. Full use is made of teaching assistance, especially high school students and sixth year students.

Evaluation for the Purpose of Reporting Pupil Progress

Policy Statements

1. The adequacy of each child's progress is an individual matter.

2. The evaluation of learning should recognize individual differences in the learner. It should be purposeful, continuous, and informative for both student and parent.

Rationale

Each child is seen as a separate learner with needs and potentialities at variance with those of all other children.

Implementation

1. A longitudinal growth picture is constructed in which each child's achievement can be presented without need for recourse to grade norms.

2. The learner assists in the development of the progress report.

3. In his evaluation of the student, the teacher gives prominence to individual pupil conferences, parent conferences, and case conferences. □

Carry-Over Physical Education in the Elementary School

CORNELIUS R. O'DONNELL is supervisor of elementary physical education for the Matawan Regional Schools, 93 Broad Street, Matawan, New Jersey 07747.

Physical education, especially in the elementary schools, is often the stepchild of the total curriculum. Its only value, in the eyes of many, is to let off steam; the same old games are fun but don't really teach anything in the primary grades. In the upper elementary, middle, and junior high schools the physical education program frequently starts and ends with the teaching of skills necessary for varsity team sports, with an occasional additional activity such as volleyball thrown in. Of what lifetime value is such a program to the children? What about the majority of the boys and girls who will never be varsity athletes? Are there not some alternatives for these students?

In the past there were some valid reasons for the poor quality of physical education programs—lack of money, facilities, equipment, and personnel; and resistance to change by teachers, administrators, and boards of education. Then in 1965, through Title III of the Elementary Secondary Education Act, money became available from the federal government to improve such programs.

A Title III grant of $7,500 was awarded to the Matawan (New Jersey) Schools for 1968-69 for the planning of Project COPE—Carry Over Physical Education. Such prominent physical educators as Gladys H. Fleming, Hazel M. Wacker, Nettie D. Smith, Gabe Vitalone, Roger Rada, and Daniel P. Stanley were utilized as consultants extensively during the planning stages. A program was laid out and a budget was compiled. It was decided to use one elementary school in 1969-70 as a pilot for the district.

The Broad Street School was decided upon as the pilot school and funding was awarded in the amount of $67,750.00. Staff was hired, equipment was purchased, and the new curriculum was started. All children at the Broad Street School were scheduled for swimming instruction once a week in addition to their regularly scheduled physical education classes. The primary grade program was built exclusively around movement education techniques, which had been introduced in the district in 1967. Upper elementary grade children were introduced to archery, bowling, ice skating, and gymnastics in addition to team sport skills which are also important in a good physical education curriculum.

A course was developed, in conjunction with Trenton State College, to study ways in which the correlations between physical education and other disciplines could be improved. This course was taught in Matawan by Sal Abitanta, director of elementary physical education for the New Jersey Department of Education, and was open to all teachers of the Matawan Schools professional staff. Participants included the elementary physical education staff, classroom teachers, remedial reading specialists, special education teachers, and a school nurse. Activities, games, and techniques were developed whereby reading, art, music, arithmetic, and geography could be taught in the gymnasium.

The needs of special education students are vastly different from those of the "normal" child. In order to meet these needs a teacher with training and experience in both special and physical education was employed. Since special education students were not housed at the pilot school, where swimming could be part of their regular program, a Saturday morning program was set up to provide them with swimming instruction. The Saturday COPE Program was designed to provide a high incidence of success, and to eliminate failure as much as possible, in the hope of improving the self-image of the students.

A pilot program with a limited number of students manifesting perceptual lags was started with a part-time teacher seeing each child selected 30 minutes daily. Scheduling was worked

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A professional staff course

out with classroom teachers to cause as little disruption of classroom routine as possible. Pre- and post-testing indicated improvement in 72 out of 73 students in the program.

Consultants made periodic visits for evaluation; a general evaluation was conducted as the pilot year passed the halfway point. The feeling was that none of the activities had failed, but that they had had varying degrees of success. Based on this evaluation, application was made for the third and last year of funding (1970-71) in the amount of $47,425.00.

The program for 1970-71 was revised to provide wider use of equipment, the introduction of roller skating, and the expansion of the perceptual and Saturday programs. The course for teachers was dropped because its purpose had been accomplished.

Wider utilization of equipment was accomplished by setting up a rotation schedule for the use of equipment between the five elementary and two middle schools. Ice skating was expanded by having the Maintenance Department plow a rink at each school. Parents were asked to donate ice skates for use by children who had none. Fifty pairs of roller skates were purchased and procedures for teaching were formulated by the physical education staff.

The expansion of the perceptual program was three-fold. First, two empty classrooms at the Broad Street School were converted to a "Learning Readiness Center"; this involved the removal of a wall, some redecorating, and the purchase of equipment. Evelyn Bieber, the teacher who had conducted the preceding year's pilot program on a part-time basis, was employed full time and assigned to operate the Learning Readiness Center.

The second part of the perceptual program involved the assignment of one teacher to spend a nine-week-session at each of the other elementary schools to establish an awareness on the part of parents and the professional staff of the content and purposes of a perceptual program. It was hoped that a program as it was conducted at the Broad Street School would serve as a prototype for the whole school district.

The third part of the perceptual expansion was the establishment, as part of the Saturday COPE Program, of some perceptual remediation for third, fourth, and fifth graders who could not fit into the regular school program, but were recommended for the program by their teachers.

The Matawan Regional Board of Education made an effort to gradually absorb the costs of local funding for continuation of successful project activities. The special education program was transferred to local funding, as was the continuation of all carry-over activities with the exception of the swimming program. The Board of Education was asked to assume, for 1971-72, the costs of continuation of the swimming and perceptual programs, which amounted to the salaries of three teachers. The dropping of the Saturday COPE Program for 1971-72 was dictated by fiscal considerations and not by any dissatisfaction with the program.

Project COPE has attained recognition in New Jersey physical education circles and has attained some national recognition as witnessesd by publications of project monographs and requests for information from other states. Those seeking further information may contact the author at the Broad Street School in Matawan, or phone him at 201-566-9542.

We feel we still have a long way to go in Matawan, but we also feel that we have made a good start toward the establishment of a physical education program that will turn students on, not off. We feel we are educating children, not just teaching them. We have taken a look at our curriculum and tried to strengthen what is good and change what is weak. In educational terms we are attempting to become more accountable through programs that are relevant for the students' long-term needs.

"All I can say now is that our discipline has improved tremendously, and I give much of the credit to our physical education program," says Irwin Middle School principal Charlie Gibson.

"This physical education program benefits every child—not just a select group with special problems or special abilities," comments Jack Norwood, Irwin Elementary School principal.

"The difference this physical education program has made in the children is unbelievable. They're more attentive, better behaved in the classroom," claims Mary Powell, elementary teacher with 15 years experience.

Such praise is not usually directed at elementary physical education programs, which are too often thought of as mere safety valves for the excess energy of children. But Irwin County, Georgia's Project Health and Optimum Physical Education is not the usual elementary program, and testimonials to its success are many and enthusiastic. One of the most impressive indications of the project's impact is a $100,000 grant from HEW, establishing the program as a national demonstration center and training site for elementary physical education for 1974-75. In addition, consultant service will be provided for school systems in the United States wishing to adopt the program.

Health and Optimum Physical Education began in 1970 as a project funded under Title III of the Elementary and Secondary Education Act and continues to operate in the two Ocilla, Georgia schools, involving approximately 1,000 children in grades K-6.

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Every Child a Winner

The project does not claim to be the end-all for thorny integration problems and such stubborn schoolhouse ills as inattentiveness, apathy, and disruption. But Health and Optimum Physical Education is making inroads into these and many other problems. The model program, whose first home was an apple crate filing cabinet in its originator's own home, is now being sought by educators with vision across the nation.

Martha Owens, project originator and director, recalls the project's beginning. "During the summer of 1968, I was teaching physical education in a Title I ESEA summer program in Irwin County. I was astounded at the children's lack of knowledge of physical education in general. They had no understanding of the basic concepts, the equipment, or how to use it. I really became concerned when I administered a youth fitness test (AAHPER) to the children and all the scores fell at or below the zero percentile."

Mrs. Owens was puzzled. "Our school system, like many others in the nation, was producing super-star athletes and winning teams, yet all the evidence pointed to large numbers of physically unfit boys and girls."

Looking into the situation, Mrs. Owens wondered whether many of the problems that beset the Irwin County Schools and other schools in neighboring districts—high dropout rates, academic underachievement, children with low self-concepts, apathy and disruption in the classroom—might somehow be related to a lack of planned elementary physical education programs. Could a really good elementary physical education program help solve some of these problems? Could such a program make children feel good about themselves and lead them to better academic and social adjustment?

Envisioning a "really good elementary physical education program" as one that would "make every child a winner" by encouraging the unskilled and the average, while providing a challenge for the physically gifted, Mrs. Owens persuaded the Irwin County Board of Education to attempt to set up such a program. Three main goals were listed initially: to improve measurably the fitness levels and motor skills of every child in the program, to enhance self-concept and academic adjustment, and to plan and implement school health services. The board's application for funds to "design and field test a model program in elementary physical education and health services for rural schools" won approval from Title III, ESEA.

Today, four years after its launching, Mrs. Owens says, "The project has mushroomed far beyond these first

room situations. Visitors to the project frequently express surprise over the absence of pushing, shoving, and crowded lines.

The "discovery learning" technique is employed in the teaching of most project lessons. For a complete understanding of how a concept is taught using this method, it may be well to follow the development of a particular movement skill—for example, catching—from kindergarten through grade six.

The kindergarten child might learn "the basic movements the body makes with the manipulative skill of catching" by first sitting down and rolling a large ball to himself within the confines of his spread-eagle legs. As the child becomes proficient in this simple task, smaller balls, varying distances, and more demanding problems become more appealing. "Can you throw your ball into a low level (ground to hip-high) ' catch it?" "Can you throw your ba. nto a high level and catch it?" "Show me how you can throw your ball into a high level and catch it on a low level."

Later, the more complex feat of catching a ball thrown by another person is developed. Then the child learns to catch while moving. "Can you catch the ball while running toward Jim?" "Choose another direction and catch the ball thrown to you by Jim."

In grades four through six, catching may be used in creative dance lessons as fourth graders move to music and catch balls. Or it may become more challenging as sixth graders learn to catch a forward or lateral pass, or to make an interception in child designed games.

By applying the discovery learning technique in the teaching of movement concepts, project teachers enable each child to develop movement patterns and skills at his own pace, rather than imposing set standards which students must meet or fail. Children learn to listen closely, as they must decide on an answer to the tasks presented and respond accordingly. Each child's capacity for response is broadened, his sense of personal worth enhanced as he daily discovers that his answer is the correct one for his *personal* movement needs. Only when he has developed the necessary physical and emotional readiness through such repeated success experiences will he be introduced to more highly organized,

SYD BLACKMARR is dissemination specialist for the Health and Optimum Physical Education project located in Ocilla, Georgia 31774.

competitive activities. This kind of everyday success helps him to see himself as a winner—with valuable carryover effect into the classroom as well as other areas of school life.

It is easy to understand why such a program has won the support not only of classroom teachers, but of athletic coaches as well. For example, Barbara Wolfe, junior high girls basketball coach, comments, "My girls had a 12-0 record this year. They came to me from the elementary program with a good foundation in ball-handling skills. I now have an entire class on which to build a team, rather than relying on a few who happen to be athletically gifted." And Irwin varsity tennis coach Hank Wehner comments in regard to tennis, "I'm confident that the grounding my students received in striking skills in their elementary years is greatly responsible for their successful year."

Of course, the program itself is the heart of Health and Optimum Physical Education, but the unusual apparatus and equipment developed by the staff are important elements. All the equipment is economical and practical, with costs ranging from nothing at all to $152 per unit. "One of the primary reasons for the success of the project is the involvement of the community in the planning and building of our equipment," comments Mrs. Owens.

Children brought scores of old tires donated by parents and neighbors for tire climbs, tire walks, balance beam supports, standards, and hurdles. Local retired citizens built archery standards; civic clubs made bean bags and yarn balls. High school art classes made target baskets. Many materials were purchased from army surplus outlets; others were donated by local firms.

The larger apparatus was constructed with the help of Irwin-Ben Hill Vocational Technical School. Volunteers from the Young Farmers Organization built a covered play area on the elementary campus.

The Irwin County Health Department has worked closely with the project, giving necessary treatment to children identified by the project health staff as having certain health needs and by making referrals to the proper agencies. Physical examinations are now required four times during a child's school career, and project-designed cumulative health records are kept on each child.

To help other schools implement the health and optimum Physical Education program, the staff has developed several products. A guide, *Every Child a Winner: A Practical Approach to Movement Education*, is being published to aid classroom teachers as well as physical educators in applying the project philosophy, teaching methods, and movement concepts to their particular needs. A booklet, *Every Child a Winner with Improvised Physical Education Equipment*, contains detailed plans and cost estimates for economical site-tested equipment. In addition, workshops are conducted at the project schools and throughout the nation for those wishing to adopt the program. Participants include physical educators, classroom teachers, college students, and administrators.

All the data show that Health and Optimum Physical Education has succeeded in raising the fitness levels and improving the motor skills of project children. County records indicate an improvement in attendance in grades one through six since the project's inception. Teachers and principals report improved behavioral climate. But perhaps the real portent of the program is best understood in the light of what is happening to attitudes toward elementary physical education.

In Irwin County alone, notes excusing children from physical education are fewer and fewer. The mother of one fifth grade boy reports, "Jakie begs me not to send an excuse, even when he's had an asthma attack." And now the board of education, for the first time in its history, employs two full-time elementary physical education teachers and two aides.

In the State of Georgia, at least 20 school systems are implementing elementary physical education programs after sending staff members to train at the project site. Attitudes of physical educators reflect renewed vigor after such training. Jay Gassman from Atwater Elementary in Thomaston says, "I can honestly say I was becoming depressed and frustrated with the way physical education was being handled in many school systems, almost to the point of changing professions. But now, just by exposure to this project, I'm sure I'll never surrender."

Hundreds of requests for information and help from across the nation are answered by the project staff. Martha Owens sees these requests as an indication of a nationwide trend. "There is an increasing awareness by educators today of the important contribution movement education makes toward the development of the total child. The Health and Optimum Physical Education design, though not perfect, answers the need for programs that are movement oriented. This program is practical, economical, and proven effective, but its true significance lies in its goal to help every child become a winner. In Project Health and Optimum Physical Education, this means each child doing his or her best." □

Effects of Perceptual-Motor Programs on Children

Jerry R. Thomas, Ed.D., Director, Motor Development Laboratory, Movement Sciences Program, Florida State University, Tallahassee, Florida

Introduction

It is extremely difficult to begin a discussion of P-M programs without first delimiting the word P-M to some extent. Seefeldt (1974) offers a comprehensive definition of the word P-M which includes the four processes of:

(1) discrimination and selection of a stimulus,
(2) integration of the stimulus with past experiences,
(3) purposeful movement in reply to a stimulus, and
(4) monitoring of the response (p. 266).

You may observe that this definition could easily include several of the theories of motor learning as well. However, most P-M programs are associated with academic performance outcomes and this unique aspect has tended to set P-M programs apart from the traditional physical education experience.

The purpose of this paper is to review the research in the perceptual-motor area (within the previously mentioned unique connotation) with the ultimate aim being to make some suggestions to the practitioner concerning the types of P-M programs that are likely to be successful in attaining certain specific objectives with specific types of children.

Cratty (1972) and Seefeldt (1974) present a very useful and informative historical summary of perceptual-motor theories underlying special training programs which have been in use for several years throughout the world. Cratty (1972) summarizes these theories into three categories. The first category is called "Theories Emphasizing Intellectual Abilities" (p. 42) and places the emphasis upon the intellectual involvement of the child as he functions motorically. Theorists falling in this group include Cratty and Martin (1969), Frostig (1970), Humphrey and Sullivan (1970), Kiphard and Huppertz (1968), and Mosston (1966).

In recent years the direction of Frostig's work has moved toward that of Cratty and Humphrey. These three authors appear to be in agreement that in order to obtain significant academic performance benefits from movement experiences, the child must be involved in activities which directly relate to cognitive performance. Each of these authors offers numerous suggestions to the practitioner for games and strategies that are useful with certain types of children. These theorists believe that "motor is a medium" for increasing academic performance but only to the extent that specific academic objectives are developed for the selected movement experiences.

Cratty's (1972) second category is called "Perceptual-Motor Theories" (p. 52) and includes the theories and programs of Barsh (1965), Gelman and Kane (1964) and Kephart (1960). These three theorists emphasize the development of certain perceptual-motor bases which they feel underlie successful academic performance. Their tests are designed to identify the perceptual-motor bases and their programs to remediate the identified problems. The remediation of these perceptual-motor problems will then lead to increased academic performance. In general, the research fails to support these types of programs, although many of the studies have inappropriate designs which makes the interpretation of data difficult (Klesius 1972; Seefeldt 1974).

The third category of theorists mentioned by Cratty (1972) is "Neurological Organization" (p. 64) and includes the work and research by Delacato (1966). This theory suggests that unless human infants go through the normal stages of development which Delacato identifies, they will be ineffective in their use of sensory input, communications and motor activities. If Delacato's examination indicates the child has missed one of these stages, a program of remediation is begun based heavily on motor patterning (which involves manipulation of the appendages as well as certain other movement sequences). An extensive review of the research on this theory by Glass and Robbins (1967) suggests that there is little support for it. In fact, according to Cratty (1972, p. 69), "Seven major medical and health organizations[1] have stated that patterning was 'without merit' and chided its supporters for claiming cures without documentation."

Correlational Research

The theories mentioned previously have basically been developed by clinical psychologists who have observed the frequency with which motor dysfunction is paired with learning difficulties. According to Seefeldt (1974, p. 276), this "has led to the hypothesis that a strong relationship exists between motor and cognitive function." Thus, many studies seek to establish the relationship between these domains and try to use tests in the motor domain as predictors of performance in the cognitive domains.

The types of variables used to assess P-M function vary across a broad spectrum. If these types were placed on a continuum, the spectrum would range from gross motor skills such as hopping or walking around obstacles to fine motor skills such as sorting and matching shapes. Seefeldt (1974) has classified these variables into four general categories that he calls symptoms of perceptual-motor dysfunction which are associated with learning disabilities. These categories include balance and postural control, temporal-spatial relationships, coordination of body parts, and body image. In general, coordination and balance items have tended to correlate more highly with academic performance than have gross motor skills (Chissom 1971; Ismail & Gruber 1967). However, this relationship appears to be a developmental one. Chissom (1971) and Thomas and Chissom (1972) have reported relationships between P-M variables involving fine eye-hand coordination and academic performance measures to be highest for kindergarten children but decreasing as age increases until by grade three, relationships are no longer significant.

Speech given at AAHPER Convention, Atlantic City, 1975.

[1] American Academy for Cerebral Palsy, American Academy of Physical Medicine, American Congress of Rehabilitation Medicine, Canadian Association for Children with Learning Disabilities, Canadian Association for Retarded Children, Canadian Rehabilitation Council for the Disabled, National Association for Retarded Children.

The type of child on which P-M assessments are made is vital to interpreting the results of correlational research. For instance, "children with compensatory problems" is a broadly used term and might include learning disabled children, mentally retarded children, underachievers, physically handicapped children and sometimes even socioeconomically disadvantaged children.

Several studies have compared normally functioning children with children in compensatory education programs using a variety of measures and circumstances. Lietz (1972) reported that disadvantaged subjects performed at a lower level on the Purdue Perceptual Motor Survey than advantaged children. However, within the disadvantaged group there were no sex or race differences in performance. Chissom and Thomas (1973) and Hammill, Goodman and Wiederhalt (1972) reported that P-M tests did not appear to be good predictors of academic performance for kindergarten and first grade disadvantaged subjects. In a later study, Thomas, Chissom and Booker (1974) reported that performance on both P-M and academic variables was consistently higher for disadvantaged subjects classified as "normal" performing than for learning disabled disadvantaged children. However, the correlations between the P-M and academic measures were consistently higher for the learning disabled children, supporting the concept of the global nature of learning disabilities. Studies using mentally retarded children as subjects have consistently found that they perform significantly below normal children on most perceptual-motor tasks. Factor analytic studies of perceptual-motor skills for mentally retarded children have generally used similar measures to those used for normal children and have reported similar factor structures. However, there have been slight tendencies toward fewer factors and heavier loadings on academic factors by perceptual-motor measures, again suggesting the global effects of compensatory problems (Cratty & Martin 1970; Maloney, Ball and Edgar 1970; Neeman 1971).

Experimental Research

Most of the theories discussed previously as well as the findings which indicated significant relationships between perceptual-motor and academic performance have led to the development of prescribed P-M programs which attempt to increase academic performance. These studies are generally in agreement in reporting significant changes in perceptual-motor skills but few changes in academic function for normal kindergartners and first graders. The programs have generally been criticized because of short training periods, poor measurement, inadequate controls, and lack of a long-term follow-up. A study by Thomas et al. (1975) does *not* have most of these problems because (1) the training period is reasonably long and daily, (2) the dependent variables are strong in terms of reliability and scale of measurement, (3) the training program identifies specific perceptual-motor dysfunctions related to academic performance and seeks to alter these variables, and (4) there is both an immediate and long-term follow-up. Yet results from this study are basically equivocal as in previous studies lacking these controls. While this is a rather limited amount of data from which to generalize, it might be suggested that perceptual-motor training programs lack effectiveness with normal children even when the subjects are in kindergarten where the correlational data suggests that the strongest degree of relationship exists.

Barlow (1971), in summarizing 12 studies of perceptual-motor programs for children with learning disabilities, failed to find evidence which supported academic benefit for these programs. Glass and Robbins (1967) reported similar findings for a variety of studies dealing with Delacato's "neurological organization" program, and Robinson (1971) found similar results for the Frostig (prior to 1970), Kephart and Winter Haven programs.

In summary, a series of statements by Seefeldt (1974) seems particularly appropriate:

> Transfer from one situation to another is directly related to the extent that the elements in the two situations are identical in nature. Thus, the notion that increased proficiency in motor skills will enhance academic achievement is tenable only to the degree that (a) the motor elements of the two situations are identical, (b) the motor skills are part of a developmental sequence that is prerequisite to the academic task, or (c) the process of learning the motor skills includes the concomitant learning of other skills that enter into the academic situation. Programs that seek transfer of learning beyond the conditions just outlined are destined to fail. (p. 282).

Other important variables to consider in experiments involving perceptual-motor training include the length and intensity of the training program, the individualized nature of the program, and an "incubation" effect. Many experimental programs attempt to remediate deficiencies in compensatory children that have been created by several years of neglect. It is foolish to think that a three-month, one-half hour per day treatment can remediate a problem that has been developing over a four- or five-year period. If basic skill deficiencies are to be remediated, they must be diagnosed earlier and/or the treatment program must be more intensive and extended for longer time periods.

Researchers must also begin to evaluate perceptual-motor programs that are individual in nature. All developmental difficulties do not require the same treatments equally spaced over the same time interval. While individualized programs create design and analysis problems for experimental research, they offer the only reasonable solution to the type difficulties discussed in this paper. In addition to individualizing a child's program of treatments, it is essential that once the child's difficulties are "remediated" that a periodic check be made to prevent regression and to cycle the child back into the treatment program if regression occurs.

One additional aspect in the evaluation of perceptual-motor programs is what MacCoby and Bee (1965) call an "incubation" effect. Applied to perceptual-motor training, this term suggests that increases in perceptual-motor skills may require some period of time to translate into increased academic performance. This hypothesis was evaluated in the previously cited study by Thomas et al. (1975) where a perceptual-motor training program administered in kindergarten was evaluated at the end of the treatment program and again in the first grade. Results indicated that while perceptual-motor skills trained for were significantly changed at the end of kindergarten, neither immediate nor long-term follow-up evaluations of academic performance showed significant changes.

Implication For The Practitioner

What implications does all the

previously cited research findings and problems have for an elementary physical education teacher? I believe these findings and some common concepts about the purposes of elementary physical education clearly dictate the appropriate action patterns.

First, if we can agree that the two major functions of the elementary physical education program are contributing to (1) the physical fitness level (defined here as cardiorespiratory endurance, strength and muscular endurance) and to (2) motor skill acquisition in children, then perceptual-motor programs as defined in this paper play a very small part in elementary physical education. To the extent that perceptual-motor activities are also those activities which contribute to the major objectives of elementary physical education, they should be included in the program. However, our main concern with these activities should be the quality of the movement pattern, not the use of the movement pattern to play a learning game. This suggestion is based on the previously established notion that for gross motor skills to affect academic performance, the skill must be used to attain an academic performance objective, i.e., running around a letter outlined on the ground. To justify inclusion in an elementary physical education program, a teacher must emphasize the contribution that the running makes to cardiovascular development and development of correct running patterns as well as the academic objective of correctly outlining the letter. Most programs using these types of motor performance activities that I have observed emphasize the academic objective with little or no concern for the motor pattern. In certain circumstances, the above process may not be bad, but it certainly has limited value as an objective for elementary physical education.

The preceding statements do not necessarily imply that the elementary physical educator has no function relative to perceptual-motor programs; just that currently used perceptual-motor programs have limited value as a replacement for elementary physical education. The elementary physical educator may be the most logical choice in the elementary school to implement and evaluate a perceptual-motor program apart from physical education.

Based on previously presented concepts, the elementary physical educator should recommend that perceptual-motor programs observe several stipulations. First, those children for whom some benefit is possible should be selected for the training program. At best, programs have values for only young (preschool and first grade), normal children and even then, the benefits are minimal. Almost certainly, perceptual-motor programs offer little benefit in academic performance for normal children after [illegible]. Compensatory children seem [illegible]ly to benefit from perceptual-motor training while underachievers, the disadvantaged and mentally retarded and those with learning disabilities seem least likely to benefit.

A second factor of importance is the qualities of the specific perceptual-motor program. Only programs which seek to remediate perceptual-motor dysfunctions underlying academic dysfunction and programs that use movement to meet specific academic objectives offer hope for success, with the latter probably being preferred. Practitioners must also remember that the length and intensity of the program are important factors. Easy and instant panaceas do not exist. If a decision is made to use perceptual-motor training, a long-term intense program will be necessary to alter academic performance significantly. In addition, the program must be individualized for each child with provisions for periodic checking on remediated problems. This type of program requires a large commitment of money, time and personnel from the elementary school and this fact should be clearly recognized by all involved. It is important that long-term follow-ups be made after termination of the program so that some time is allowed for the possible "incubation" effect previously discussed.

Some perceptual-motor tests also offer useful screening devices for school readiness and are good predictors of concurrent performance. However, their usefulness in predicting first grade success from kindergarten performance is no greater than other readiness measures used for this purpose.

A final point involves other effects of perceptual-motor training. Cratty (1972) points out that since several of the programs do contribute to the development of motor skills, children have benefited in this manner even though increased academic performance may have been the objective of the program. Other factors recently alluded to by several authors (Fleming 1972; Seefeldt 1974) include self-concept and attention span. If perceptual-motor training positively influences self-concept because of the success-oriented nature of many of the programs, this may result in increased academic performance. However, this presupposes that self-concept is a general factor, not a specific situation and that it positively influences classroom performance. Data to evaluate this supposition are not available at this time. The other variable alluded to is attention span. If a child can attend to movement activities for a longer period of time, this increased attention span may transfer to classroom learning. However, both of these variables are probably related to a basic principle earlier attributed to Seefeldt (1974), that for transfer to occur the elements of the two situations must be extremely similar. Thus, neither self-concept nor attention span may be transferable variables from perceptual-motor to academic situations.

As a summary statement, I would again like to emphasize that perceptual motor programs planned to meet specific academic objectives are probably useful for certain children provided these programs begin early and are individual and intensive in nature. However, perceptual-motor activities have limited value as a replacement for part of the regular elementary physical education program unless these activities are structured to meet the two major objectives (physical fitness and skill development) of that program.

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Developmental Concerns

THE YOUNG CHILD

LOLAS E. HALVERSON

In the decade of the '70s, everyone is looking at the preschool child. He is suddenly big business, important news, a television market, a phenomenon to be researched. Ages two to five have assumed unprecedented significance; once considered a waiting period until "real learning" began, these years are now deemed crucial for future success.

Suddenly, we educators find ourselves confronted with an unprecedented opportunity but, at the same time, a sobering responsibility. We are clearly unprepared to meet the needs of the preschool child in terms of our preservice and in-service preparation of teachers, our facilities, our development of programs based on research. We find ourselves pressed by a crisis and, typically, a crisis must be met by action—so we have rushed to act.

There is danger that this rush, the push to do, may overshadow the need to question the why, the how, and the results of such action; that innovation and change will become the criteria for adoption of a preschool program, with little questioning of the real relevance of the changes. There is danger that the small child's life will become overly-structured and overly-stimulated, with large doses of overpressure, just as has that of the elementary child. There is danger that our interest and concern for him could turn to a tragic destruction of childhood, rather than a fulfillment of the promise for which we hope.

As we contemplate both the problems and the promise, let us consider the contribution of physical educators to understanding the world of the small child, especially his world of movement. What scholarship have we brought to this area of concern? Sadly, as we look at our literature between 1940 and 1970, the answer must be that we have not contributed much. We know far too little about what small children can and should accomplish in movement. We know very little, really, about how movement does develop. We have failed to act upon, or even recognize, the implied "recommendations for further study" to be found in the early motor development research by Gesell, Shirley, Wellman, Bayley, Gutteridge, and other psychologists in the 1930s.

In practice we, along with other educators and psychologists, elevated what should have been tentative conclusions about some children in a certain situation to sweeping generalizations about all children in all situations. These early studies—all classics in their own right—suffered from the same shortcomings that any pioneering work does in any field. They were beginnings and were not intended as final answers. Most of them had small samples and did not claim to reflect the total population.

Yet, without reservation, recent child and motor development books are still emphasizing motor development scales and movement descriptions from this work of the 1930s. Now *these* texts are being quoted uncritically, and we have been content to accept the results of this "secondary source syndrome." But surely, it is time that we read the original work again. Surely there are new insights to add; there is more to know.

And what was our role in the development of physical education programs for the small child? Here, too, we were guilty of neglect. Now, suddenly, attention has been focused by non-physical educators on the possible importance of movement in the cognitive development of the young child. Perceptual-motor, visual-motor, sensori-motor programs are being developed, sometimes in consultation with physical educators, often not. But, regardless of whether they were a part of the planning, more and more physical educators have become involved in implementing these programs. We have joined the rush to action.

However, for the most part, in our rush, we have not developed broad movement experience programs for the young child. In general, the rush has been in one direction—to develop programs designed only to hasten or improve cognitive development or to correct learning disabilities through stereotyped movement training, concepts quite different from the goals of most early childhood educators and, I hope, different from the goals of most physical educators.

As more of us recognize this and begin the work of developing more broadly based movement programs for young children, it is essential that we avoid the problems which I see in so many of the perceptual, visual, and sensori-

Lolas E. Halverson is professor, Department of Physical Education for Women, University of Wisconsin, Madison, Wisconsin 53706. She made a presentation at the conference on the significance of motor development for the young child; this article is based on her speech at the Elementary Physical Education Area meeting at the 1970

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ary source syndrome'" in the haphazard manner in which motor activities are chosen for the programs. I also see signs of "instant expertise" where physical educators who have never worked with young children or even noticed them before are suddenly "specialists," implementing these programs. I am concerned at the unquestioning adoption by educators, physical educators, and psychologists of motor items said to assess the level of children's motor development and at the uncritical manner in which the items are administered and interpreted.

Let me give a hypothetical example. Imagine a four year old being brought into a strange environment, possibly even a big gymnasium for the first time, with an adult whom he has never seen. Suppose this adult asks him to stand in a small circle, then hop five times on his right foot, staying in the circle as he does it. Suppose, then, he is asked to hop on his left foot five times while staying in the circle. Suppose, further, that the child is given only one or two chances to try the task and is then scored as "passed" or "failed." It is obvious that the stage is set for ensured failure or, at best, meaningless information.

You may at once conclude that I have developed an incredibly bad evaluative situation for this hypothetical example. I sincerely hope that this is not typical of what does happen in the motor testing of small children, but let us examine the built-in failures to illustrate some of my concerns.

The problem of a strange environment with a strange adult needs little expansion. It is obvious that for many or most small children, the performance recorded at such a session is likely to be less than their potential or, at least, different from it. The adult who does not know children, in particular, the children with whom he is working, will end up with some strange data.

A second problem is that of communication. Many words have little meaning for a small child, especially when under the stress of an unfamiliar environment. Yet to ask a child to perform a very specific task using words as the only avenue of communication is a fault common to many adults. Showing the child what is to be done may be a more helpful method, but neither will it work for all children. For instance, even after an adult has demonstrated a leap, many young children remain confused. Yet the same children may be able to perform a good leap when asked to run, clear an obstacle about six inches high, and continue running. It is essential that the investigator know enough about children and about movement to set a situation which shows what the child can actually do.

A third problem is the validity of the measurement tool. The investigator must know the purpose of the task set for the child and must further determine whether the task clearly achieves this purpose. For example, in the above hopping test, what is the objective? Is it to determine the child's ability to distinguish between the right and the left foot? Is it to determine whether the child can count to five, or is it simply to see if the child can hop several times consecutively? Is it to determine whether he can control his body so that he can stay within a small circle while hopping, or to discover whether the child can or cannot hop on each foot?

Each of these purposes would require a different approach to the development of the hopping task. Each should require a carefully conceived basis for the evaluation of the child's performance. For example, if the goal is to discover whether the child can identify his right or left foot, it is essential that the child's ability to hop already be established so his concentration can be on the problem of right and left—not on trying to cope with the movement task. Similarly, to ask him to hop five times before he can readily count to five, or can hop with ease, or both, simply confounds the information obtained. We must know whether the child is failing the task because of his concentration on counting, or because he cannot hop, or both, if we are to interpret the results clearly. Only if we are specific in what we wish to test can we determine accurately what the child can actually accomplish in motor performance.

A fourth problem is evaluation on the basis of one or two trials on one day. This is a critical problem at any age level, but it is especially critical in the assessment of the performance of a young child. We know that the small child is highly individualistic and variable in response to tasks set for him. We know there can be marked variation in children's responses to the same task from one trial to another, from one observation period to another, even from one mood to another. This, then, must be taken into account in the assessment and interpretation of the results of children's performance. We must allow for several trials during more than one observation period.

Seen as a whole, our hypothetical situation suggests one final comment. While it is important for one to know if and when a child can accomplish a movement task and to evaluate this carefully, it is perhaps more important for us as teachers to know what the characteristics of his movements are as he accomplishes this task. Such information is essential for designing a move-

ment progression to fit individual needs. What is achieved—that is, the "score"—tells us only a small part of the story and is limited as a diagnostic tool.

For example, a statement that most 40-month-old children can jump from 10 to 35 inches tells little about the movement of a child who can jump 35 inches as opposed to one who can jump only 10. All we know is that for some reason one child jumped farther than another. We might speculate that he may have used more body parts in the jump, may have used force, may have dared to lean a little farther forward. However, it is equally possible that the child who jumped farther might have used an immature, leaping jump, while the other child may have used the more difficult, more mature, two-foot take-off. We can only speculate; we do not know. It is obvious that more than a numerical score is essential if we are to know what the performance really was.

It should also be obvious that the pass-fail scoring of our hypothetical "hopping test" gives little useful information because of the multiple demands of the task. Two children "failing" might have done so for very different reasons and would, therefore, need very different teaching progressions to help them master the task.

Thus, an "easy" task of hopping five times on the right foot while staying in a circle should now be recognized as a task with multiple demands, a formidable task for a small child and a complex evaluative challenge for an adult. It is essential, then, for us to know what response we are trying to evaluate; to know how to elicit this response from the child; to know children well enough to know when their solution represents what they can do; and, lastly, to evaluate their performance in a way that will be useful in planning movement experiences for them.

These and other challenges in the complex area of preschool motor development and learning will take a great deal of study on the part of both scholars and teachers—thus, of course, action cannot wait. But, if we are willing to use carefully what we already know, to plan and carry out all movement programs with a concern for observing, assessing, studying, and questioning what does occur—research and action in preschool movement education can become mutually inclusive; not mutually exclusive.

Meanwhile, as we continue the current rush to develop preschool movement programs, I hope we will pause to consider the following things:

1. Programs should be designed to help the child learn at *his* stage of development in an environment designed for *him*.
2. Preschool and day care centers must include space, freedom, and equipment for children's movement. This will require much more than is currently in many of the centers being developed today.
3. The leaders of preschool programs must have a better background in movement than is currently true, and better help in using this information. Programs for small children must include more opportunity for exploring, experimenting, and practicing all types of movement skills under a variety of situations. It must not be restricted to a rhythms period now and then, or to a structured game occasionally.
4. Parents must be involved with educators in the process of enriching the child's environment for total development.
5. While preparation for future academic demands may well be the driving force for much of the current interest in the small child, it is essential that we continue to evaluate the action we do take as it affects the *whole* child developing, and that we recognize that even preschool human beings do differ in their needs, interests, and responses.
6. If there is to be special work on "developmental deficits," it should be *in addition* to, not in place of, regular well-rounded and stimulating movement experiences.
7. We must be willing to try to develop ways of evaluating the impact of all programs and to change if we are not making headway. To do this, we must be able to define "progress" clearly and specifically.

Above all, we must remember that in our haste, there is serious danger that we will not stop to really look at the small child—or, if we do look, we may fail to see him. There is danger that we will fail to understand that he needs to grow and learn as a whole being, not a self split into perceptual, conceptual, motor, affectual, and social pieces; that to develop he needs time, space, love, and companionship; that to develop he needs to share experiences with other children, and also with concerned and interested adults.

We must be wise enough to share what we know and what we discover with each other. We must also work with persons from many disciplines to make real progress. Indeed, it is essential that physical educators, together with early childhood educators, work together to meet the current rush to action. Together we will have to assess the needs, to study the ways, to evaluate the results. Together we must do more than look at the preschool child—we must see him, and understand him.

Photographs by Michael D. Sullivan

Perceptual-Motor Development in Children: Information and Processing Capacities of the Young Child

Harriet Williams, Department of Physical Education, University of Toledo, Toledo, Ohio

Over a century ago Seconoff, a Russian physiologist, suggested that all human behavior could be thought of as a product of three very close interrelated processes: 1) sensory or afferent input, 2) a cortical or cerebral process, and 3) efferent or motor output. He further hypothesized that of these three the motor followed and was based on the outcome or effectiveness of the first two processes. If for the sake of simplicity and clarity we were to lump the first two processes together and call them perception and label the last as movement or motor behavior, we find that what Seconoff was suggesting over 100 years ago was that all of man's behavior could be thought of essentially as a series of perceptual events followed by a series of motor or behavioral acts.

This particular formulation points out very closely that the processing of specific sensory perceptual information is both prerequisite to and necessary for adequate execution of adaptive motor reactions. This would indicate that, if the processing of afferent information, upon which a motor behavior is based, is both rapid and precise then the probability of that behavior being skillful or adaptive is much greater than if the processing of such afferent information is inadequate or ineffective. In other words, most of our motor acts are really a product of the precision of the afferent processes which precede them. There is indeed much evidence today to support the notion that sensory perceptual processes are indeed irrevocably linked to the production of adaptive overt behavior; that indeed afferent input is an intricate part of the chain of events leading to effective adaptation of the environment. It is because there is this very strong and identifiable link between overt behavior and sensory perception, of afferent processes that the term perceptual-motor has been used so widely. The use of the term is an attempt to draw attention continually to the fact that sensory perception processes are vital in all human behavior. Thus, it's strange that we have just begun to recognize that one of the things that most characterizes the perceptual-motor development of the young child is a steady and continuous change in the afferent functions of the central nervous system. Changes which are necessary are prerequisite if the child is to develop greater control and/or direction of his overt motor behavior. From an information processing point of view, these changes in the central nervous system are reflected primarily in the improved capacity of the child to handle increasingly large quantities of more and more complex environmental input. Thus, as perceptual-motor development proceeds, the child develops increased capacity for handling more complex quantities of sensory input and the thing that we observe behaviorally in the child is an improved capacity to execute more skillful, complex, and adaptive motor behaviors. The whole concept of PMD is one that deals with changes in the afferent processes of the young child. Changes are reflected in more effective, adaptive and modifiable motor behavior in the young child. These changes in afferent processes are revealed in three major changes that occur during the perceptual-motor development of the child.

Afferent Reorganization

Afferent reorganization is seen first in the shift from the dominance or preeminence of the use of input from the touch or movement receptors to the predominant use of input from the distance receptors, mainly the eyes for the control of motor behavior. In other words, perceptual-motor development in the normal child is characterized by a shift in reliance from tactile-kinesthetic cues to a primary reliance on visual cues for the control of his behavior. This shift to dominance by the visual system represents the shift from input sensory systems with relatively elementary or crude information processing capacities to the use of input from sensory systems with more highly refined information processing capacities. The visual system is believed to be most advanced of all the sensory systems with regard to the speed and precision with which it can supply information to the organism from his environment. This trend toward a dominant control of motor behavior by visual cues means of course that more refined control or modification of overt motor behavior is possible because the child using visual cues is able to make more rapid and precise assessments of the environment to which he must adapt.

Second, this change in afferent reorganization seems to take the form of improved intersensory functioning or increased intersensory communication. This means that as the child grows and develops there is a greater means of communication gathered from the sensory systems of the body. Behaviorally, the child is able to use more and more, a variety of sources of sensory input to aid him in the control of his motor behavior. As he grows and develops he can use sights, sounds, etc. in helping him modify his behavior to the environment. One of the most important characteristics of perceptual motor development is this trend toward multisensory, rather than unimodal, functioning on the part of the child. Important, because this trend toward multi-motor sensory functioning is believed to be a reflection of high order brain processes that allow the child to compare, match, and evaluate sensory input from different sensory systems before motor behavior is decided on. The premise that this process of multisensory functioning is not present or fixed at birth is supported by many descriptions of early sensory-motor stages of the child's development. These periods of development are universally described as stages of little intersensory communication. There is some, but it's not highly refined. Rather there are periods during which the individual sensory systems appear to function independently of one another. The pattern of perceptual-motor development of the normal child involves a definite and important trend away from reliance on input from single separate sensory modalities and toward the use of multi-sensory input in modifying motor behavior.

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Third, with the elaboration of these intermodal relationships there is, at the same time, an increased differentiation power within each of the individual sensory systems themselves. This improved intrasensory differentiation is reflected in the increasing capacity of the child to make more refined discrimination about his environment. Improved intrasensory discrimination may be reflected in the ability of the child to make more refined discrimination about his environment. Improved intrasensory discrimination may be reflected in the ability of the child to make increasingly clear cut and precise visual perceptual judgements about objects or events which make up his surroundings — visual environment. As a result of improved intrasensory discrimination, the child is able to see more detail in visual stimuli presented to him. He is able to see more complex interrelationships and spatial arrangements in various stimulus elements that make up the environment. As a consequence, we find that the child is increasingly able to exert a greater afferent control over his behavior and thus be more effective in adapting to environmental conditions that face him.

Answers to some questions in this area follow.

Slowly and Normal Developing Children

Much of what I've said suggests, for example, that the child that may be labeled as a child with learning difficulties or a child who is perceptually deficient is one who is likely to exhibit patterns of sensory-perceptual organization that are different from those of the child developing "normally." The slowly developing child is likely to have less developed intrasensory discrimination capacities and thus likely to exhibit lower levels of competency when performing visual, auditory, tactile, etc., ie., perception skills. A comparison of intrasensory discrimination capacities of slowly developing and normal developing children would support this kind of assumption. I compared perceptual characteristics of slowly developing children with those visual characteristics of normal children and found that these differences were statistically different. The normal child shows greater advancement in all individual perceptual skills than the slower developing child. Thus, if we are willing to accept scores on this test as an observable indication of the level of intrasensory discrimination of the child, then we must recognize that the normal developing child has advanced to a higher level of intrasensory discrimination than the slower child. This is revealed in his superior visual-perceptual capacity for competencies.

What about behavioral indicators of intersensory functioning? The behavior we refer to as body awareness, body perception skills may in fact be exemplary of intersensory functioning behavior, i.e., right-left discrimination. In order for the child to respond correctly to a request of "show me your right arm" the child must be able to process through the auditory system, but also compare information with information stored in, or available to him through the tactile-kinesthetic sensory systems. This comparing of information is a necessary prerequisite if the child is to identify his right arm. Right-left confusion would arise when there is some inability to compare or interrelate these two sources of sensory information. Differences in the degree of development of intersensory communication capacities would show up then in differences in right-left discriminations. Predictably then we would expect the slow developer to evidence more difficulty in performing such tasks than the normal child. I found that normal developers tend to be more advanced with respect to body perception or body awareness skills.

Based on three different measures of body awareness it was observed that the normal child possesses a keener sense of awareness of body and dimension and relative positions in space. These differences are reflections of differences in levels of development on intersensory communication in the two kinds of children. The degree of intersensory development is also seen in motor performance skills as in a 20-yard dash and the run-and-under. In the 20-yard dash he is asked in a well defined way to run from one point to another. In the run-and-under, the child is started at a specified point in space. He runs to a second point in space, this time an obstacle, goes under the obstacle without touching it, continues to a line 5 feet beyond, touches the line and returns to start by reversing action and goes under the starting line. If we analyze these two tasks and separate differences in them, we find that in both of them the child is asked to cover the same amount of space. However, the difference is the visually spatial framework in which these distances are covered. In the 20-yard dash, the visual requirements are minimal. Thus, the child can concentrate on attaining his maximum speed. This requires little refined intersensory communication in the sense that it is not necessary for the child to continuously translate visual cues into precise motor behavior or judge, compare and evaluate the incoming visual input against the semi-modal sensory feedback which is continually being derived from the ongoing behavior.

In the run-and-under, however, in addition to the speed requirements, the visual-spatial aspects of the task are more demanding and require that the individual pay continual attention to his visual-spatial environment and thus direct his body according to the input from that visual environment. To perform this successfully the child must maneuver his body to what he sees. He, therefore, must compare visual-spatial input with the semi-modal sensory feedback that is continually produced as the child moves through space. This places greater stress on the intersensory communication mechanism of the child and tends to make the task more difficult to perform. With the slower child's lack of development in intersensory functioning we would expect more difficulty in the run-and-under task than the normal child. On the 20 yard run the slower child will exhibit similar patterns of intersensory functioning to the normal child. When compared on these bases the normal child showed superior performances in run-and-under but not on the 20-yard run.

Thus an important part of the perceptual-motor development of the child is an increased intersensory functioning. In her *Analysis of Perceptual-Motor Development in Children*, Jean Ayres finds that the developmental patterns of normal children are different from those of the slower child. The data from her studies suggest that these differences in developmental patterns are a function of afferent or sensory-perceptual development of the children. One of the characteristics of normal perceptual-motor development was multisensory awareness, a general pattern that prevailed in all of the perceptual-motor development of normal children. This pattern is best described as a general sensitivity on the part of the child to spatial relations. The spatial awareness pattern importantly was multi-modal in nature rather than being confined to any one sensory modality. Thus, from the Ayres data we see that the development

of the general spatial awareness is an important characteristic of the perceptual-motor development of the normal child.

In the case of the slowly developing child, the only developmental pattern related to spatial awareness was one that was predominately visual in nature, and so is almost completely confined to visual-perceptual elements of the spatial relation concept. This difference between the normal and slower child suggests that the slower child is dependent on visual input from the environment for his spatial awareness and for spatial orientation while the normal child is able to use sensory input from a variety of sources to orient himself spatially. The slower child is tied to his visual world while the normal child is not. Maybe due to the ability of the normal child to *use* a variety of sources in his environment that he is more at home in his space world than the slower child and tends to show less confusion in spatial concepts in his space world. This suggests that one of the important differences is that the slower child's world is predominately a uni-modal space world based largely on vision while the normal child enjoys the multi-modal space world. The most outstanding developmental pattern of the slow child is best described as a general motor coordination and motor planning pattern. This pattern is characterized by the inability of the child to plan and carry out in a skillful way simple motor acts. The impact on such a general motor coordination factor is seen when no such developmental pattern appeared in the characteristic of normal children. The patterns that characterize this generalized motor coordination for the slower child appeared only as single and unimportant factors in the total scheme of perceptual-motor development patterns for the normal child. Thus what is still undifferentiated motor coordination for the slower child has for the normal child developed into a series of well defined and smooth motor behavior responses.

The basis for the existence of differences in such developmental patterns is largely a reflection of the degree to which the motor responses of the child have come under the control of higher refined and interrelated afferent sensory perceptual processes. The presence of a general motor coordination developmental pattern for the slower child suggests that this child, unlike the normal child, is lagging behind in some aspects of his afferent or sensory perceptual development. Many of the other differences in development patterns characteristic of these two groups of children suggested the same kind of things inherent of developmental differences in the sensory-perceptual capacities of the child. What this implies is that perceptual motor development in children is characterized by changes in the processes involved in developing increasingly refined afferent or sensory-perceptual control of overt motor behavior. This suggests the difference of normal and slower children developed in terms of their perceptual-motor characteristics is largely a reflection of differences in the degree to which this refined afferent has been developed in the individual child. The challenge forces us to clearly outline in scientific fashion the basis of the elements involved in intrasensory discrimination and intersensory communication not just behaviorally but physiologically. When we have done this I'm sure that we will have met, faced and solved most of the issues involved in perceptual-motor development in children.

IMPLICATIONS FOR MOVEMENT EDUCATION EXPERIENCES DRAWN FROM PERCEPTUAL-MOTOR RESEARCH

HOPE M. SMITH

Dr. Smith is professor of physical education at Purdue University, Lafayette, Indiana. She is head of the specialized area of study in perceptual-motor behavior.

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practical implications from research. At the outset of the task, particularly in dealing with the broad class of studies that fall under the heading "perceptual-motor," one must group the research works to be examined into viable subcategories. The next consideration must deal with selecting, from each subcategory, those studies that best meet the criteria for research design and control. And, finally, when practical implications are drawn, one must communicate to his readers that these implications are purely speculative in nature and should be stringently evaluated in the teaching-learning environment through action research procedures.

For the purpose of this article I have chosen to subclassify perceptual-motor research into five divisions. These divisions are predicated in light of the similarity in focus of groups of studies. I list them here in random order with no attempt to place the divisions according to priority.

1. Sensory physiology and anatomy
2. Perceptual development and/or status without concern for motor performance
3. Motor learning with little concern for the perceptual aspects of the investigation
4. Perceptual training programs and devices related to increased efficiency in motor performance
5. Motor programs for perceptual training in relation to scholastic or academic achievement

Needless to say, with such an inclusive list, one finds it impossible to discuss all the available literature in each division for the purposes of a short article. Therefore, I have chosen those findings that, to me, seem most relevant for physical educators, and have collated the information according to the perceptual mode with which the selected findings deal.

VISION

Organic Development

Young children are farsighted. This is due to the foreshortening of the eyeball which does not reach its most spheroidal form until about the age of six or seven, depending on individual maturation rates.

Implications for teachers working with preschoolers or elementary school children are that in presenting young children with target tasks, e.g., throwing at a wall target, teachers should provide visual objects large enough to be seen clearly and when working with relatively small target objects the children probably get best visual input at a distance of no less than six feet from the object. Play objects (blocks, balls, bean bags, etc.) are probably better visualized if they are not extremely small. The speed of objects thrown or propelled toward the child should be minimal to allow for gradual focal convergence.

Visual discrimination, matching, and classifying

Three and four year olds tend to rely on the shape or form of objects for identification and classification rather than on the color of the objects. By age five color begins to play a more important role than form in this visual operation. By age six or seven both color and form are important in perceptual operations involved in classifying and

discriminating among and between objects. Color preference studies indicate that blue is the favorite color for both boys and girls with red and orange next in preference. Yellow seems to be the least favored color.

Implications for physical educators working with preschoolers are several. Head Start programs seem to suggest that a greater variety and complexity in the forms of play objects and equipment than now in use should be introduced to three and four year olds without undue concern over the color of these items. But those working with five year olds should capitalize on the opportunity for introducing children to a great variety of color in their playthings and surroundings. This seems to be a critical time for increasing motivation for motor performance through the use of color. During first, second, and third grades even greater varieties of shapes in objects and tints and shades of color may make the physical education class more exciting and educational than ever. If some object in the equipment supply does not seem very popular and it is yellow, paint it blue and note whether it gets increased attention from the children.

Figure-ground phenomenon

This visual operation seems to have nothing to do with visual acuity. It is the perception of a simple figure or object when that figure is embedded in a complex background. An example of this as it might occur in physical education activities is the situation caused by a baseball or softball getting visually "lost" against the complex background of a crowd as the ball rises from the bat. In such a situation even highly skilled players may be unable to field the ball effectively. The ability to differentiate, visually, the simple object from the complex ground develops slowly and seems to reach peak performance in the teens. At about 14 to 16 years of age both boys and girls reach their top proficiency levels at which time girls begin a very slight decrement in performance that lasts until age 20 or 21 and a leveling-off period exists after that. Boys tend to maintain the same level of performance reached by age 14 to 16 until age 20 or 21 at which time there is a slight decrement in performance prior to the leveling-off period. Not only are there differences in performance by age, with younger children exhibiting less ability than older children, but there is also a difference by sex, with girls being less proficient than boys at each age level. Those individuals who perform poorly for their age and sex on this visual task are usually said to be field-dependent and those who perform well are field-independent.

Implications for physical educators, whether they work with young children or teen-agers, seem to suggest that many individuals may exhibit poor motor performance in striking and catching activities because they are visually field-dependent and not because of motor problems per se. Teachers who encounter persistent motor response problems with some students in catching, striking, or target throwing skills (e.g., in tennis, badminton, softball) should probably test those students with a valid, reliable, embedded figures test to determine if field dependency in figure-ground visual perception is present. For individuals having this type of visual difficulty it may be effective to establish visual procedures that could be alternated with actual performance practices. Those who show little or no improvement in figure-ground performance after training procedures may find greater satisfaction and higher levels of motor performance in nonobject oriented activities such as swimming, dancing, or skating where the demands for figure-ground visual adaptations are minimal.

Depth perception and size constancy

These abilities are learned visual phenomena. They develop gradually as children mature. There seems to be overwhelming evidence that depth perception and size constancy are largely a function of the use of relative visual cues, texture gradients, and probabilities from past visual experience.

Implications for curricular experiences to be included in pre-school, elementary school, and even some students at the high school level are many. For young children, the environment should provide many and varied spatial and dimensional visual cues. These cues should not be left to chance, but consciously planned for by teachers. One example of such experiences might be setting up lanes formed by indian clubs with a target at the end of the lane and having the children roll or kick various size balls at the target. At the secondary school level, teachers should be aware that a student may have inadequate depth perception and be unable to make satisfactory motor responses because of this inadequacy. If other types of instruction fail to improve his responses it may be productive to give him some visual screening tests for depth perception or size constancy function. If the student performs poorly on such tests it may be necessary to include some visual training procedures along with his movement education.

Phi phenomenon (autokinetic movement)

This is a visual illusion that gives one the impression that a stationary object is in motion. It occurs during prolonged periods of constant visual focus on an object.

Implications for physical educators are that, when teaching activities requiring students to maintain continuous and prolonged focus on a stationary object or "spot" (such as balance beam exercises demand), the student should be encouraged to occasionally shift his visual focus by a few degrees right or left. It may be helpful to provide some focal point that is in constant slight motion. For beginners, a blinking light might be provided on standards at each end of the beam. Such a teaching aid may produce more efficient motor response in balance activities.

Retinal inhibition

Because of the bipolar character of the retinal end organs, these sensory bodies are capable of inhibiting or facilitating the progress of light stimuli over the optic nerve to the visual cortex. When inhibition occurs the individual literally does not "see" an object or event even though he may be capable of 20/20 vision.

Implications from the study of this phenomenon are that teachers should not rely only on auditory instructions when directing students' visual attention to cues for motor performance. If, for instance, the teacher should give verbal instructions to students to throw a ball at one of several adjacent wall targets, she should also give visual direction by walking up and touching the appropriate target. Even then there is no guarantee that all the students are attending to the same target.

AUDITION

Organic development

Auditory organs are developed *in utero* and there is evidence that human babies do experience some sound sensations prior to birth. Response to amplitudes of sound, therefore, occur long before parents and teachers have much to do with planned auditory input. The baby is soon exposed to a variety of frequencies as well as amplitudes of sound as soon as he is born. These experiences with sound continue throughout all of his early educational years and beyond. While there is little research in the audition field that could be considered directly relevant to physical education, we may draw from these studies some implications concerning the provision of effective teaching environments, curricular experiences, and "sound effects" related to improving motor performance. *Damping* results in the conversion of sound waves into heat. In some industrial studies it has been shown that drop-offs in production rates may be directly related to high noise, heat, and humidity levels of the working environment.

Implications for providing optimum teaching-learning environments for physical education, where high levels of sound amplitude obtain over long periods, seem to be that all indoor facilities should be provided with ceiling and wall acoustical materials. Also optimum temperature levels for activity should be maintained automatically because of the rise in temperature occasioned by production of body heat during activity and also the heat generated by the damping of sound waves.

Auditory figure-ground

This is much like visual figure-ground operation in that one is able to detect one specific tonal quality and frequency range that is embedded within a whole complexity of sound. For instance, some individuals who have experienced listening training over long periods can, when they wish, detect and attend only to the French horns in the complexity of simultaneously produced sounds of a symphony orchestra. Obviously, individuals vary in their ability to discriminate between relevant and irrelevant sound signals.

Implications for physical educators may be that auditory training should be incorporated early and continuously in movement education programs. Teachers should provide opportunities for children to attend to relevant auditory cues prior to, during, and at the termination of motor performance. Surfaces on walls, floors, targets, and objects should be of varying materials and densities so that a variety of distinctive sound amplitudes and frequencies may be associated with striking and throwing activities. Again, these experiences should be planned so that children begin, at an early age, to detect and use relevant auditory input for feedback on their own motor performance and as cues for imitiating motor responses to objects and events issuing from the performance of others.

Directionality of sound

According to recent findings, individuals tend to initiate movement toward the direction from which the sound cue emanates. For example, if a verbal cue is given that instructs the individual to move a body segment or segments to the left, but the verbal cue emanates from the right side of the individual, the initial motor response is to the right, followed by a reverse response to the left.

Implications of this finding may be extremely important at both the elementary level and at more advanced and complex levels of skill learning. When one is working on direction of motor responses with young children he should be sure that sound cues come from the direction in which the motor response is to be made. Children find it difficult enough to discriminate right from left without our confounding them even further. In advanced work, such as diving or gymnastic skills, if sound cues are being given for initiating motor responses, one should give the cue from the direction in which the response is to be made. The momentary hesitation caused by the sound cue issuing from the opposing direction may mean the difference between a successful or an unsuccessful half-twist, tour jete, or round-off.

Auditory rhythm perception

This involves the identification of a regulated series of sounds interspersed by regulated moments of silence in repeated patterns. It also involves tempo and accent (increased amplitude at regulated moments in the pattern). This is an extremely complex operation involving temporal perceptions through use of the auditory mode. In studies of children's temporal perceptions it was found that children begin to make temporal discriminations via the auditory mode prior to the visual mode and that there are transfer effects from auditory to visual modes, but not the reverse.

Implications for physical educators are that simple auditory rhythmic experiences should certainly be a part of any preschool or elementary school program. Motor responses to superimposed auditory rhythmic patterns should begin early and continue throughout the elementary school program. Such experiences may, in fact, lead to better visual estimations of a temporal nature later on, e.g., judging the speed of objects to be intercepted or avoided or the length of time estimated to get from one point to another in space.

TACTILE PERCEPTION

Organic development

The end organs of touch in the skin seem to follow the usual cephalocaudal directions of development. In young children the receptors in the head region and upper limbs precede development in the lower limbs. The mouth and tongue are rich in tactile end organs which probably accounts for the persistent use of the mouth and tongue for the exploration of objects during the first two years of life. The fingers and palms of the hands are more sensitive than the lower extremities. When development of this part of the sensorium is completed, the most sensitive areas of the body are the mouth and tongue, the fingers and palms of the hands, and the toes and soles of the feet. The hairier areas of the body are more sensitive than the less hairy areas, and the torso, both front and back, is less sensitive than other body segments because the tactical end organs are less numerous here than they are in other areas.

Implications derived from such information indicate that young children and children of elementary school age

should have many opportunities to explore the environment tactilely with all body segments. Activities involving the trunk area of the body such as log rolls, forward and backward rolls, and sliding head first and feet first on front and back should be integral parts of the movement education program.

Aquatic experiences should begin by age two and certainly no later than age four. The water is a perfect medium for allowing children to experience the tactile sense over the total body surface, the delicious freedom from gravitational force, the sensing of pressure on hands, arms, legs, and feet that tells one he is making himself move, and the use of the temperature receptors of the skin that signal whether a leg or an arm is in or out of the water.

Even though we physical educators have great concern over safety, and rightly so, we probably do a great deal of sensory "masking" by keeping children in sneakers for all activity sessions. Children should do more of their activities barefooted. The tactile receptors on the soles of the feet and toes are extremely important for signaling shifts of weight and changes in surface textures.

Setting the environment for a variety of tactile experiences does not receive enough attention. Play areas should be surfaced in a variety of ways. The total play area, particularly outdoors, should be divided into several subareas, each subarea providing a different textured surface: e.g., sand, black-top or cement, natural grass, imitation turf, plastic, and a large shallow wading pool. Facilities for climbing, sliding, and similar activities should be of differing shapes and sizes. The general terrain should not be totally flat, but some portions should be sloping at various degrees from a gentle 10° grade to an abrupt 60° hill. Our physical education outdoor areas need to be a little less tidy and sterile!

BALANCE MECHANISMS (INNER EAR)

Organic development of the labyrinthine, or vestibular organs, is not fully reached until about age two or three. This is probably why motion sickness is rarely observed in infants under two years of age. Rotary and gravity effects are signaled by different sets of end organs at the end of the semicircular canals and these sensory organs react only to changes in the direction of motion. The balance mechanisms, along with vision, tactile information, and data from the proprioceptors, enable one to perceive his body orientation in space. There is some evidence that practice of spinning and inversion does result in a lessening of extreme vertigo at the conclusion of such activities. However, it may be that this is occasioned by conditioning effects and probably can not be credited to any lessening of the sensitivity of the end organs. Vertigo may be lessened and controlled by visually focusing on one point during spinning activities. Focusing reduces the visual nystagmus that accompanies such activity.

Implications from the scanty information available seem to dictate the inclusion of spinning types of activity in programs for children. Early experimentation with vertigo may supply children with pleasurable associations. Even three and four year olds can learn to visually focus on a stable spot to reduce vertigo. Bounce turns on trampolines, spinning around on gym scooters, and playing modified versions of merry-go-round with hula hoops or ropes and gym scooters are but a few examples of spinning activities. Many of the suggestions for activity mentioned in the section on tactile-perception will also involve the balance mechanisms. Since the end organs of balance are stimulated by changes in direction of movement, many opportunities for abruptly changing spatial orientation should be introduced, e.g., a forward roll to a standing half-turn to a backward roll would be effective in stimulating the balance mechanisms. Aquatic experiences are rich in opportunities for children to perceive both dramatic and subtle differences in body orientation.

PROPRIOCEPTION

Organic development of the proprioceptors takes place *in utero*. They, along with the touch receptors, are probably the most "ancient" part of the sensory system, evolutionarily speaking, and are the earliest to develop. Although they probably operate primarily at the reflexive level *in utero* and in the neonate, the young baby soon is able to be consciously aware of the positioning of body segments, muscle tension, and visceral pressures. The proprioceptors function to give us information that is vital for the production of precise motor responses. Recent studies have shown that it is even possible, in a short period of time, to train an individual to fire a single motor unit by attending to proprioceptive information along with visual and auditory signals.

Implications that might be drawn from such information are concerned with the kinds of experiences that would aid children in attending to the proprioceptive feedback resulting from their own voluntary movement behavior. Since it is possible to center conscious attention on information coming from one sensory mode by blocking the information from another mode it might be profitable to have children move through space and perform a variety of motor tasks without visual information, using only the visual mode in occasional checks for error information. Research seems to point to the possibility that males are better able to use "body sensation" information for spatial orientation than are females. It may be that the rough and tumble activities in which boys are encouraged to engage from early childhood are instrumental in helping them to achieve genuine perceptions of their spatial orientation, while girls' activities from early childhood are apt to be curtailed and limited to those behaviors that are considered, by parents and teachers, to be culturally acceptable in relation to the female sex role. Activity programs for preschoolers and elementary school children should contain a wide variety of body orientation experiences, some of which have been described previously in this article. Particular emphasis should be placed on this type of activity for girls.

The implications that have been suggested here are to be regarded as hypotheses to be tested both in the controlled laboratory setting and through action research programs in the school setting. One must always return to research his speculations, for the chief function of research is not so much the factual data derived but the generation of new, relevant, intelligent questions to be answered.

The Motor Learning of Children

Robert W. Christina, Associate Professor and Director of the Motor Behavior Laboratory, College of Health, Physical Education and Recreation, The Pennsylvania State University, University Park, Pennsylvania.

Introduction

The purpose of this paper is to report on what research tells the practitioner about the motor learning of children. However, before focusing on that purpose I would like to comment on the emphasis of this paper which is chiefly limited to discussing motor learning in relation to the physical and motor characteristics of the child's maturation and development. This emphasis is not intended to minimize the importance of other maturational and developmental characteristics (e.g., social, intellectual, emotional) which interact in a complex way to exert their influence on the learning of motor skills. A child's motor learning is in harmony with all of his maturing and developing characteristics, and his motor learning can be understood only in relation to all these characteristics.

Maturation and Motor Learning

When movement behavior is modified as a result of experience or practice, the change in behavior is largely attributed to the process of motor learning. In contrast, when a movement behavior sequence progresses through regular stages as a result of growth processes, but independent of experience or practice the change in behavior is credited mostly to the process of physical maturation. For example, improvements in performance associated with ontogenetic skills such as swimming and skating appear to be to a great extent the result of learning, whereas changes in behavior linked with phylogenetic skills such as crawling and walking seem to be chiefly controlled by maturation. Thus, the influence of learning seems to be greater in the development of ontogenetic skills and the influence of maturation seems to predominate in phylogenetic skills (Rarick 1961). And yet, the development of both types of skills is dependent upon a complex interaction of both learning and maturation. For example, maturation provides the potential for running; opportunity is needed to bring about running behavior; and practice is needed to refine it. Essentially, a child's motor learning is inextricably bound together with his maturation. This being the case, the practitioner must realize that maturation is a prerequisite for motor learning and that the child will not learn a motor skill before he has reached the appropriate maturational level. Further, the practitioner must keep in mind that the process of motor learning in children can be understood only in relation to maturation and come to recognize the critical role of opportunity and experience in the acquisition of motor skills.

Development and Motor Learning

The motor learning of children is subordinate to the laws of their development. Ordinarily, the term development is used to define a series of changes that take place in an orderly and coherent pattern. Development, such as mastering locomotion, is a complex process of integration of the structures and functions of the body; it is the result of maturational and environmental influences combined.

Mussen, Conger and Kagan (1969) emphasize that all children tend to follow a rather consistent predictable pattern of physical and motor development and three patterns are evident:

1. Growth tends to progress from the head to the feet or in a *cephalocaudal direction*. Thus, the child is able to gain control over the upper parts of his body before he can gain control over the lower parts.
2. Growth tends to progress from the center of the body toward the periphery or in a *proximodistal direction*. As a result, the child is able to gain control over the medial parts of his body before he is able to gain control over the peripheral parts.
3. Motor control tends to proceed from *mass* to *specific*. Therefore, the infant gains control over large gross movements before he gains control over smaller, more precise movements.

The rate of development differs considerably among children, primarily because each child is endowed with his own unique heredity characteristics. This is one reason why all children are not ready for the same motor skills at the same time.

Transfer and Motor Learning

It is important for the practitioner to understand the principle that with each year, motor learning becomes largely a matter of transfer. Transfer refers to how the learning of one motor task (e.g., movement pattern or skill) influences the learning of some subsequent motor task. Transfer between tasks depends on both stimulus and response similarity and generally speaking, the more alike the two tasks are the greater the transfer between them. The point to keep in mind is that after the first two or three years of life, learning a completely new movement pattern or motor skill is an uncommon occurrence. To a great extent, new patterns or skills are developed on the foundation of previously acquired patterns and skills. Therefore the learning of motor tasks is largely a matter of transferring previously acquired patterns and skills to patterns and skills that are about to be learned.

Up to this point I've been concerned with introducing some rather general concepts of maturation, development, transfer and the motor learning of children. However, the remainder of this paper will concentrate on more specific aspects of the motor learning of children. For convenience of presentation, the material will be organized under the general headings of "Early Childhood: Ages 2-6" and "Late Childhood: Ages 6-12".

Early Childhood: Ages 2-6

The progressive maturation of the child's physical and neurological mechanisms lays the foundation for increased skill in motor activities. Learning plays more and more of a role in motor performance improvements, but as with infants, broadening of the repertoire of motor skills must await physical and neurological maturational development.

Presented at the Research Section Symposium: "What Research Tells the Practitioner About Children's Motor Development" AAHPER Convention, Atlantic City, New Jersey, March 15, 1975.

Variety of Basic Skills is Important

This period of early childhood may be viewed as a time for building many different fundamental motor skills which, if adequately perfected, may be used as a base for developing more complex motor skills in the future. By the end of this period the average child has acquired a variety of basic motor skills at some level of proficiency. The work of Bayley (1965), Deach (1951), Gutteridge, (1939), Halverson and Roberton (1966), McGraw (1935) indicates that the average child can learn to ride a tricycle, run, jump, hop, gallop, skip, and with regard to ball skills he can throw, catch, kick, bounce and strike. If some children are given the opportunity it has been shown (Hottinger 1973; Leithwood 1970-71; Mead 1930; Water Babies 1971) that they can learn complex motor skills such as swimming, roller skating, riding a bicycle and even standard gymnastic activities. Of course, for such learning to take place the environment must be properly structured in relation to the child's motor readiness level. For example, whether the child is trying to learn to ride a bicycle or learn gymnastic activities, it must be made clear that the bicycle and the apparatus has to be scaled down to his level. Further, precautions must be taken to safeguard the child against injury and eliminate his fear of "getting hurt."

The acquisition of a variety of basic motor skills provides advantages to the child that extend beyond the satisfaction produced by that acquisition. It permits the child to become more and more independent, it provides him with a means by which he can interact with other children, and it is likely to be a positive influence on the development of his self-concept. As Havighurst (1953) stated, "To an increasing extent, a child's conception of himself is tied up with the skills he has. It is as though his acceptance of himself comes in part from his ability to master different forms of the world outside himself."

Capitalizing on the Child's Interests

Early childhood is a period when the child likes to play, experiment and explore. He should have the opportunity to do so because it is through these means that he comes to develop many motor, intellectual, social and emotional abilities. Let the child play, experiment and explore, and within reason let him set his own pace. Avoid structuring situations that will create fear or anxiety in him. When children are involved in games, allow them to make up their own rules and regulations. For the most part then, the motor learning of skills should be left to play, experimentation and exploration. Such motor learning sessions should place more emphasis on the object of the movement or on problem solving, rather than the mechanics of the movements themselves. However, if the purpose of the session is to master a particular motor skill, more emphasis must be placed on the mechanics of the movements themselves.

Toys are important to the child's play and his development during early childhood. Espenshade and Eckert (1967) say, "Toys are, at one and the same time, the instruments of play and the tools by which children develop their gross and fine motor abilities." Favorite toys of children include blocks, balls, push and pull type devices, wagons, kiddie cars, tricycles, roller skates and bicycles. Lockhart (1973) recommends that the child have at least five types of toys: (1) toys for developing strength and a variety of motor skills; (2) toys for dramatization and imitation; (3) creative constructive toys; (4) toys for developing artistic abilities; and (5) toys providing opportunity for intellectual development. In addition, toys should be safe, sturdy, and should be manipulated by the child (not motor driven).

Differences in Motor Readiness

During this period boys and girls are about equal in their motor development. However, for both sexes there are marked individual differences in "readiness" for learning motor skills. All children are not ready to learn the same motor skill at the same age. Consequently, the learning of motor skills and the expectancies concerning motor performance should be individualized in relation to the child's maturational level. Opportunity should be provided for the child to experience a reasonable degree of success in his motor performance. An environment in which the child experiences repeated failure in motor activities is likely to be detrimental to his development.

It is unfortunate that research provides us with no exact rules that can be used to help the practitioner in deciding when a child is ready to learn a specific motor skill. The perceptive, experienced practitioner claims he can tell when the time is right because the child has his own ways of letting him know. This certainly isn't much to go on for helping the inexperienced practitioner determine when motor learning comes easiest for the child. Further, it places him in a rather difficult position because he is responsible for providing the environment and materials for motor learning at the appropriate time in relation to the child's readiness. To pursue this task on the basis of the research information available is a bit frightening, but nonetheless, the practitioner is obligated to do so.

Late Childhood: Ages 6-12

The late childhood period is ideal for learning more complex motor skills. The physical and neurological mechanisms are becoming developed to the degree that the child can refine and build on the movement patterns and basic motor skills that were acquired during infancy and early childhood. The first part of this period finds the child having some difficulty in mastering fine manipulative skills, but by the end of this period his motor behavior is rather well integrated.

Differences in Motor Readiness

Maturational influences and individual differences in motor readiness for both sexes are still present in late childhood. Instruction should be individualized as much as possible and the child should not be introduced to certain motor skills before he is capable of acquiring them. Lockhart (1973) also stressed individualized instruction and stated, "Emphasis should be put on the child's own progress, not on comparing his achievements with those of others. So great are individual differences that even by the fourth grade there may be a gulf between youngsters as wide as a six-year span. Approaches and expectancies for motor learning must differ from individual to individual." Scott (1968) says, "Most children are not able to perform activities requiring good coordinations of the whole body much before the ages of 7 or 8, and introducing them too early to such activities only results in unskilled performance and failure." Taking the lead from Bruner (1963), Singer (1973) points out that many motor skills can be changed and modified to meet the child's motor readiness level. He also emphasized that practice and special training produce desired results only when the child is maturationally ready. As with early childhood, there is agreement among the experts that instruction should be individualized, but there seems to be

little scientific basis for determining when a child is ready for a certain motor skill. Nevertheless, the practitioner is still obligated to wrestle with this problem and provide the answer.

Sex Differences and Motor Learning

Motor performance on the basic skills (e.g., running, throwing, catching, jumping, balancing, striking) are gradually improved with age for both sexes (Seils 1951). In addition, complex motor skills are built on already learned organization, that is, on existing basic skills. These complex motor skills usually include game, dance, and sport skills.

Boys have been found to perform better in those gross motor skills which demand strength and large body movements, whereas, girls usually perform better in fine motor skills which require a high degree of coordination and precision (Espenshade & Eckert 1967; Keough 1965; Singer 1973). After reviewing the literature on this topic, Broverman et al. (1968) concluded ". . . evidence exists that females exceed males in tasks that require rapid, skillful, repetition, articulation, or coordination of 'lightweight,' overlearned responses (perceptual responses, small muscle movements, simple perceptual coordination)." It has also been found that boys continue to improve in the basic skills whereas girls usually do not, and the difference between their motor performances, which is slight in early childhood, increases with age (Espenshade 1960; Latchaw 1954).

However, the difference in motor performance at a given age and the difference in improvement in motor performance with age does not necessarily mean that sex is a factor in the potentialities for skill learning. It is likely that some of these motor performance differences as a function of sex are largely due to sociocultural pressure to have boys engage in certain activities and girls in others. For example, the leveling off of improvement typically found in girls at later ages may be largely the result of pressure to become involved in activities other than the basic motor skills because they may not be considered "lady like." Therefore, if given the opportunity, it seems reasonable to expect that girls could *learn* motor skills about as equally well as boys.

Other Motor Learning Considerations

Exposure to a variety of skill opportunities is important for developing a wide range of motor skills and for developing physical abilities such as strength, endurance, flexibility, balance, agility, speed and coordination. The skill opportunities should also be designed to contribute to the child's self-esteem, body image, peer acceptance and social behavior. During the early years of this period children are interested in swimming, rhythmic and dramatic experiences, movement exploration, simple movement activities and games of low organization. In the later years, children are interested in more complex motor skills and formal instruction can be started in skills such as golf, tennis, baseball, gymnastics, basketball and soccer. Children are capable of specializing at this level, but it would seem best to have them experience a variety of skills and allow true specialization to come later.

During this period children are interested in free play and it is important for their motor development, but free play should be coupled with systematic instruction in motor skills. Although there has been some research (McDonald 1967; Miller 1957) on instruction in children's motor learning, little is known about the age at which instruction becomes most meaningful. Singer (1973) proposes that it depends on the nature of the skill, the maturational readiness of the child, and the type of instructional procedure employed.

In order to learn a specific motor skill the goal must be clearly understood by the child. Further, he must be motivated to achieve the goal. Once the skill is demonstrated, the child will form an "image for action" or an "idea" for what movements will have to be made as well as how to make them. The child should not be expected to reproduce the movements in the same form in which they were demonstrated. There are many movement variations which are acceptable approximations of the so-called "correct way" for executing a skill.

Ideally, the skill can be practiced as a whole, but if the child cannot achieve success, the skill must be broken down into subskills and practiced as such. Once the subskills are mastered, they must then be practiced together as a whole. During the initial stages of learning the skill, when the child is likely to fatigue quickly, practice should be distributed. In other words, the skill should be practiced frequently, but not for too long a duration. In the later stages of learning, when the motivation which comes from success increases, practice periods can be lengthened.

Practice alone is not enough; the child must be helped to understand how his movements can be improved. He should receive knowledge of results about his performance but he should not receive too much information. Don't analyze excessively during the early stages of learning. In order to keep the child motivated he should experience a reasonable amount of success in the skill. The motor behavior reflecting the success should be reinforced to promote learning. Remember, the learning of motor skills should be a pleasurable and satisfying experience and not an experience in failure and frustration.

Concluding Remarks

Based on the literature reviewed, this paper attempted to present some highlights of what research tells the practitioner about the motor learning of children. This was a difficult task because of the lack of research on many aspects of children's motor learning. For example, there are relatively few studies which deal with various learning phenomena such as motivation, reinforcement, knowledge of results, transfer, practice, and retention and forgetting in relation to children's acquisition of motor skills. However, recently at least two researchers (Bruner 1970 and Schmidt 1975) have provided us with theoretical explanations of motor learning and skill development which could serve as a springboard for future research on such learning phenomena. Another aspect that has received limited attention is the influence that the learning of motor skills has on the child's social, intellectual and emotional development. An additional aspect receiving little investigation is concerned with the early motor experiences that are important for the child's development. The available research does not tell us about the kind of experiences, the amount of exposure to each experience, and when each experience should be introduced for learning to be most effective. Much work needs to be done because research has not provided the practitioner with the scientific bases for knowing how to develop to the maximum all the motor learning potentials of the child.

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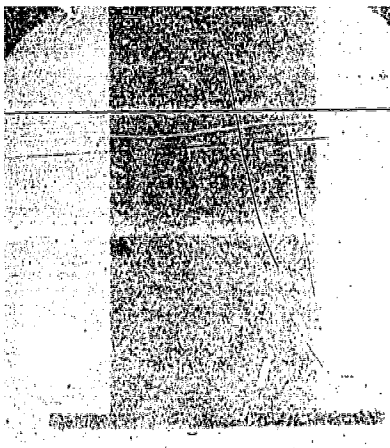
Physical Education for Special Populations



THE emphasis was on providing good programs for the mildly and moderately retarded during the early stages of programing in physical education for the mentally retarded. It is understandable that this should have been the case because of recognizable similarities between responses of mildly and moderately retarded children and those of nonretarded youngsters. Mildly and moderately retarded children are able to run, jump, catch, and throw a ball in much the same way these skills are performed by their contemporaries. Severely and profoundly retarded, on the other hand, have few motor characteristics in common with nonretarded children. They do not respond in ways that are familiar to teachers accustomed to children in ordinary classrooms. The severely or profoundly retarded child does not listen well, if he listens at all. His responses, if he makes any, are vague and meaningless. He cannot catch a ball or execute similar motor skills nor does it appear that he cares one way or another.

It was, therefore, some time after physical education programs for mildly and moderately retarded had been established that physical educators began to investigate the possibilities of improving the motor skills and physical fitness levels of severely and profoundly retarded. In initial studies and experimentation, a large percentage of these children were found to show positive changes in motor ability as the result of participating in well planned and well presented physical education programs.

The range of activities in physical education programs for severely and profoundly retarded is necessarily limited. Experiences offered should be ones that develop basic, everyday skills such as lifting the feet over objects and going up steps. The way in which activities are presented by teachers is extremely important in achieving good results.

In teaching severely and profoundly retarded, two or three different activities may be presented in one class period. If a child refuses to participate in one kind of activity, he may take part in another. Participation in any one activity should be rather short. Retarded children often perform best the first few times they try a skill. Consequently, it is to their advantage to end practice periods before boredom or frustration occur. After leaving one activity teachers may return to it in a few minutes or at some time before the period is over; activities should be presented every day until learned. After the skills of an activity have been mastered, new activities may be introduced. Skills already learned should be reviewed briefly from time to time.

Teaching these students requires great patience and kindness. Teachers should never resort to pressure tactics to achieve improvement. They must realize that improvement may come very slowly and that they must work patiently with students until it comes.

Firm control of students must be exercised without resort to threats and punishment. Discipline must take a form that the child is capable of comprehending. Punishment and withdrawing privileges have very little meaning for these children.

Praise for good conduct and withholding approval for poor conduct are more effective because most children understand these. Praise should be offered generously for any efforts students make. The effort may not result in successful performance, but the fact that it was made should be recognized by teachers and favorably commented upon.

Verbal praise has its limitations, however, because many of these children do not comprehend the spoken word, so other means of rewarding successful behavior should be considered. An effective method of *operant conditioning*, using candy as a reward, was used effectively in teaching motor skills in physical education in research at Mansfield Training School (Connecticut).

Operant conditioning is a behavior modification technique utilizing reinforcement: reward of some sort is consistently given for a specific behavior immediately after the action. For some students, praise or knowledge that the attempt was successful is sufficient reinforcement. For others, especially those low on the scale of retardation, a reward of candy is effective. When using reinforcement, the time between reinforcement and desired behavior must be as short as possible; otherwise the child is not always certain why he is being rewarded. The reward should be given consistently and given only for performing at maximum capacity.

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Teaching & evaluating physical educ

A movement that is made up of two or more parts must be broken into its components and each taught separately. For example, the movement pattern of reaching for and picking up a ball may be broken into these components: (1) make a movement in the direction of the ball, (2) touch the ball, (3) place the fingers around the ball, and (4) lift up the ball. The child is first encouraged to reach for the ball; any effort to do so is rewarded with candy and words of praise. Thereafter, the reward is given when the child reaches the same distance or a greater distance than his initial effort. Whenever he reaches a greater distance, bringing his hand closer to the ball, the new distance becomes the point of reinforcement. When the child finally touches the ball, this becomes the point of reinforcement; likewise, when he grasps it and when he picks it up. After the child has mastered the skill, the candy reinforcement is gradually withdrawn. Praise and approval continue to be given for successful effort; eventually, they can be used entirely as the reinforcer.

Although physical education programs for severely and profoundly retarded are being developed, little attention has been given to means of evaluating the results of these programs. It is, of course, absolutely essential to determine the progress of the children in order to know what activities and methods are most successful.

One method of evaluation is subjective analysis based on careful observation by the teacher of the quality of performance and the behavior of each student during the physical education class. Observations are recorded in brief form as soon after class as possible; these notes can then be used in writing up evaluations of each student's progress at the end of designated periods. These notes will also reveal a good deal about the effectiveness of the teaching methods and the materials used.

Use of objective tests is limited by the lack of suitable test instruments. However, experimentation and research are under way to develop them.

A test developed at the Mansfield Training School serves as an example that can be used to objectively evaluate progress in specific motor skills. Test items were developed to measure progress in certain core activities: (1) crawling, (2) rolling, (3) walking up and down stairs, (4) running, (5) grasping objects, (6) throwing, (7) catching, (8) balancing, (9) jumping off obstacles, (10) stepping over and into objects, (11) bouncing, (12) climbing over, upon, and off objects, and (13) kicking. For each test item the range of possible responses was determined and each response assigned a numerical value according to its degree of difficulty. Each test was constructed so that a child making a specific score would be able to make all responses with a lesser value. For example, a child who scored three on *crawling* would be able to perform responses from zero through three. A score of two represents average ability to perform the motor skill of students whose IQ is in the range of 0-34 and who are not physically handicapped. A total score may be calculated by adding the scores of test items and dividing by the number of test items administered.

A study by Crampton in the early part of this century showed that highly trained and well conditioned athletes had lower pulse rate differences between lying and standing positions than those not in good physical condition. Later studies did not confirm his findings, so that this measurement as a means of evaluating cardiorespiratory efficiency was abandoned. Recent reinvestigation of this measurement indicates that, although pulse rate differences are not good indicators of physical condition when comparing those in average condition with those in superb condition, they may be reliable indicators when measuring those who are extremely sedentary, as the severely and profoundly retarded usually are.

Although my study is not complete, I have found some observable lessening of pulse differences in extremely sedentary retarded youngsters after they have been conditioned in an exercise program consisting mainly of running. In some cases, basic pulse rate is lower after a conditioning program. If this finding proves to be true in subsequent examination, and we can reasonably expect that most extremely sedentary severely and profoundly retarded will respond in this manner, then we will have a valid test of conditioning—more specifically, a test of cardiorespiratory endurance. Such a test will be extremely useful to teachers who wish to determine the effects of any specific physical education activity upon the cardiorespiratory endurance of any child in the program.

EDITOR'S NOTE: Another study to provide a means of evaluating motor ability in the severely and profoundly retarded is being conducted by Jean Calder, University of Queensland, St. Lucia, Brisbane, Queensland, Australia, under the direction of Hollis Fait. Miss Calder is attempting to establish a MOTOR AGE *classification.*

The term MOTOR AGE *for this project is a composite score from motor skill tests that indicates the age level at which certain motor abilities generally develop in normal children 0 to 5 years of age; or, if the results of testing indicate that a composite score cannot be achieved, the term will be applied to the age level at which a specific skill is generally developed in normal children. The* MOTOR AGE, *when determined, will become a standard for evaluating motor ability and for programing physical education for the severely and profoundly retarded.*

The rationale for the project is based upon the following: normal youngsters tend to develop certain motor characteristics during specific periods of their childhood so that the mean characteristics can be determined for any given age. If the specific motor skills that develop at certain age levels in normal youngsters also develop in the same order in retarded youngsters, if they are developed at all, but at a later age—as would probably be the case since retarded youngsters do mature more slowly—scores can be determined from a battery of motor skill tests that will indicate the motor age level of the retarded individual. If the specific motor skills for the retardates do not develop in the same order as that of normal youngsters, it will nevertheless be possible to develop a Motor Age Profile Chart that will show the motor age for each individual activity.

ion for severely & profoundly retarded

BEHAVIORAL INTEGRATION OF PROBLEM CHILDREN THROUGH REMEDIAL PHYSICAL EDUCATION

ERNST J. KIPHARD

Professor Kiphard is director of movement therapy at the Westfalisches Institut fur Jugendpsychiatric und Heilpadogogik in Hamm, Germany

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Physical movement in its exuberant and enthusiastic modes of expression is a basic need of children. Movement is an important part of the developing personality. The younger the child, the more basic and spontaneous the movement.

We need to understand the term "psychomotor" so that we will not become stuck in the purely mechanical and functional aspects of movement. Movement is more than this; it is the medium of expression of the physical and emotional conditions of a person. Observation of the psychomotor behavior of a child opens the door to an understanding not only of motor dysfunction but also of psychological and social difficulties. Conversively, movement provides the educational means to affect positively this psychomotor dysfunction. The improvement of movement in the sense of a psycho-motor integration of young children results in time in a profound stabilization of behavior. Therefore it is often indicated at the beginning of any measures taken for the socialization and rehabilitation of the disturbed child.

Through motor activity we aspire to aid in the development and unfolding of the physical, emotional, and intellectual potential in terms of a comprehensive education toward the formation of character and equipping the individual to deal with the task of living. The following traits of character are especially promoted: self-discipline, moderation, will power, the ability to make decisions, courage, perseverence, and diligence. Furthermore, the will to prove oneself, to devote oneself to something, to achieve something are promoted. In addition, the joy in creativity is awakened. Social virtues such as tolerance, a sense of justice, dependability, taking pleasure in responsibility and decision-making, companionship, and devotion to others can be acquired. In short, an "active public spirit," as the German educator, Kurt Hahn, put it, can be developed through movement education, through play and competition in sporting events.

Although remedial physical education cannot add anything to these basic goals, ideas for the education of "normal" children may emanate from remedial education theories. On closer observation these children are often not at all as "normal" as they seem when observed within the anonymous mass.

If we trace in detail the integrative healing effects of educative movement, we arrive at the following considerations, a classification of the various aspects of the educational endeavor, which are discussed in this article.

1. The functional aspect
2. The emotional aspect
3. The social aspect
4. The educational aspect.

PERCEPTUAL-MOTOR DIFFICULTIES

In the functional motor and physiological sphere we attempt to raise step by step the efficiency of the lung-heart circulatory and muscle systems through exercises involving strength, speed, and endurance. Problem children—a collective term for heterogeneous and multidimensionally manifested forms of maladjustment—often lack the elementary physiological prerequisites for the control of their motor functions.

Besides general improvement of physical fitness, which obviously also leads to an improvement of posture, special training of motor coordination is of great importance. By this we understand the training of skill and agility in continually new and challenging movement situations with a variety of small and large pieces of apparatus, in which the child should find adequate and satisfying motor responses.

Many brain-damaged children have inadequately structured fields of perception and image. They therefore lack the ability to coordinate perception and goal image into a response adequate to the situation. Their perceptual-motor discoordination manifests itself in the fact that they are scarcely able to perceive two objects simultaneously. This deficiency in multiple optical perception constitutes an immense handicap for such children in sport and play situations. Quite apart from the frequently prevailing difficulties in social adaptation, a team game is quite out of the question for them because of the defect in sensory-motor coordination from which they suffer.

Children who are lacking hand-eye coordination cannot catch a ball accurately. They do not fail primarily because of an impairment of the motor control of the hand, *but rather because their eye movements are too slow*. As a result, their catching movements are too late for the ball. They are not guided precisely enough by the eyes, which are unable to follow the rapidly moving object. A balloon, because of its relatively slow flight, can usually be followed visually quite successfully, but not so the rapidly approaching ball.

The lower the ability for perception, adaptation, and reaction, the more the child will react according to habitual or routine reaction pattern. In these cases an improvement of motor-adaptability is gained through frequent but scarcely noticeable changes in the movement problem of the exercise sequence. These changes should be made at a point when the preceding movement task has just barely been mastered. We have learned from experience that children with motor coordination disturbances find it easier to modify and reshape coordination patterns that they have just learned. If, however, the motor memory traces in the cerebral cortex are firmly set, it is more difficult to forge subsequent cross-connections aimed at new or slightly varied motion-patterns. From sport education we know that flaws within a movement pattern that has become habitual are very difficult to erase later. Besides this perceptual motor aspect in improving movement coordination, we must also try to increase the child's ability to contract and relax muscles.

MOVEMENT AWKWARDNESS A DISGRACE

As a consequence of continual experience of failure, children with weak or impaired motor coordination also suffer emotional disturbances. There are two diametrically opposed forms of reaction to such motor inadequacies: inhibition and complete lack of restraint. In the first case the child loses all desire to conquer his surroundings and assumes an attitude of passivity and regression. In the second case the child's despair, despondency, and resignation are overcompensated and cheeky, unrestrained, and aggressive behavior patterns usually dominate. Between these two extremes of psychomotor behavior patterns stands the apparently indifferent type, who does not participate and remains seemingly unimpressed, who merely smiles at each new failure as if he did not care. In this case, too, much is demanded of the physical education therapist, if psycho-motor exercises treatment precedes psycho-therapeutic treatment. The child is here not ready psychologically for the motor experiences.

Therapeutic value of progressively structured achievement

Apart from the rare extreme cases just mentioned, it has been our experience that it is always possible, in the long run, to equalize the psychomotor disabilities through progressively structured achievement. The inhibited children become more outgoing and take heart when given the opportunity of using their unskilled movement initially in playful activity. The tense, unbridled, and overactive child will be helped by the general experience of success and the ensuing recognition he receives. With his newly found motor skills he finds himself from time to time the focal point of others' attention. He no longer needs to force himself upon their attention with rebelliousness and disturbing actions.

Of course, firmly established patterns of maladjustment cannot be removed suddenly by movement therapy. They are altered slowly and gradually. In the course of time, the unbalanced, inconsistent, and unstable child gains in firmness, stability, and inner harmony.

In this respect, it is important to observe a basic principle in progressively structured achievement. First of all, build up the child's strong points! Approach the weaknesses much later! We must try to assess as quickly as possible the latent abilities in the individual. Their courage must be strengthened and a foundation for confidence in their own ability must be established. Only after stabilization of the initially unsteady base is it reasonable to approach specifically the particular motor problem.

NO SOCIAL PRESTIGE WITHOUT ACCOMPLISHMENT

The sense of belonging and the ability of social contact develop only on the basis of a harmonious and secure belief in one's own worth. In addition to a characteristic drawing away from social contact because of an innate self-centeredness which seems to resist any therapeutic influence, we meet in the emotionally disturbed child and adolescent either a "regressive" tendency, a withdrawal from the group, or an "aggressive" attitude toward his peers. In the first case there is a general aversion to and rejection of any collective activity. In the second case the individual adopts a defiant and hostile attitude toward the group. In both cases the group fails to give the child the recognition and acceptance so essential for his self-esteem.

Functional inferiority—the physical awkwardness which makes the individual appear useless to his peers—is a basic problem. What is the class, the team, to do with a weakling, a "dud" who is always behind any other runner in the race, who is afraid of the ball in the soccer game and always misses it with his clumsy movements? If the teacher, nevertheless, lets the boy join in, he will be verbally abused, angrily shoved away, and sometimes hit

or kicked because he is too slow, muddle headed, and inactive or because he has done something wrong yet again.

In this case, a patient, progressively structured achievement approach can work wonders. Specific activities aimed at social adaptability can be added. Milestones on the way to this are learning to adapt to a partner, to a group of three, and to small groups. Play is a great help. One should begin with simple, easily grasped games. A "witch" tries to catch the other children; the "twins" try to do the same thing while holding hands; a "hunter" has a large box of balls and from the center of the room tries to hit the "hares" bouncing around him. The step from games where everyone plays against everyone else to a team game is quite a long one and often not yet possible with younger children.

FROM LACK OF CONTROL TO SELF-CONTROL

With regard to the practice of exercises, two facts are of paramount importance: "self-control can within certain limits be trained" and "self-control begins with the control of movement and is only to be reached through this."

Since true educational effort is basically aimed at self-education, everything in remedial education and, we believe, everything in normal education, depends on awakening self-direction. We must give the child the opportunity to experience the joy of being master of himself, his own movement, and its effect in conquering the obstacle, a piece of apparatus. We must allow an inner sense of order to develop gradually instead of letting the child be satisfied with an external order imposed by authority, which only causes resistance in problem children.

Education through music and rhythm

Initially it is sufficient to aim at letting the child adjust voluntarily to a general discipline which everyone accepts as the rule of the game. Music and rhythm capture the children. They are far more willing to yield to this "captivity," this relative lack of freedom, which consists of accepting some objective neutral law, than to the authority of an adult. And they enthusiastically submit their movements to this neutral law whose formative and disciplinary forces can now exert their influence on the children.

For the inexperienced teacher, it is at times a real salvation to break into a noisy, disorderly lesson with the organizing element of music—singing, clapping, or playing an instrument. As a last resort music from a record player or tape recorder can be utilized. The movements the children perform to this music can be the simplest (walking, running, skipping). Each child should wherever possible follow his own path in space (free self-direction) without touching anyone else (self-control).

Exercise in self-command

In the quest for self-discovery and self-control further steps become necessary. The first type of exercise playfully repeated with endless variations and modifications is that of suddenly arresting one's own motion. From a run as fast as possible the child learns to sit or lie down suddenly and does so on his own volition. The teacher is quite free to use external stimuli for this: a gong is suddenly sounded, the teacher raises a hand, or a hitherto continuous stimulus, music, or a tambourine, suddenly stops.

Simultaneously the ability for relaxation in resting position is practiced, preferably with eyes closed. These two exercises can easily be combined; when the music stops the runners assume a lying position with lightning speed, close their eyes, and remain completely motionless until the music begins again.

Training of the senses

The acquired ability for arresting movement and for relaxation leads on now to a planned program of training of the senses. Here again, voluntary closing of the eyes is aimed at in all exercises for hearing, touch, and spatial orientation. The child with light brain damage frequently lacks the ability to choose between all the stimuli offered by his surroundings; the stimuli impinge on him unchecked. The more these children receive auditory and visual stimuli at the same time, the more their attention fluctuates and the less able they are to concentrate. But if they close their eyes, they temporarily exclude all visual stimuli, and only then do they understand that they possess other useful senses. This deliberate isolation of senses is an enormous help to problem children who lack the ability to concentrate, as they progress toward intensive and concentrated activity. Training of the senses is always at the same time training in concentration.

Training in deliberate gentleness

Even more difficult than the above mentioned breaking of a swift running is the consciously gentle, cautious, and at every stage carefully measured execution of slow movements. These exercises in "deliberate gentleness" are the counterpart to all extensive, spacially large, and highly dynamic forms of motion. They are, from an educational point of view, the visible sign of a mastery of self through coordinated motor control.

Exploring and creative exercises

It would be one-sided and uneducational if the child were not allowed the chance to be creative with his own particular modes of expression. All children, particularly inhibited ones, should be given the opportunity to explore in a creative and imaginative way. They often do not know at first where to begin with this freedom of choice and opportunity for self-discovery. For this very reason it is wrong to give the children absolutely unlimited possibilities right from the beginning. It is far easier for them to choose their own way if there are not too many alternative possibilities. The essential limitations concern space, time, and implement. Otherwise the pupils will be afraid of drowning in the boundless sea of possibilities and therefore never dare to take the first step on their own.

The children should learn at every opportunity to think things out, to find ways of solution of their own—whether it is to find a way over obstacles or in playing with hoops, balls, or balloons. Play-acting games will be particularly helpful for inhibited children and especially for stutterers. The gamut of these activities runs from animal imitations through simple pantomimes to the pantomime representative of real situations.

WATER ACTIVITY TO COMBAT PERCEPTUAL MOTOR PROBLEMS

By Edith DeBonis, Professor of Health and Physical Education, Southern Connecticut State College, New Haven, Connecticut

Water activity designed to help children move more efficiently, rather than to teach them to swim, has proven to be an exciting and promising new dimension in working with children with perceptual-motor problems. With this new approach, children are not taught to swim, although the fact that often they do learn is an added bonus. No demands are made on the children to perform structured, precise, simultaneous leg and arm movements, to learn certain strokes, nor is there formal instruction and drill in proper breathing. The frustration of attempting these demanding skills, for youngsters who already have problems with motor responses, has been removed. A creative method of discovering movement in the water has been substituted, and all children in the program—those who know how to swim and those who cannot—participate. Using small equipment, such as beach balls, hoops, pucks, pennies, flutterboards, stretch ropes, etc., youngsters discover the buoyancy of their bodies in the water. In the process of solving problems, they find they can duck their heads and can move their arms or legs, or both, to propel or lift their bodies, or to reach in different directions with their hands and feet. They can balance and do many things in the water without actually swimming.

By playing carefully selected games, the children's involvement in the activity is so complete that their movements almost become reflex responses. The incentive of wanting to do what everyone else is doing cannot be underestimated. The addition of music to accompany activities is another motivating force. Special activities such as walking relays are used to encourage movement in the water. At times, more directives need to be given to help the children recognize spatial concepts—right-left, in-out, up-down, forward-back, over-under. Awareness of personal and general space can be developed gradually by moving individually in one's own space. Children can see how far they can reach in any direction by stretching or curling with their hands, arms, legs, feet, or neck. Children can learn to plan their movements by designating general space with floating rope dividers. General space can be progressively enlarged, eventually removing the dividers to require children to plan where they can move with greatest security and safety. As they learn this, they move more freely and confidently.

To add further experiences for the children, have them enter the water from different spots and in different ways. For practicing balance, utilize a rope held taut on the bottom of the pool as a tight-rope for the children to walk in heel-toe fashion; eyes can be closed as children develop ability and confidence. Having children bunny hop, with feet together, over the rope, gradually raised higher, can assist in the development of explosive power.

Such water activity helps children discover for themselves their overall movement potential. It is hoped that they will develop the personal cognitive security needed to feel free and confident in their movements not only in the water but in other environments. The extent of transfer of movement in water to that in other environments where the added problem of gravity is present is yet to be proved, but the prognosis leans toward the positive.

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Can we actually determine a *single* best order in which to teach swimming skills to the retarded? Can we really determine a time schedule for moving on from one skill to the next?

Methods and materials used in teaching the mentally retarded to swim need to be reviewed, evaluated, and reclassified. Many swimming instructors have concluded that the basic methods of teaching swimming need to be revamped, especially those used with certain retardates — the young, those of low functional levels, the timid and fearful. There are many sequences and progressions which can be used effectively. The instructor must prepare a lesson for each individual, taking into consideration his total functional abilities. The traditional group approaches cannot be used with most retardates; the instructor must think, evaluate, and plan accordingly. He must be creative, find new devices, introduce fresh methods and approaches, and appeal to the individual retardate with whom he is working. The swimming instructor must be a psychologist, educator, friend, benefactor, and analyst, combined!

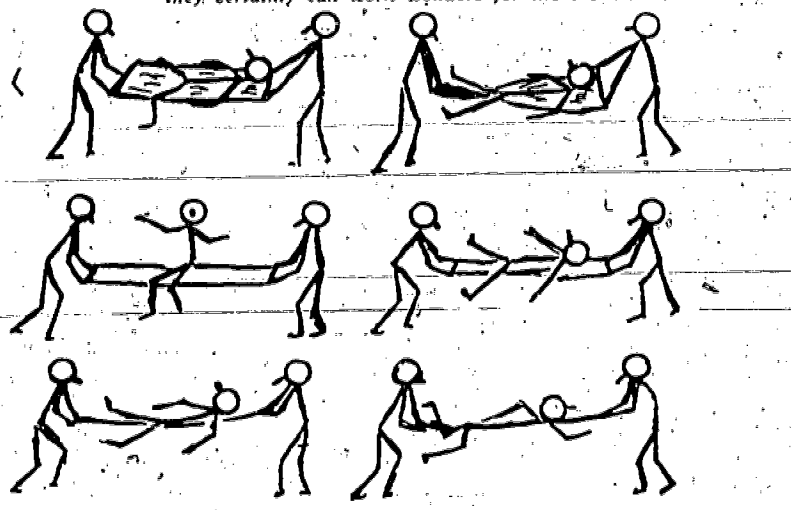
Methods which capitalize upon familiarity and security have been found to be the most effective with the mentally retarded. Since most children, from early infancy, have had the experience of having their faces washed with a soft washcloth, this old friend is brought to class with us. We do not create fear by using an approach which throws water into the child's eyes; there is no splashing. The child progresses at his own rate and has fun while he learns.

Many children are too small for the shallow end of the pool, so with towels we bring the bottom of the pool up to the child! There are many ways in which a towel can be used as an aid in helping a timid child to become accustomed to the water. The instructor must be alert for natural lateral movements which give clues to strokes and skills which might be most appropriate for the individual.

Have the child balance on a plank (2"x6"x8'), lie down, roll over, and move along it. As he gains confidence, encourage him to stay on the plank by using natural arm movements.

A length of rope can be used in the same way as the towel or board. As the child gains ability, one end of the support can be lowered so he is actually keeping these body parts afloat himself. Gradually the entire device can be lowered to allow the child to float on his own. However, keep the support close enough to him in the early stages so it can be reapplied if he starts to sink.

NOTE: Even nonswimmers can hold on to one end of the towel, plank, or rope. While the devices below are simple ones, they certainly can work wonders for the instructor.



Activity Groups in the Elementary School

TERRENCE E. COTTON is a physical education teacher and THOMAS J. HALEY is a social worker at Thoreau Elementary School, Concord, Massachusetts 01742.

For children whose mental status, background, and potential allow them to succeed, school can be a fun place to spend a day. For other children—because of family difficulty, social inabilities, poor academic achievement, etc.—school is a place where they fail and gain a negative reputation. Negative stigmas are solidified by those around them, and such children begin to assimilate a poor self-image. With constant negative reinforcement they begin to doubt their own ability to do well, to succeed. This article is concerned with these children and their participation in activity groups.

Activity groups are comprised of small numbers of children (6 to 12) who meet formally once a week in the school gymnasium. Members include "problem children" and also "non-problem" children who have adapted well to the school setting. We feel that it is most important that the activity groups be of a heterogeneous nature. That is, none of the groups are comprised either solely or mainly of problem children. As often as possible the groups are split evenly, with half of the children being referred to us because they are having difficulties and the other because they usually don't have school problems. This latter child is usually an average student who is well liked and who has the ability to relate well with other children. The inclusion of "non-problem" children in a group accomplishes several desirable goals. First, it reduces the possibility that any excessive labeling takes place with respect to the children in the groups. We feel labeling by peers and faculty is the single greatest negative reinforcer for the problem children, and when it is apparent that average, "non-problem" students are in the groups, labeling should diminish. Secondly, the inclusion of "non-problem" children in the groups acts as a built-in-support and control mechanism. The non-problem children tend to keep activities going over a longer period of time, and their ability to control their own behavior usually minimizes the confusion and chaos which dominates the "problem" child's free time.

Coordinating these activity groups is the task of the school physical education teacher and social worker. These educators offer the children vigorous activity with a variety of controls. Methods vary but the goal remains the same —*success* for each child. Success is a wonderful thing to experience; it gives one a positive self-feeling and gains for him much-needed recognition. The initial task of the group activity program is to let the children experience areas of success and to reinforce this strongly. Reinforcement can be through verbal praise, peer acceptance, recognition, or other means. Once the child has some confidence that he can succeed, it is hoped that he will generalize this to the classroom and beyond. It is here that the child begins to have feelings of entitlement about his life—that is, that he has the right to do things and be recognized as an acceptable person.

The average group session is 35 minutes. The activity engaged in on any given day is decided on by the entire group. On occasion, individuals are allowed to pick an activity for the larger group to do. Most of the activities performed in the groups have already been done in the regular physical education classes. The instructors often participate with the group, serving as a control for tempo and behavior. Ideally, however, the greatest control exerted over the group comes from its own internal pressure. The group members realize that the amount of fun and time they get each session is directly related to their own ability to get organized, to maintain order, and to keep the activity going. Therefore, the pressure is to cooperate and to do well, and the expectation is that all the children will behave in a manner that will ensure group success.

It is too early to predict what degree of success will be realized by any of the group members. However, many of the children have improved in such basic areas as self-image, self-confidence, and the ability to interact in a group for a sustained period of time. They are beginning to feel that they can do certain things well; it is hoped that this feeling will expand into their classroom experiences. In several instances we have noticed definite areas of social, as well as physical, improvement on the part of the children who might be considered the school's "bad boys." In these cases, the improvement reflects a decrease in the children's getting into trouble or disrupting a classroom. While these improvements don't of themselves remove negative reputations, they do serve as a basis for that end.

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programs for handicapped

Physically Handicapped Children Use the Stegel

SUSAN J. GROSSE teaches physical education at F. J. Gaenslen School, 1301 E. Auer Avenue, Milwaukee, Wisconsin 53212.

The Luenеburger Stegel, also known as the All-Purpose Trainer or Lind Climber, is a versatile piece of climbing equipment rapidly achieving popularity in elementary physical education programs. It consists of three poles which may be arranged at several different heights between two sawhorse pieces. A ladder and a slide may be attached to either the poles or horses. Its current popularity stems from the many different ways in which the equipment may be set up as well as the variety of activities which may be performed on it.

One does not usually associate climbing equipment with the physically handicapped. However, the same characteristics that make the stegel valuable for the normal child make it even more valuable for those who are handicapped. Initially it can provide an opportunity for movement for children who are restricted by their handicaps and by people who are afraid to let them participate in physical activity for fear of further damage through accident. Though the potential for accident does exist, it is greatly overweighed by the benefits such activity can provide. Through this movement many other integrities can develop. Muscular strength, coordination, balance, and agility may all be improved. Concepts of body image, spatial awareness, and laterality can be developed and the self-confidence acquired through accomplishment can enhance emotional growth. Performing on the stegel may require more effort for the handicapped child but the rewards are well worth it.

There are essentially two ways of approaching activity on the stegel: from the aspect of movement problem solving and from the aspect of formal gymnastics. Each of these is somewhat dependent upon the part of the equipment used. Therefore, each part of the equipment is considered separately here not only in terms of possible activities but also in light of how a handicapped child can perform the activities.

Ladder. Hooked to one horse or a pole it can be used for climbing up and down. A child who can walk, even in braces or on crutches, can walk up the ladder. Children who have weak muscles due to muscular dystrophy, or extreme contracture as in cerebral palsy, can move up the ladder backwards in a sitting position using their hands on the side rails for support. The activity can be varied by not allowing a child to use a particular arm or leg. Suspended between both horses, the ladder can be used for going across either by lying on the stomach and pulling with the arms, crawling, or crawling in and out between the rungs.

Poles. The three poles can be attached to any of the three different levels of the horses. At a variety of settings they can be used for movement problem solving. The child can be asked to go over, under, between, and around various poles. If the problem is set but the child is not told exactly how to do it, he is able to work out a solution at a physical level where he is likely to achieve success. For example, if one pole is set at each of the three levels and the problem is to go over a pole, the child who is usually in a wheelchair can crawl over the low pole while the minimally handicapped child can go over the high pole with a forward roll. Each has solved the problem, each has been successful, and each has had a new movement experience. The problems can be made more challenging if further restrictions on the movement are made by asking that it be done feet first, back to the floor, stomach facing the floor, sidewards, etc.

If two poles are placed parallel to each other at the highest level they can be used as gymnastic parallel bars. Students who have handicaps involving the lower extremities but with intact shoulder girdle functioning can learn many of the regular parallel bar movements.

If one pole is placed at the high level it can be used as a horizontal bar by boys and as a starter bar for beginning uneven parallel bar activities for girls. Many children with minimal handicaps, especially those involving only one lower extremity, can perform quite well in these areas.

Slide. Hooked to either a horse or a pole, the slide provides a great deal of motivation, for children who have to work hard to move around especially enjoy the free, effortless slide down at the end of their work on a problem. It requires no great physical exertion

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and can be done in a variety of different ways—on the stomach, back, side, seat, or knees; head first, feet first, or sideways. The more able child in terms of shoulder strength can be asked to crawl up the slide as part of a strength building problem.

Combined pieces. The poles, ladder, and slide can be arranged in any number of ways. With each new arrangement the child can be asked to get from one side or end of the set-up to the other. He may go any way he wishes at first. If the teacher wishes to make the problem harder, additional requirements can be made in terms of activities to be performed during the trip across. For example, "Go across by going over two poles and under one of the poles," or "Get to the other end by going backwards." The possibilities are endless. Each child can achieve success by solving the problem at his own level of mobility.

The key to success is variety—variety in the arrangement of the equipment and variety in the movement of the child. In addition to the problem solving method as a means of achieving different physical responses, the child can also be blindfolded. This eliminates one sense of feedback and forces the child to rely more heavily on others. Most of the problem solving activities done with the eyes open can be done blindfolded.

With any activity, the following safety precautions should be taken when using a stegel.

1. In setting up the equipment be sure that all the bolts are secure. They will work loose with use and as movable parts are exchanged.

2. Use mats, at least two layers deep under the poles, and one layer under the ladder and at the end of the slide. Children in braces may be less capable of adjusting their bodies to t fall safely, due to the added wei of the braces as well as the weakened or contracted state of the muscles involved. Mats will ensure a safe fall and hence lessen fear of trying again.

3. Use spotting. Encourage the child to accomplish as much on his own as possible. Sometimes this may mean a fall, but children also learn by their mistakes. Spot to make sure it is a safe fall. When in doubt, steady the hips for support. If the child is falling, catch the shoulders to keep him from landing on his head.

4. Let the child move at his own speed. Children with limited experience may need time to think out what they are doing. On the other hand, a frequent occurrence is the enthusiastic child who gets upside down for the first time and lets go. He may need some slowing down next time.

5. Encourage sharing of space. As the children become more capable, several can perform at one time. However, they should be taught to do their own thing without interfering with someone else.

Physically handicapped children can perform on the stegel and can achieve the same benefits in terms of physical mobility and growth in self-esteem through accomplishment that normal children can achieve. However, they need it much more because the possibilities for such achievement are much more limited. Don't let this possibility go to waste; let your physically handicapped children use the stegel.

Photographs on pages 72 and 73 by Tom Vick

THE NEED FOR LEISURE EDUCATION FOR HANDICAPPED CHILDREN AND YOUTH

This is a draft statement prepared by EDITH L. BALL, WILLIAM C. CHASEY, and DONALD E. HAWKINS, Leisure Information Service, and PETER J. VERHOVEN, JR., National Recreation and Park Association. The rationale was developed as a part of USOE/BEH Contract #300-75-0264, "Program for Leisure Time Education for Handicapped Youth (K-12)," awarded to Leisure Information Service, 729 Delaware Ave., S.W., Washington, D. C. 20024. The complete document includes a rationale dealing with education for leisure for the general population, but because that is duplicated in much of the material presented in this special issue, only the second part, containing the rationale for handicapped youth, is presented here. Specific reactions and criticisms to the statement will be appreciated and should be sent to the above address.

Education for leisure contributes to the vitality and richness of the lives of all children and youth. But for handicapped children, leisure education may provide the tools to create a life of involvement and self-directed participation. Some handicapped children and youth will derive their basic satisfactions and sense of accomplishment from the experiences and relationships they have in their many hours of unobligated time. For this group, leisure education may serve as a significant positive intervention into and support of their overall development.

Adverse Influences Upon Leisure Participation

A distinction should be made between handicaps of intrinsic and extrinsic origin. Intrinsic handicaps result from physical, emotional, or mental impairments which limit or hamper the child's ability to carry out or become involved in normal life activities such as education, work, self-care, recreation, and social interaction. Special training, medical treatment, or supportive devices are often required to facilitate the individual's development and elevate his or her functional capacity. Self-concept, an intrinsic factor, is the way in which a child perceives his or her competence, ability to make an impact upon the environment, and worth as a person. A negative self-appraisal creates problems which may have little or no relationship to demonstrated capabilities and/or degrees to which the impairment has been surmounted.

When the factors limiting participation and interaction are found in the environment, handicaps may be said to be extrinsically determined. In spite of skill proficiency, positive self-concept, and functional capacity, a child's leisure participation may be hindered by negative public attitudes, inaccessible facilities and programs, inappropriately designed transportation vehicles, economic constraints, and problematic legal issues. These elements are often subtle and are usually beyond the control of the child.

Overcoming handicaps—whether intrinsically or extrinsically caused—requires involvement and cooperation of the child and those who have direct contact with handicapped children and influence the programs and services provided for them.

Enforced Leisure and the Handicapped Child

Many handicapped persons, especially those with severe disabilities, can be expected to have disproportionately more leisure than others because they have more limited employment opportunities. Even those able to achieve a satisfactory level of leisure competence may find themselves confronted with many unfilled hours because they cannot reach community resources or because they may lack the social skills which accompany many activities and are essential in forming and sustaining friendships and dating relationships.

The problem of enforced leisure is underscored by the statistics provided in a 1975 report of the National Advisory Committee on the Handicapped. The Deputy Commissioner of the Bureau of Education for the Handicapped states that:

> Only 21% of the handicapped children leaving schools in the next four years will be fully employed or go on to college.

Another 40% will be underemployed, and 26% will be unemployed. An additional 10% will require at least a partially sheltered setting and family, and 3% will probably be almost totally dependent.

In light of this profile, there can be little doubt that handicapped children and youth require alternatives to education for work. They must have opportunities to prepare themselves to direct their lives at leisure in a way which brings personal rewards and enables them to contribute to the life of their community.

Traditionally, American education has emphasized the development of work-oriented behaviors and attitudes; education for leisure as an objective of the educational process has been accorded low priority. This narrow perspective resulting in a lack of options to prepare for total living has been a disservice to many persons, but it has been particularly unfair to those who may have limited potential and opportunity to enter the world of work.

Education for leisure may be perceived as an integral component of the educational program, which stimulates the development of varied leisure interests and abilities through curriculum content and associated participatory learning experiences. Incorporation of leisure education concepts and opportunities for exploring activities balances the vocational components of curricula and broadens the scope of instruction. For those with many hours of free time, leisure education offers appropriate preparation for living.

Attitudinal Change

Because they are looked upon as different, handicapped persons are often excluded from the mainstream of American society. Public attitude has attached a stigma to disability and has fostered stereotypic ways of perceiving and relating to this population group. As a result, handicapped persons often form a negative self-concept and develop low expectations of themselves. However, because attitudes are learned, they are subject to change, provided the public gains new information and experiences to stimulate change.

As handicapped individuals demonstrate their autonomy and com-

Reprinted from *Journal of Physical Education and Recreation*, March 1976.

petence during their leisure activities and as they become more comfortable with their nonhandicapped peers, new acceptance and understanding should be evidenced in public attitude. Differences fostered by disability should fade gradually, and commonalities stimulated by mutual interests and human needs should take precedence. Participation in a community setting holds great potential for creating the attitudes which will bridge the gap traditionally separating the handicapped and nonhandicapped populations in normal life activities. And it is through a program of education for leisure that handicapped children and youth will gain the skills and independence to function more effectively in the community.

Leisure as Related to the Education of Handicapped Children and Youth

Education and recreation have a similar goal: to improve the individual's mental, physical, social, and emotional development. Both educators and recreators help individuals assume the lifetime responsibility of directing their own education and recreation involvements. Such community of purpose takes on special significance in light of the increased leisure available and the substantial portion of a person's life span which is devoted to leisure pursuits. The implication for education is that an appropriate curriculum must incorporate preparation for leisure as a means of facilitating life adjustment.

The school must play an important role in providing a comprehensive, long-term program of training to individuals who experience significant deficiencies in one or more areas of human development as a result of their disabilities. Learning how to find enjoyment and meaning during leisure is as important a part of a total educational program as learning how to read, speak, interact socially, and count. A well-conceived leisure education program will provide the preparatory experiences necessary for handicapped children and youth to function with minimum difficulty within the community and to gain maximum benefit from community leisure resources.

A closer alignment between special education and recreation will create additional benefits for the handicapped child. Increased emphasis upon leisure education will create renewed interest in such fields as physical education, art, music, drama, and dance. These areas have distinct therapeutic and educational value and are essential elements of education for leisure. These areas, frequently considered "extra-curricular" by educators, deserve greater recognition for the contributions they can make to life enrichment and to the quality of leisure experiences. It is timely that increased concern for leisure education coincides with a current national movement to expand instructional programs in physical education and arts education for handicapped students.

An emphasis upon leisure within the school program demands a professional involvement which carries over into the total living environment of the child. Increased communication and coordination between education and recreation is a natural outcome, which should encourage teachers, recreators, parents, and other concerned persons to team together to provide more effective and appropriate services to handicapped children and youth.

The prognosis for such a relationship between special education and recreation is good, since both fields appear to be dynamic change agents, as evidenced by their efforts at all levels to expand services for handicapped populations. Educators of handicapped students are in a unique position to be advocates of leisure education; they spend a significant portion of each day in direct contact with their students and are able to intervene at critical points to facilitate development of basic skills, knowledge, and attitudes. Educators may also serve as significant guides to the community and assist the handicapped youth to function within it.

Leisure education need not be a separate subject or content area within the curriculum. Its concepts and goals may be used to formulate the structure and content of the total program and assure adequate provision of opportunities for the development of leisure activity skills. There is a place in all classes and courses for integration of components of a leisure education program. Association of leisure concepts with varied subject matter is one way to demonstrate the interrelatedness of leisure to all aspects of life.

Counseling students about their leisure interests is one component of a leisure education program. This process enables students to identify their interests, discover which activities they wish to pursue, and determine which skills they have and need to develop to achieve success and satisfying participation. They also learn effective ways of forming ties with individuals and groups and strengthen affiliations with family and friends. Leisure counseling assists handicapped children and youth to use community resources and to involve themselves in solitary and home-centered activities. One of the prime goals of the counseling process is to facilitate the application of skills outside the classroom.

Teachers who work with handicapped students can undertake a limited counseling role in their daily contacts. They can apply information known about students' functional levels and potential to the activities which relate to leisure skill and interest development. Teachers can also serve as a link between other counselors and individuals assisting their students.

Implementation of Leisure Education Programs

To implement programs of education for leisure in the nation's schools requires the combined efforts of a variety of professionals and members of the lay public. Each may contribute significantly to the acceptance of leisure activity as a worthy pursuit and the provision of education for leisure as an important function of public education.

The Schools. Educators should play a significant role in establishing leisure education as part of the total curriculum. They need to learn how to be effective in their role as a leisure educator and the ways in which they can assist their students develop a leisure lifestyle which reflects their personality and meets their needs. They should also develop an awareness of the problems

facing handicapped persons as they engage or attempt to engage in community programs. As teachers become more comfortable with their leisure and evolve patterns of participation, they will become more able to motivate others.

Other school personnel should share some of the responsibility for the conduct of a leisure education program. Guidance counselors, school nurses, nutritionists, and psychologists may apply their expertise to resolve problems related to family life, social and dating relationships, and personal care which may adversely affect the child's ability to participate in leisure activities. This group of professionals will require education and training to enable them to understand the benefits of leisure participation to the total development of each handicapped child.

Administrators and policy makers exert a strong influence upon the direction taken by public education. If they are to be advocates of education for leisure they first need to be aware of the value of such a program in the curriculum. Their attitudes about leisure and their understanding of the special needs of handicapped children and youth are critical determinants of successful implementation of education for leisure in the schools.

The current trend in education is to integrate (mainstream) handicapped children and youth into regular classes. A similar trend, deinstitutionalization, moves handicapped children and youth from institutions to community settings. Both efforts attempt to normalize the life style and experiences of handicapped children and youth and assist them to function more effectively within programs provided to nonhandicapped persons.

Both trends have implications for the ways in which leisure education is implemented in the schools and support the value of establishing such a program in the school system. Leisure education programs offered in regular classes must be structured and conducted in ways which take into account the handicapped student's special needs and enhance his or her ability to utilize community resources. If leisure education programs are offered to nonhandicapped children, the same options should be provided for those in special education classes. And, as often as possible, participatory activities should bring together both groups of students as a means of breaking down negative attitudes and misconceptions and building up attitudes and interactions which create mutual understanding and acceptance.

Parents. The school system can assist children and youth to learn skills, develop interests, and form positive patterns of participation. However, parental support of leisure behavior is essential if the child is to have continuing opportunities to use and develop newly acquired skills. Parents need information about community resources and how the family can reinforce positive attitudes about leisure. They also require awareness and skills to enable them to become involved with school programs.

The Community. Mobilization and coordination of community leisure programs and services are important from the standpoint of information dissemination and provision of opportunities for participation by handicapped children and youth. Business and community agencies have mobilized to provide employment opportunities for handicapped individuals; they must now work to accommodate this group in satisfying leisure activities. To accomplish these tasks requires cooperation of transportation specialists, architects, planners, landscape designers, and building contractors; involvement of media and human service personnel is also critical.

Legislation. The "Education for All Handicapped Act of 1975" (P.L. 94-142) may provide the impetus for educating teachers, administrators, and others about the concept and value of leisure education and for creating leisure education programs for handicapped children and youth. The purpose of the Act is to ". . . assure that all handicapped children have available to them a free appropriate public education which emphasizes special education and related services designed to meet their unique needs . . ." Recreation is included as a supportive service within the category of "related services." Further, the legislation indicates that services offered to nonhandicapped children must be available to those with handicaps. Certain services are mandated for state implementation with federal monies.

That recreation is specifically mentioned is an indication of the importance of recreation as a concern of the public school system in the education of handicapped children and youth. Because leisure education includes a recreation focus, there is now a significant legal base upon which to build a leisure education program into the public school curriculum. And because educators may require training and assistance to implement the legislation, a closer partnership between the recreation profession and the educational system appears desirable.

Toward Leisure Opportunities for All Handicapped Children and Youth

Successful initiation and conduct of leisure education programs for handicapped children and youth is dependent upon positive attitudes toward leisure as a worthy pursuit and sensitivity to the special needs of this population group. Because of the common goals held by educators and recreators and the varied ways in which they can coordinate their programs and pool their resources to facilitate human growth and development, it would seem logical that they join together as advocates of education for leisure.

Society, as well as the individual, benefits from programs designed to enhance human growth and development and enable each person to assume a productive and contributory role within the community. In light of the American concern for equal opportunity and the right of the individual to the pursuit of happiness, provision of education for leisure as an integral part of the total educational program for handicapped children and youth appears to be an appropriate and necessary endeavor.

Instructional Ideas

DANCE AND MEN PHYSICAL EDUCATORS

Sal E. Abitanta is elementary physical education consultant for the New Jersey State Department of Education.

Dance that can emerge from classroom experiences is plentiful, as illustrated by the Doze and the other vignettes in this feature. Correlating classroom happenings into meaningful dance experiences can be done with work on transportation, migration of birds, community helpers, hats, World Series, weather and seasons, Olympics, folklore, states and counties—indeed, with any unit of study.

Dance as a correlative activity is one thing, but to make dance a vital part of physical education and the total curriculum is another. We need the courage to begin taking a hard look at the things held sacred in physical education programs. We will agree that working with children in physical education can be a relatively easy task, if we perform in the traditional American sports-oriented program, beginning as early as possible to ready another generation for sports, and repeating the same program year in and year out. But can we justify physical education by developing for later athletics several highly skilled children in each class of 25 to 30? Can we continue to convince administrators of the need for more time for physical education when we are not reaching all children?

We need to demonstrate what a truly meaningful physical education program should be and the important part dance contributes to the overall program. Men teachers can no longer say that "boys hate dance." Do they really hate dance or shall we restate the question, "Who is it who hates dance?"

Reprinted from *Journal of Health, Physical Education, Recreation*, October 1971.

As physical educators, we need to do some in-depth soul-searching. Possibly one reason why we have avoided dance is that we have never been exposed to the powerful masculine, virile kinds of dance. We are still embued with the 19th century approach and refuse to put dance in its proper perspective for boys.

We men teachers have long been embarrassed by our lack of skill. Much of our dance exposure was a poor experience which did not appeal to our male image and, as a result, we have embraced the idea of nurturing the athlete, leaving no time for movement-related activities. We can no longer continue to believe that all expressive experiences in movement belong strictly in the women's sphere. It is important for us to revitalize our dance background and convince administrators that the only reason dance has been primarily taught by the women was because we men had failed to properly prepare ourselves.

It is important that we re-acquaint ourselves with children and study what it means to have dance experience threading through all physical education activities (K-12th grade). Dance is body talk—a means of communication and of creative expression for one's feelings for his fellow man and his way of life; it provides enjoyment and sensuous pleasure, a means to emotional release, a healthy form of exercise; it develops control, poise, and balance and affords numerous opportunities to respond to music through movement.

Be courageous. Give boys meaningful dance experiences.

OPEN UP!

HOWARD E. BLAKE is professor of elementary education, Temple University, Philadelphia, Pennsylvania, and consultant to the Ridley School District. JOSEPH G. FLEISCHUT is head of the Elementary Health and Physical Education Department for the Ridley School District, Folsom, Pennsylvania 19033. RICHARD J. WESTERVELT is a health and physical education teacher in the Ridley School District.

Like many school districts throughout the nation, the Ridley School District has sought a means for improving its educational program in terms of current curriculum developments. After a period of in-service education for teachers, its elementary schools are now using learning centers for a portion of the school day for introducing, practicing, and reinforcing skills and concepts in all subject areas.

The Ridley Elementary Health and Physical Education Department studied ways in which it might use the learning center approach. It was discovered that through careful, creative planning, elementary physical education programs could help augment the success of the open classroom. Many aspects of "traditional" physical education programs—such as physical activity, skill development, cooperation, progressive challenge, healthy competition, fun, and an informal instructional atmosphere—easily lend themselves to the learning center concept.

The Department has been able to act as resource personnel for the classroom teacher and thus extend the physical education program by placing in the classroom learning centers that lend enrichment to the overall program as well as aid in remediation of specific problems. Enrichment learning centers use a physical activity or games to promote learning in specific subject areas. An example of this is a math center which takes the form of a simple bean bag toss game for primary children, which makes it necessary for participants to record and compute humerical scores.

Reprinted from *Journal of Physical Education and Recreation*, April 1975.

Remedial learning centers are designed to remediate specific physical limitations, weaknesses, and deficiencies. An example of this is a balance beam center which enables a student with a balance deficiency to practice balancing skills within his own classroom. This approach has been used to remediate problems in the areas of perceptual skills and movement education.

In addition to the learning centers that have been placed in regular elementary classrooms, elementary health and physical education teachers have begun to use the principles of the open classroom in their basic elementary health and physical education service program. Many existing primary and intermediate physical education unit plans have been restructured to best facilitate the philosophies of the open classroom.

For example, in an open gymnastics unit for intermediate students, all the facilities are open to all students in the class all the time. Each piece of equipment is treated as an individual learning center. A list of skills to be performed at each area is posted. There are also drawings or pictures of each skill for reinforcement. All the skills and skill progressions are shown and explained to the entire class, after which the students are free to participate at any of the areas. The only restrictions are:

Kindergarten children at Woodlyn School work together at a balance center in their classroom.

1. Students may perform only the listed skills.
2. Potentially hazardous activities (marked on the list with a red star) are to be performed only with supervision.
3. Students must be engaged in an activity at all times during the period.

The learning areas vary from school to school but their organizational concepts remain constant.

The advantages of the open concept in gymnastics have been:

1. All students can progress at their own speed.
2. All students can derive a measure of success.
3. All students can be active all the time.
4. A wide variety of skills can be accommodated.
5. The teacher is free to work with all students at their own level.
6. The program is low-key and competition is kept at a minimum.
7. Superior students can be directed to work with less able students, thus fostering a sense of appreciation of individual differences and likenesses.

Converting physical education programs to open classroom techniques must be a carefully planned process. Racing into these techniques could lead to utter chaos. The Ridley experience indicates that in-service education should be used to familiarize teachers with the basic philosophies of the open gymnasium before starting it. Teachers must feel comfortable with it and want to teach in this way for it to be rewarding and successful.

Teachers must recognize this pupil-centered approach as an attitude rather than a system alone. Without this attitude, teachers cannot commit themselves to the superiority of this form of education or facilitate it effectively in their schools.

Health and physical educators can use the relaxed, informal relationship they and their students have often enjoyed to form the foundation of a limitless variety of open classroom activities. These activities will enable them to begin modification of the service program as well as to reach out to the classroom and offer programs of a remedial and enrichment nature.

SCIENCE AS A POINT OF DEPARTURE FOR DANCE

Loretta Blank is a third grade teacher at the Lakeview School, Colonial Heights, Virginia.

The children I teach particularly enjoy our learning experiences in the area of science. In the beginning warm days of school, they were keenly interested in insects. All sorts of insects were being bottled and brought to my classroom. So began our study of insects. Books were gathered, and as quickly as one child finished with a book, another would pick it up. We discovered many interesting things, like watching crickets rubbing their wings together to make their chirping song.

How do you go about bringing a unit so full of enthusiasm to a close? We wrote our own song about bees, crickets, ants, caterpillars, flies, and mosquitos and then made a dance about them.

Before we realized what had happened, the room was alive with thirty insects of many types and sizes. They crawled, leaped, jumped, wiggled, humped, and made insect sounds. One group of children danced the complete metamorphosis of caterpillar to butterfly. Another group rubbed their wings together to sing. Becoming insects of all kinds, the children illustrated, in the best test possible, their knowledge of the insect world.

Insects, insects all around—
You'll find them everywhere in town!
Creepy insects! Crawling insects!
Some are mighty small insects!
Insects! Insects!

Bees, bees, small, small bees—
Making honey in the trees.

Crickets, crickets hear them sing—
In the summer and the spring.

Ants are crawling, never still,
Watch them working in their hill.

Caterpillar, don't cry, don't cry—
Spin your cocoon, be a butterfly.

Fly, fly, dirty fly—
Such a pest! Oh, my! Oh, my!

ZZZ-ZZZ in my ear—
That mosquito has no fear.

Insects, insects all around—
You'll find them everywhere in town!
Creepy insects! Crawling insects!
Some are mighty small insects!
Insects! Insects!

In experiences such as these, learning involves more than books and words. It involves the child's life and interest as a source, his mind for thinking, his voice for verbalization (stories, poems, songs), his hand for writing, and his whole body for a deeper understanding through creative rhythmic movement and dance.

Motivation for another dance study was a tornado which destroyed buildings in a nearby area. This brought about a discussion of the puzzling aspects of nature, and the following poem resulted.

Nature's Contrast

The wind is bad, it destroys.
The wind is good, it cools and it dries.
Rain is bad, it floods the land.
Rain is good, it helps plants grow.
The sun is bad, it parches the earth.
The sun is good, without it our earth would be void.
In the world of nature there are things bad and good.

The poem was a point of departure for making a dance showing the contrasts in nature through group movement.

Reprinted from *Journal of Health, Physical Education, Recreation*, October 1971.

The following teaching ideas from the Cincinnati Public Schools were collected and submitted by Rudolph L. Memmel, instructional consultant in health and physical education at the Cincinnati Public Schools, Education Center, 230 E. Ninth Street, Cincinnati, Ohio 45202.

JUNGLE TIME AT WESTWOOD SCHOOL

JACK L. BOCKHOLT teaches at Westwood Elementary School, 2981 Montana Avenue, Cincinnati, Ohio 45211.

The "Jungle" is an adapted version of a World War II obstacle training course for conditioning the youth of our country. Combined with modern day alterations and vivid imagination, it is the one experience most remembered by elementary age pupils long after they have become adults and parents. Often the first question asked by visiting former pupils is, "Do you have the Jungle?"

The Jungle gives the student an opportunity to improve agility and balance in a fun and imaginative way to use the entire muscular system. It's a real workout, but fun!

The gymnasium is transformed into a tropical jungle with a path to follow through the obstacles. Every piece of equipment is in use. Children make stuffed dummies, palm trees, signs, trail markers, etc. Names are given to the various obstacles to enhance the imagination.

The object is to travel on the path through the Jungle, conquering every obstacle in your way. The class is divided into groups of six to eight and given names of expeditions. These groups are then sent on the trail with spaces between teams. Each member of the team may help teammates conquer each obstacle. The team having the fewest unconquered obstacles is the winner.

Vine Swing—Climbing pole swing from height of a buck, side horse, or parallel bar. Have three adjustable heights to choose from.

Volcano or Mountain—Oblique ladder covered with a 24' tumbling mat draped over and tied underneath. Run up oblique ladder and climb down back side of vertical ladder. Raise angle of oblique ladder each gym period. Followed by the pole or vine swing this is a good activity.

Ant Hill—High 6' horizontal bar with 18' tumbling mat draped over. Scale and climb over. Raise height of hill each gym period.

Tiger Pit—Hand travel across rings with mats underneath. Rings can be tied to a 2" diameter pipe suspended from several rings if need be. Raise rings; jump high from floor.

Spider Web—Use a cargo net to climb over the top or through certain squares.

Cannibal Caves—Secure large cardboard drums. Cut out bottoms and place end to end. Nail on a 2" x 6' plank to hold drums in place. Place unit on top of bucks on side horse. Crawl through or use large truck size innertubes tied together; crawl through center hole.

Snake Pit—Horizontal ladder or monkey bars. Travel across with hands on beams or rungs. Mats under with stuffed snakes or rubber snakes, etc.

Swinging Bridge—use a 10' to 12' 2" diameter iron pole suspended by two swinging rings approximately 30" off floor. Attach an overhead guide rope for support balance. Walk across.

Cave Entrance—Hang old tires from horizontal bar for crawl through.

Trail Markers—Bowling pins make excellent trail markers.

Westwood Elementary School's Jungle

Reprinted from *Journal of Physical Education and Recreation*, October 1975.

how we teach it

BALANCE CHALLENGES

CRAIG CUNNINGHAM is supervisor of physical education, University Elementary School, Graduate School of Education, University of California, Los Angeles, 90024.

In today's society, children often do not have the opportunity of being challenged with a key developmental concept, balance. It is difficult for the child to practice balance skills such as roller skating, bicycling, and stilt walking. Gone are the wooden fences which in the past afforded children the challenge of walking on bases of support.

With this loss, some children become "balance deprived" and to offset this deficit, the University Elementary School at UCLA, the state laboratory school in California, began to investigate the possibility of moving or dynamic balance at all levels of the curriculum. Children at the school range in age from 3 to 12 years, and so the challenges had to encompass a full range of balance possibilities that contained sequential challenges for children. It was decided that roller skating would be an appropriate skill for early childhood (3-6 years old), stilts would be good for 6-8 year old children, and unicycle riding would be a logical choice for 9-12 year olds.

Because the 3-6 year old children needed a great deal of positive success, it was decided to start the skaters on grass to provide the necessary resistance and a cushion for emergency landings. Children move from grass to a coarse asphalt and then to a smooth sidewalk in front of the school so surfaces became a variable for programing individual skill levels. Skill record cards are kept for each child, which aided in following individual progress.

Challenges include the following:

1. Skate 25' on grass with proper weight transfer.
2. Repeat on coarse asphalt.
3. Repeat on smooth cement.
4. Skate fast for 50'.
5. Skate slow for 50'.
6. Glide in squatting position for 20' on horizontal level.
7. Glide down 50' sloping hill.
8. Skate around ten 12" cones placed three feet apart.

One day during each of the weeks of the six-week total block, the children check off as many skills as they are able to do. In this way, the child is continually challenged in sequential fashion and has knowledge of results. The skill card provides an on-going record for parent conferences.

The children often have their shoe skates but the school provides toe clamp skates as the basic equipment. Children can take skates home, and this provides an opportunity to practice at other times.

Some of the 6-8 year old children are given the opportunity to make their own stilts, and some commercial stilts are also purchased. Since the concept of success in initial trials is important, grass was again chosen for its better base stability. Children work first with low bases (6" from the ground), and work their way to higher bases of 12"-16".

Many children have learned about the concept of balance by walking wooden fences. The child whose neighborhood lacks such challenges may be "balance deprived."

Milwaukee Public Schools photo

Reprinted from *Journal of Physical Education and Recreation*, March 1975.

out for the fence for support again. Once students are able to ride along the fence, they are encouraged to ride out on their own and attempt to reach a 25' distance. Once this distance is mastered, the student attempts even greater distances. Self starts; turns in both directions; riding up and down ramps, between objects in a slalom course, on teeter-totters; and riding backwards are all skills eagerly worked on.

For team play, unicycle hockey and basketball are used along with other activities such as unicycle derby, unicycle Olympics, folk dances, and creative routines. Skill cards are used to help motivation and enhance record keeping.

The students are encouraged to ride as much as possible during the school day. Some children have been so motivated about this particular unit that they work to earn money to buy their own unicycles or ask for them as birthday and Christmas gifts. They bring their own unicycles to school, and some children ride to school carrying school books.

Reprinted from *Journal of Physical Education and Recreation*, April 1975.

STATION TEACHING

ANN E. DAVIS teaches in South Glen Falls, New York 12801.

The station method of teaching frees the teacher to be a guide, a motivator, a critic, and a friend. In this approach, teachers can get to know students and direct the learning experiences as needed. Students can practice at their own levels of ability, free from the pressure of measuring up to more advanced students.

The station method incorporates the use of learning centers. It involves several activities to be performed in one class period, all built around one central theme. It is best described in four parts: the theme, the station, the station card, and the group organization.

The *theme* is the basic objective for station lessons. All activities used contribute to the development of the theme which can be general (accuracy) or more specific (overhand throwing) depending on the objective of the lesson.

The *station* is the activity to be performed and the area it is performed in. A specific space is designated as the station area and the activity is clearly defined. Several stations are used in one lesson to develop the selected theme.

The *station card* explains the activity and the procedure for that station. The card consists of a brief written explanation and an illustration.

The *organization* of those participating in station lessons provides for a smooth and efficient flow of traffic from one station area to another. This can be accomplished by forming groups of students who travel together from station to station throughout the class period. The number of stations determines the number of groups, as well as the amount of time each group may spend at each activity.

Planning for the use of the station mandates an efficient organization of objectives, skills to be learned, and evaluation of progress.

Preparation begins with determining the theme or objective. When the station method is used within an established unit, the unit in progress provides the theme. It is also possible to use the station method to develop certain general skills or concepts. Once the theme is established, the skills needed to achieve the objective should be listed. Activities are then designed to contribute to skill development. These activities make up the various stations or activity areas.

Activities to be used have few limitations. They can be individual, partner, or small group tasks designed for competition with one another or oneself, or with no competition at all.

Procedures

Children must learn to operate with the patterns of groups traveling from area to area. The number of stations in the actual lesson determines the number of student groups and the amount of time each group can spend at each activity. At the end of the specified period, groups rotate to a new station. The lesson continues in this fashion until each group has been to each station (there should be enough time left in the period to share class comments about the activities).

At the start of the class, a brief explanation of the theme and of each station is given. When the students begin, the teacher circulates among the various stations giving help where needed. The independent learner is free to work on his own; the more dependent learner has an opportunity for individual instruction.

In introducing a new skill the teacher might remain at the station that uses the specific skill. Since each group passes through the activity, the teacher has the time to observe each child's performance and give individual attention to each learner.

Theme Ideas

Themes around which station lessons can be designed are divided into four basic categories: basic skills, developmental movement, sport skills, and open-ended themes.

Basic skill themes involve such things as ball handling, hand apparatus activities, development of accuracy, and any of those skills needed to develop more advanced participation in games and sports.

Themes of sport skills are designed for the sport to be learned and the stations are the specific skills needed in the sport. Stations like this provide a useful alternative to learning sport skills through traditional drills.

Developmental movement themes include balance, strength, coordination, agility, and flexibility activities. Stations developed around this theme provide an excellent means of teaching the importance of these skills in developing the body for greater involvement in sports.

Open-ended themes are a time for experimentation and development of new and varied patterns of movement. This type of theme involves leaving the interpretation of the station to the student, even leaving the making of the station to the student. All children, especially the very young, need time to develop a framework of reference for their bodies and their movement. They need time to experiment with their physical selves, explore their capabilities, develop an awareness of the possibilities of movement. Open-ended themes are constructed through unusual combinations of equipment or tasks. The station card is written leaving the interpretation to the student. The teacher must work to help children develop their own solutions to the tasks, not impose preconceived solutions on the child.

Station Activities

The following is a sampling of various station activities which would be written as station cards, organized under various themes. Activities from one area may be used in other areas as well, depending on the objective of the lesson.

Skill Themes

Catching—throw the ball to the wall. Can you catch it with the scoop?

Striking—bounce the ball, then hit it to the wall with your hand. Can you hit it four times in a row?

Kicking—stand at the line taped to the floor. Try to kick the ball between the cones.

Sport Skill Themes

Basketball—dribble the ball in and out of the cones, alternate hands.

Soccer—kick the ball to the wa Stop it with your knee when it comes back to you. Try your foot.

Developmental Movement Themes

Balance—walk along the line taped to the floor, try not to fall off. Can you do it backwards?

Agility—have a friend throw three balls at you. Can you dodge each one?

Open-ended Themes

Can you twirl the hoop around three different parts of your body?

Using the equipment that is here, make up a game that has 2 rules.

Alternatives

Alternatives for organizing station lessons include changing the organization of both the group and the material.

The traveling group may be eliminated in favor of students going individually or with partners to the various activities. Once students have learned to operate in a station lesson, they can travel at their own pace, practicing skills that need more work for longer periods of time. The key idea to mention is that of sharing the activity with others who wish to try it. Emphasize that each individual must travel to each station, but the amount of time spent is determined by the amount of practice needed. Encourage students to plan their time wisely.

Score sheets provide an interesting variation. Individuals or groups receive a score sheet and travel to each activity, recording the score of each member or of the group. Each station card explains the activity and lists the number of tries allowed. A certain number of points is given for each successful attempt. This lesson can be repeated after a practice time, giving an opportunity to improve scores.

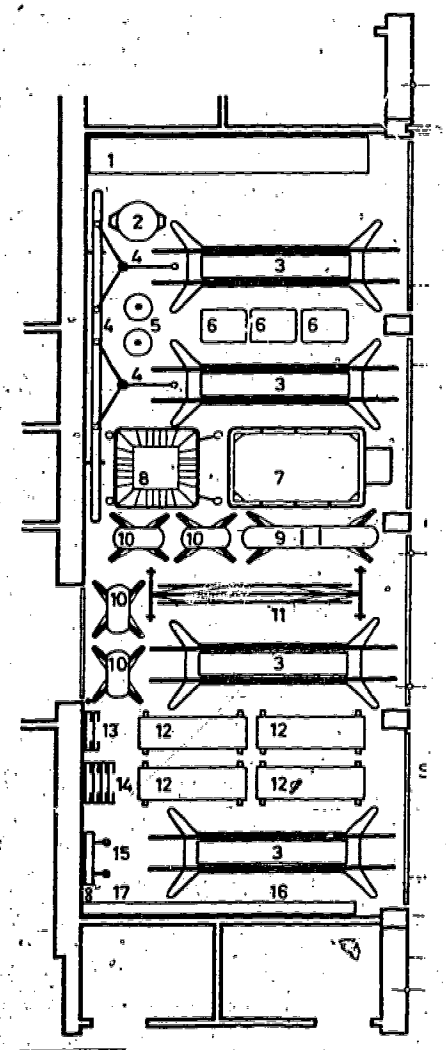
The station method of teaching allows freedom of movement and freedom of expression while developing basic skills. It allows ample time for individual instruction, personal communication between teacher and student, and the opportunity for self-paced learning of a skill. The station method of instruction is an easily adaptable method of instruction, used within previously established units or as a unit itself. □

Ideas from Germany

MODERN APPARATUS

for elementary school physical education

LISELOTT DIEM



Reprinted from *Journal of Health, Physical Education, Recreation*, March 1970.

While in the United States I learned much, but there is one thing I do not understand in your world of technical progress: Why haven't you developed new equipment for your gymnasiums?

Apparatus should be so easy to handle that even a child of six years is able to move a bar or a box. It should be possible to set up the apparatus and take it down in a few minutes. It should be possible to have a gymnasium very well equipped with a lot of apparatus at one moment and then some minutes later be able to have a good game hall without any apparatus. How can this change be made quickly? Here are some ideas from our school in Germany.

Equipment
Apparatus Outfit for a Normal Gymnastics Hall

1. apparatus closet
2. magnesium container
3. 4 bars
4. 1 beam
5. 1 pair jumping stands
6. 9 small boxes
7. 8 mats (tumbling mats) and wagon
8. 2 small trampolines
9. 1 side horse (vaulting)
10. 4 bucks (vaulting)
11. 1 big trampoline
12. 4 big boxes
13. 2 spring boards (compression spring)
14. 4 spring boards
15. 1 set hand stand bars
16. 4 gymnastic benches and horizontal bar
17. horizontal pole

1. Along the side of each gymnasium we construct a room for equipment; it has movable doors, like in American garages. Each piece of apparatus and its spot in the room are labeled so that children may return them quickly to the right place. The room contains 4 boxes, 2 bars, 4 balancing-round beams, and a carry-on-wagon with about 12-20 mats. There are spots for 6-8 iron bars, for balls, for ropes.

2. In a row down the gymnasium, we have some six small blocks on the floor 2 x 2 inch. When they are lifted up, it is possible to pull out with one finger the bar equipment. These must be provided for during construction of the gym.

3. On both sides, we have a place for rolling in 6 ropes, so you may within a minute have 12 ropes ready for swinging or climbing, perhaps in combination with the boxes—to swing up or over them.

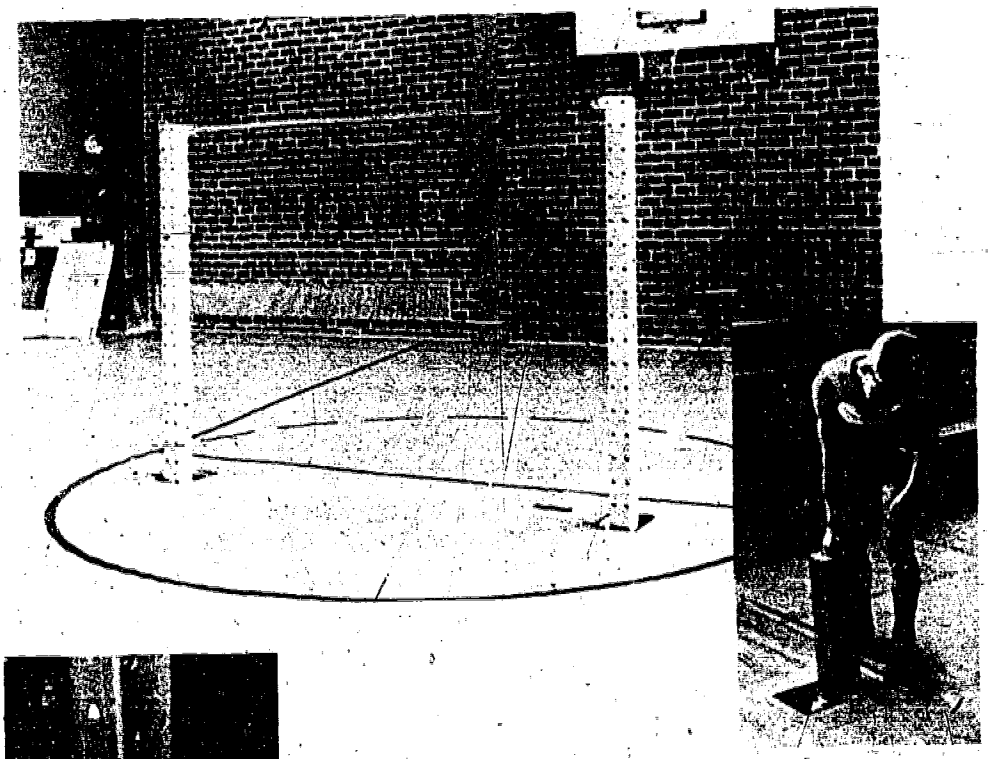
4. German boxes are particularly convenient and economical because each part of the boxes can be used separately, for example, for jumping jacks or for running through or around.
Wheels under the box can be pulled down with one's foot, so it is easy to move.

5. We also use balancing round beams, which children can move. They can be fixed at three different heights for different aged children.

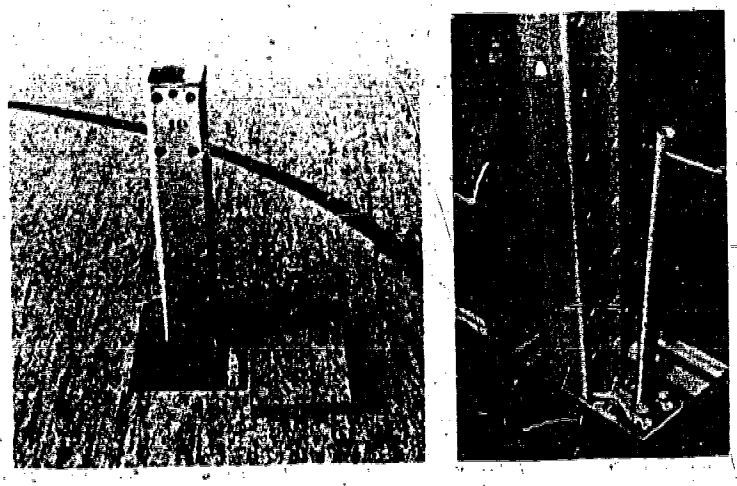
6. European jumping ropes are inexpensive. They also swing better than the American style because they are thicker toward the middle. There are no wooden handles.

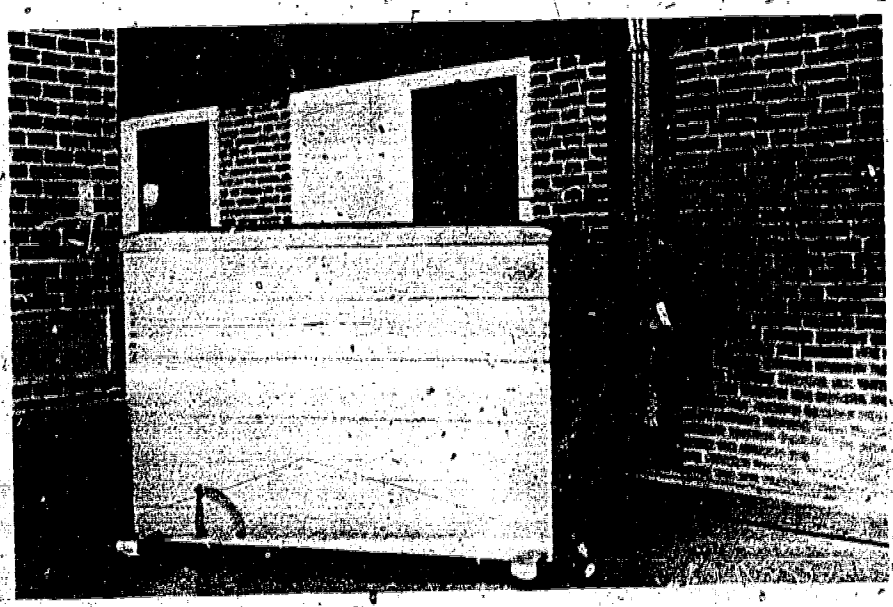
7. Excellent research is presently being done in Germany on swimming pool construction. A recent development is to construct small pools with double floors. The second floor has little holes. It is possible to raise the floor, in three minutes, so there is shallow water for little children and move it down later for adult lessons.

Liselott Diem is professor, at the Deutsche Sporthochschule-Köln, in Cologne, Germany. She has long been active in international organizations, such as ICHPER and IAPESGW, and has recently offered workshops in colleges and universities in the United States.

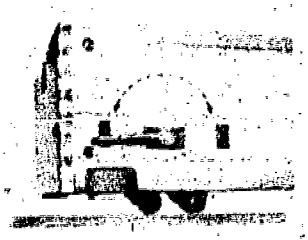


Installations for bar equipment are concealed in the floor until needed. Little strength is required to manipulate them.

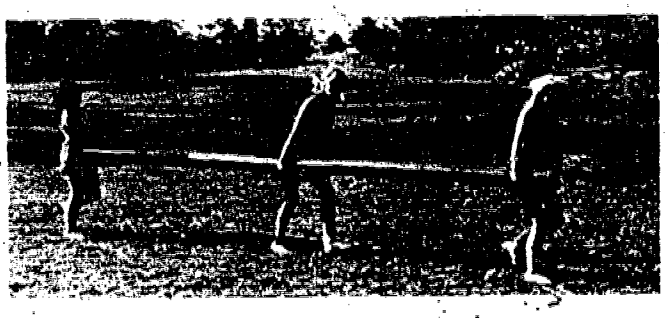




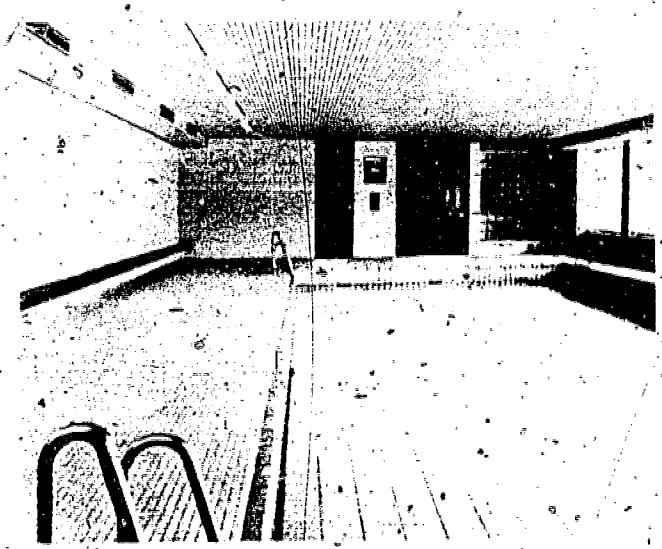
The German box is a versatile piece of apparatus which can be used as a unit or in separate pieces. Wheels make it easy to move into the most advantageous spot. The ropes fastened against the wall move out on a ceiling track.

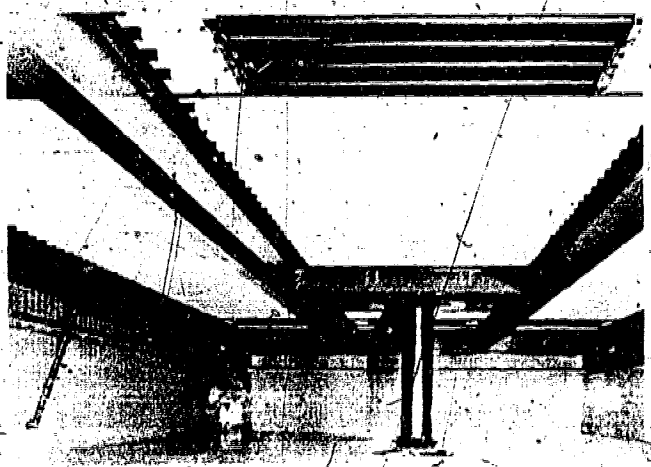


The round beams used in Germany can be handled by children, for use indoors or out.



Jumping ropes are without handles and thicker in the middle to facilitate swinging.





Swimming pools are constructed with two bottoms, one of which may be moved up and down to quickly change the depth of the water for different levels of swimming skills.

CREATRAD: An Approach to Teaching Games

The concepts of movement education can be combined with traditional methods to teach game skills to upper elementary and high school students. Most readers are familiar with the traditional method of skill learning via drills and related practices, but the movement or problem solving approach is either less familiar to middle and secondary school physical education teachers or has not been adopted for use with students who want specific know-how in skill acquisition. The movement education concept of teaching and learning has met with approval in elementary schools mainly because it complements the practice of individualization seen at this level.

Essentially, the movement approach involves a spectrum of teaching styles ranging from direct to indirect with special use of the limitation method,[1] which involves factors that affect the development of movement using the concepts of speed, direction, body shapes, and the use of space. Students explore solutions to problems within the realms of their own capabilities. As they master individual skills, new limitations and challenges are given that follow a sequence as in any other curriculum area. The approach is child centered, rather than technique centered.

The competencies taught in movement education are general movement skills fostered by exposing the student to a wide variety of motor experiences which, in the area of dance and gymnastics, can be extended to upper elementary and secondary students. The movement patterns created are more intricate, show more depth, and can be group oriented. Basically the approach is to continue the refinement of movement skills begun in earlier years.

This is not true of games. In the middle and lower elementary school, teachers who follow the movement education approach[2] deal with the general motor skills of striking, catching, collecting, and carrying as these relate to running, net, and batting games. The object is to present experiences in a variety of game settings in keeping with the developmental needs of children. Students are required to create their own skill and game situations from these general skills. This is quite different from the advice offered by Wickstrom[3] to educators following a more traditional approach. He suggests correct execution of a skill, an early concentration on drills, game-like drills, the use of multiple skills, and the playing of modified games. Unfortunately, there is a possibility that the traditional method, because of the conformity required, does not meet the needs of some of the students, particularly those who are less athletic. Repetition of practices and games, too, can lead to boredom.

Teachers of older students often find the movement education approach too general—lacking skill specificity, not offering enough challenge, time consuming, and not preparing students to meet standards of North American cultural games.

The dilemma, then, is the gap between these two approaches. While the literal application of the movement approach for older students is inappropriate, the concept and philosophy are sound. The traditional games approach, on the other hand, can offer technique, practice, and challenge. The Creatrad approach is an attempt to fill in the gap and to apply present education philosophy of optimum development of each student. It is a blend of creative movement education and traditional principles and practices, hence the term "Creatrad."

The objectives of the Creatrad system are: (1) maximum participant involvement; (2) situations where each student can learn by trial and error; (3) practice of skills at the student's own performance level; (4) progress based on the student's own competence level; (5) game situations which involve the less skillful as well as the skillful; (6) development of individual initiative decision making and creative processes; (7) presentation of skill learning in an effective and enjoyable way; (8) variety and mental challenge; (9) development of interest through cooperation and competition; (10) better use of equipment and playing areas; (11) transfer of concepts between sports; and (12) freedom and control. These comply with the psychomotor taxonomy described by Jewett.[4]

The Creatrad Method

In this method a skill is developed and briefly practiced using the specific, direct form of teaching. The usual skill techniques are used for both individual and team sports. During the early stages, practice through well conceived and executed drills is included. Once a movement vocabulary pertinent to the skills being learned has been established, the next step is to refine it in an enjoyable and effective manner. Movement limitations are imposed for performing the newly acquired skills. The teacher ensures that responses are appropriate for the specific problem that is posed. The solution is usually sought by developing creative games.

By changing the limitations the student is forced to apply the skill in a variety of ways, necessitating insight into the skill and minor adaptations to the original movement patterns. However, there is still flexibility within the limitations and the games that are developed will reflect the skill level, maturity, attitude, and aptitude of the students. A complex game with stringent rules demanding a high performance level may be formulated by the facile learner. The less adept learner will use the skills at a less sophisticated level and be less rigid in rules governing the game. In both cases a game will be developed that challenges their skill level, ingenuity, and cooperative ability. Intense practice of the specific skills is brought into realistic and relevant game situations.

There are several ways in which a teacher may impose restrictions on the game to be created by the students.

Specific Skills

Single Skill. The specific skill to be used in the game is the most critical limitation. The instructor may select any single recognized skill such as the bump, set, and spike in volleyball; the dribble, lay up, and chest pass in basketball; and the pass, tackle, head, and lob in soccer.

Multi-Skills. As more and more skills are taught within a particular sport, the limitations set by the teacher may permit inclusion of two or more

DAVID I DOCHERTY and LES PEAKE are assistant professors on the Faculty of Education, University of Victoria, P.O. Box 1700, Victoria, British Columbia, Canada V8W 2Y2.

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skills. The games created by the students will become more complex, and may, or may not, be increasingly similar to traditional sport.

Multiple Skills. Once several skills have been developed in two or more sports the limitations imposed by the teacher may permit inclusion of two skills from different sports—for example, a bump from volleyball and a head from soccer. Limitations should be selected carefully since the specific nature of skill learning may result in some negative transfer (for example, heading a volleyball is different from heading a soccer ball). However, it can provide a change of pace and fascinating results.

The Playing Area

The playing area can be restricted in size or shape and can impose important limitations on the game that can be developed. In general, the early stages of skill acquisition require substantial space since movement and equipment are not under control. However, by careful use of limitations of space, the skill execution can be made progressively more difficult. In addition, the use of levels can be introduced and movement restricted to low, medium, or high areas. The actual directions and floor patterns described by the students can also be restricted. By careful imposition of the use of space on the movement response, the skill can be executed in a variety of settings.

Rules

Rules developed within a game obviously restrict and govern the application of skills. The degree of competition can vary, depending upon the skill level and desires of the participants. Highly skilled and aggressive students may construct a very competitive game that may include physical contact. Others may prefer passive opposition or impose rules that restrict physical contact. The game may not require competition but necessitate cooperation within the group to be successful.

Scoring is another aspect of the game that leaves considerable scope for inventiveness. Students may set a variety of requirements for scoring, such as arriving at prearranged target areas, completing a specified number of passes, or maintaining possession of the ball for a set time period. The same game may involve several methods of scoring.

Rules in the games can be extensive but are free to be changed, selected, or modified by each group and, we hope, will reflect their skill and mental aptitude. The most successful games may not be produced by the most physically skilled but by those with initiative and creative ability.

Number of Players Per Group

In the early stages of skill acquisition the practice is most intensive when the groups are small and equal in performance level. Students will usually group themselves homogeneously. Games can be developed with one player per group, provided there is sufficient equipment. Two players per group can provide an intensive practice of the skills and a game can be created within a short period of time. To maintain homogeneous grouping, maximum skill practice, maximum individual involvement, and a productive group size, the group should not exceed eight people.

Teams need not be equal in number. It is often desirable, in the early learning stages, to create a number advantage on one team as long as all members in the group have an opportunity to be on the larger side. Most game situations are based on the principle of creating the "extra-man." When teams are numerically equal, creating an extra player demands some game sophistication and reasonable degree of skill performance. The principle of the extra man can be introduced and appreciated when it exists in a prearranged form. "Pig in the Middle" is, perhaps, the simplest example of unequal teams. The teacher should ensure that students organize some method of involving all students and rotating players on an equal time basis.

Apparatus

The type and amount of apparatus provides a useful self-imposed limitation on the game that can be developed. Traditional equipment, such as nets, basketball hoops, and soccer goals, limit the number of people that can participate since such equipment is seldom available in large numbers. However, games can be developed within the confines of non-traditional apparatus such as cones, ropes, hoops, high jump stands and bars, benches, chairs, and walls. Such equipment forces the students to adapt the skill to a variety of situations in the game. Performing the skill using apparatus promotes a broad application of the skill and, perhaps, slight adaptations to the original pattern.

Other than the basic equipment, like a bat or ball, games can be effectively developed without the use of artificial apparatus that limits the movement response. Apparatus from one sporting area can be used for the development of a skill from a different area. For instance, basketball hoops can be used as targets for volleyball and soccer skills.

Decision Making Process

The decision making process certainly affects the games that can be developed. Decisions about the game can be made in several different ways:

During the initial experiences the teacher normally makes certain decisions (for example, the number of players per group, the spatial areas to be used, and the apparatus to be used in a given setting). In light of the response from the class or students, the teacher can modify the initial limitations or offer suggestions to help the group respond to the movement setting.

2. The teacher can make the initial limitations or decisions and the students may modify these limitations as they see fit. They may require more space or change the apparatus arrangement they are using.

3. Initial decisions can be the responsibility of the students and modified by the teacher.

4. Students can both select the initial limitations for the game and make their own modifications as they desire.

5. A game can be developed by a group of students and tried by all the other groups. The sharing of ideas is another aspect of the approach and should be encouraged. Aspects of each other's games can be incorporated as the students desire.

The teacher has a dual role to perform during the experimentation and execution of the games. Correct skill execution is paramount and errors should be detected and corrected early. However, perfect execution may be neither desirable nor feasible. The teacher must decide whether or not the error detracts from the result or future skill development.

The second role of the teacher is to maintain the challenge of the game by offering suggestions and at the same time be sure the game is being played within the appropriate limitations. The teacher can ensure the progress of the skill by enforcing adherence to the limitations and frequently changing (or providing opportunity to change) the frames of reference. Then games can be increased in complexity.

Class Organization

The class can be structured for the development of the students' games in four ways:

1. Present all students with the same equipment and/or apparatus and, therefore, the same basic limitations.

2. Set up stations with different facilities. The limitations will vary according to the station. Students are directed to specific stations and rotated to a new station after appropriate time periods.

3. Stations can be set up with different facilities, then students can select the station they wish to work at. Groups rotate at will. Such an organizational

setting is most appropriate for an experienced class.

4. The apparatus can be made available en masse and students can choose pieces to use as a limitation on the game they create. Some control can be exerted by the teacher through the type and extent of equipment available.

Invention of new skills

The teacher can occasionally provide opportunity for the invention of new skills for old games or new skills for new games. Such an approach provides mental and physical diversion and may produce interesting results. Techniques for games and sports are frequently changed and new techniques occasionally invented.

Using Creatrad

At all times student and teacher decisions should take into account that game satisfaction can occur only when there is maximum participation and the opportunity to practice and refine specific skills.

Creatrad offers an eclectic approach to teaching that could be used as an alternative, supplementary, or even complete system for teaching games skills in schools. Ideally, teachers will develop a program that includes "creative games" as suggested here, minor games, modified games, and the full game in some sequence.

SAMPLE LESSON—Basketball

Objective: To review dribbling and incorporate the skill in games created by the students.

Equipment: One basketball per student if possible (otherwise miscellaneous balls).

Introduction

1. Find a space and bounce the ball around you. Use different degrees of force and change the level at which you are performing so that sometimes you are close to the ground, sometimes far away. (Review the finer points of dribbling technique for control.)

2. Keep changing body positions (from standing to kneeling, lying, rolling) and keep bouncing the ball under control. Change hands.

3. Perform any stunt while bouncing the ball (e.g., touch the ground, turn around, raise leg over) but keep control of the ball.

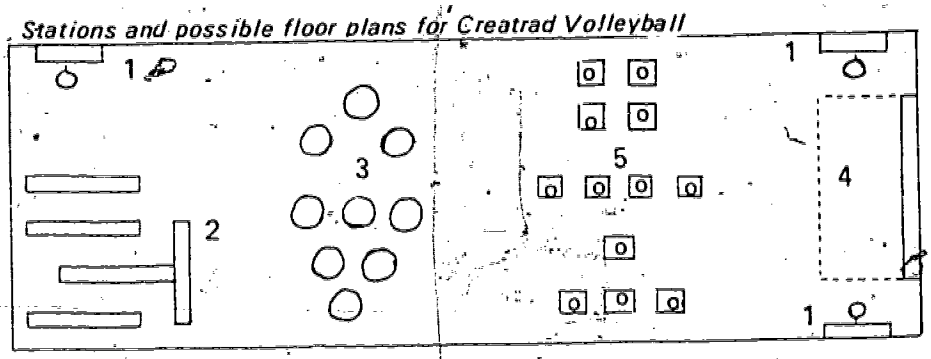
4. Now dribble the ball about the gym but stop where you are when you hear the whistle. Keep equal spaces between everyone, so you need to watch the ball and class members at the same time.

5. Vary the level, force, speed, or pathway of your dribbling, always keeping the ball close and under control. Change hands frequently.

Development

1. Choose a partner and put one ball away. Using the whole gym, dribble the ball but keep it away from your partner. You also need to avoid the other groups.

Stations and possible floor plans for Creatrad Volleyball



Station 1: basketball hoops Station 2: 6 benches Station 3: 9 hoops
Station 4: rebound wall Station 5: 12 cones

Try for one minute, then change roles. Through question and answer and example extract the basic principles of dribbling, e.g., the body stays between the opponent and the ball.

2. Can you devise a game in a limited space using the skill of dribbling? You need to decide on the rules, a set of boundary lines on the gym floor, and a simple scoring system. (Allow 3-5 minutes to develop ideas, then insist on activity.) Let the game progress for 3-4 minutes. If desirable stop and allow interchange of ideas. Students are free to incorporate other people's ideas into their games.

Culmination

1. Divide yourselves into threes (or use any method with which the class is familiar).

2. Use one ball for each group. Develop a game in which the three people are continuously involved. The dribbling skill must be the main part of the game. You again need to decide on the rules, area, scoring system and perhaps a method of rotating the roles in the game. (Allow time for development, practice, and modification. If most games involve a two versus one situation, offer the following guideline.)

3. Can you devise a game that requires all three people to work together on the same team? The skill must be dribbling and the game must foster the skill.

SAMPLE LESSON—Volleyball

For this lesson, the bump and set must have been previously introduced through direct instruction and the individual skills used in creative game situations similar to the lesson example on basketball.

Objective: To combine the set and bump skills into a game created by the students using apparatus in specific stations.

Equipment: A back wall (flat surface). For a class of 24 students there should be about eight volleyballs, nine hoops, six benches, twelve cones, and three basketball hoops.

Introduction

1. Review, through direct techniques, the bump and set shot.

2. Allow practice through relatively static drills with attention devoted to technique. Work in groups of two.

3. Travel with your partner (five yards apart) about the gym using the bump, the set, then both shots. Avoid others. Be aware.

4. Before receiving the ball perform a stunt and play the ball back to your partner who attempts to do the same (e.g., touch the floor with hands, turn around, sit down). You may choose to let the ball bounce once before playing it.

Development

1. There are several stations set up in the gym. You will be sent to one and are asked to devise a game that includes the equipment but is based on the bump and/or set shots.

2. Modify the apparatus arrangement to suit your needs.

3. Devise rules, area, and a scoring system.

4. Your game can be competitive or cooperative.

5. The students are sent to the different stations (approximately six per station and two per apparatus arrangement).

6. The games are devised, practiced, and modified. Allow 5-8 minutes per station. The apparatus arrangement can be changed.

7. The groups are rotated around the various stations (there may be only two rotations in one class).

Culmination

1. Two courts—four teams equal in number.

2. Modified volleyball game (by the teacher).
   a. Can only use the bump and set.
   b. Extend playing area to use all people (may extend beyond regular volleyball court—identify with cones).
   c. Increase number of consecutive hits to 4 or 5 depending upon numbers.
   d. Other modifications to develop skills in all the students and keep the game active. □

FOOTNOTES

[1] Percy Jones, "Educational Gymnastics," *CAHPER Journal* 1961, pp. 26-30.

[2] E. Mauldon and H. B. Redfern, *Games Teaching: A New Approach for the Primary School*, (London: MacDonald and Evans Ltd., 1969.)

[3] R. L. Wickstrom, "In Defense of Drills," *The Physical Educator* 24 (March 1967), p. 39.

[4] A. Jewett et al., "Educational Change Through a Taxonomy for Writing Physical Education Objectives," *Quest* XVI (1971), p. 35.

HELPING CHILDREN DISCOVER DANCE

Gladys Fleming is professor of education, Virginia Commonwealth University, Richmond, Virginia.

Children profit from meaningful dance activities in multiple ways. These values should be cherished and nurtured since dance may well be one of the last frontiers for helping children in nonthreatening ways. It offers opportunities for recognizing self, for belonging, for aesthetic involvement, and for individual achievement. Such potential values are important for all children whether they reside in the ghetto or in suburban communities, in small towns or in large cities. There are broad, basic, and fundamental values to be realized. Those who teach children's dance need to clarify purposes to be served and values to be attained in dance.

Movement is not dance, but *all dance involves movement.* Children must be able to move easily and readily in order to effectively compose dances. They require time to perfect movement skills necessary to make their bodies do what their emotions dictate. Such experiences should be commensurate with what is known about physical and psychological development. Boys and girls become secure in movement as they have opportunities to understand their movement and to analyze movement in terms of how it feels, how it looks, and how to invent combinations of movements. As this happens, they are discovering and fashioning their own individual storehouse of movement.

Movement experiences can be initiated and presented in such a way that children are anxious to respond to new and more complex situations. This involves thinking about movement of the self rather than just about the self and "how I look." Dance that is based on movement is not concerned with developing movement in a vacuum but rather with developing, inventing, and controlling movement simultaneously with thinking, sensing, responding, feeling, and inquiring. It is moving through, with, and in dimensions of space, and moving with various degrees of speed and intensity. It is moving to control and to change oneself at will, going through space with time not because it is good exercise but because there is so much to discover. The development of the imagination is ignited and creativity is uncorked as inventiveness and selection of movement are used abundantly.

For all of this to come about, adults must understand and respect the uniqueness of boys and girls at various stages of growth and recognize that no two children have the same structure, the same make up, the same potential. They must enjoy movement and present endless, progressive, satisfying opportunities for children to explore and invent movement possibilities; and they must offer movement opportunities according to the interest, motivation, and sensory perception of all children within the group.

The teacher is essential in fostering dance for children. He makes it right for children to be themselves and to express themselves through their movement repertoire.

Teachers help to establish ideas that are to be communicated by talking with children, raising questions, providing varied and meaningful movement opportunities, and by helping to clarify that which children themselves want to build into a dance.

Teachers listen and take many leads from students' responses. Children may say, "That was a real dance because we meant it from inside." It is the "inside" which makes dance. *It feels good* and we think it should *look good* because it is *our* dance." Teachers need to assist children rather than try to fashion them in an adult stage. Unfortunately, some adults often show a lack of appreciation for the

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This article consists of excerpts from Dr. Fleming's chapter on "Composition with Children," in *Focus on Dance V—Composition,* published by AAHPER for the Dance Division.

children's concentration on finding ways of moving their bodies. At times these adults try to superimpose on children their own form or system of techniques or patterns of dictated movement. This is not the way to assist children to realize their own potential of quality in movement. Instead, teachers should help children dance what they most want to dance, rather than what adults think they should dance.

The teacher's role as an expediter remains constant. The essential ingredient is for the teacher not to be in a hurry to get involved in the process of composing dances with children before the children have acquired a small repertoire of movement; some awareness of the great phenomenon of space and rhythm and the ability to respond rhythmically; some degree of control of that human communication system flowing continually within; a willingness to invent, to take chances; extensive exploration and the use of many of the explorations in improvisations and dance studies; opportunities to improvise spontaneously, to solve sensory and movement problems, to figure out sequences, to combine elements, to stylize movements; and experiences to portray from the quality called "It."

With students the teacher plans ways of developing dance studies and compositions which emerge naturally from dance songs, movement discoveries, spatial designs, and rhythmic responses. This is quite different from having boys and girls dance out stories or ideas before they have sensory experiences to which they can respond with movement and before they are comfortable with their movement venturing. This is quite different from presenting a dance program in a school, studio, or children's theater just because it is Spring, May Day, Christmas, or because a program is expected rather than because children have completed meaningful compositions which they cherish and want to share.

In the process of helping, teachers need to be continually watchful that children do not take on more than they are capable of handling. It is suggested that teachers make it possible for the composition to grow by helping children clarify what they are trying to say, by keeping the ideas simple, and by helping them build their ideas. Care should be taken to prevent children from becoming overwhelmed with too much at once.

It would be fascinating if we could capture in words the exhilaration and spontaneity of meaningful dance which so often erupts from youngsters saying, "Can we just skip?" Here is movement magic. Here is movement conquerability. Here, too, is dance composition emerging. This happened with a group of third-grade children who translated their "Can we just skip?" into "Our Skipping Dance." This dance had the recognizable elements of composition: various groupings and regroupings of children, interesting spatial patterns they charted graphically so they could more effectively remember the sequence. Variety was achieved not only by the accompaniment to their arrangements of high-and-low and fast-and-slow variations of skip, but also in the quality and styles of skipping. In composing this dance, the children had a strong feeling for unity and for organization. They remarked that they were "really dancing their skips." Before the year was over, this group of children had opportunities to compose many dances on various subjects in solo and with groups. Their fondness for the skip composition, however, which had its beginning as it spontaneously emerged, was not forgotten. In fact, much time was spent in refining and perfecting before they shared it with an audience.

Children have shown, regardless of age, that they are able to handle details in sequential and organized ways. They see relationships and make associations. Abstractions such as love, happiness, hope, anger, brotherhood, or democracy mean little to children and are usually merely words. If such adult concepts are given to them, their responses tend to be superficial. The concept must be associated with something real such as "The *Happy* Time at the Fire Station," "The *Angry* Bumblebee," "The Fireflies Keep *Hoping*—They Won't Turn Off."

There are many levels of maturity for dance composition among children in a given school. The younger they are, the simpler the statement and the more clearly allied to their particular world at the moment. As youngsters mature, the quality of experiences can yield dance composition of a more sophisticated nature.

One must be prepared to accept what emerges when involved in improvising, inventing, discovering, selecting movement or thematic material. This is true of any age group. In the beginning, what occurs may appear to be "groovy," brash, or trite. In time, with enriching and appropriate experiences, quality will be developed.

The teacher must not be in a rush to make boys and girls into performers. They must be allowed to be children who are not afraid of dance, who want to dance, and who can express themselves with sensitivity. Adults should want quality in children's dance. Children should want to ask, How can I dance it better?

THE CARGO NET

JOHN S. HICHWA

A cargo net is a new and creative piece of apparatus which excites and motivates primary and intermediate aged children to climb, balance, stretch, swing, and hang. It provides an opportunity to explore in a self-initiated and creative manner and gives each child a better idea of his own movement capabilities. There may be other cargo nets, but ours is unique in that it may be set up and used in a variety of ways.

Initially, the children should be allowed to explore and experiment on the net with as few limitations as possible. This self-initiated exploration satisfies the child's compelling desire to try something new and see what the cargo net is like.

Because the cargo net involves several children at the same time, and one child's movement will affect the movement of the others, the following suggestions could serve as guides in introducing the net to a physical education class:

1. Establish an atmosphere which will stimulate the children to meaningfully explore the many possibilities of the net.
2. Limit the height the children may climb during their first experience on the net.
3. Provide adequate matting under the cargo net.

These safety precautions are important; however, most children will only experiment at that level of skill in which they feel safe and secure.

John S. Hichwa is a physical education teacher at the John Read Middle School, Redding, Connecticut.

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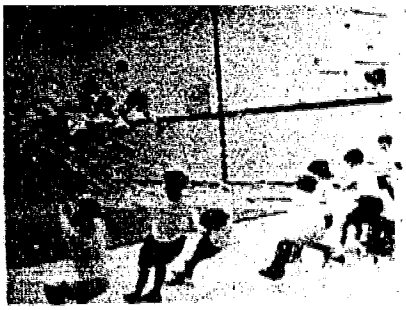


Once the students have had this initial experience of exploration, the teacher may make suggestions so as to stimulate the children to try new skills. For example, he may say:

"In how many different directions can you move?"

"Let's see who can stretch and cover up as much space as possible."

"How many different shapes can you find formed by the ropes of the net? Can you crawl through any one of them? Can you crawl through one of the spaces and climb on the outside of the net?"

"Who can move so that you will go over or under someone?"

"How high can you climb? How low?"

"See if you can move, keeping as much distance as possible from one another."

"See how close you can get to one another without touching each other."

"Find a spot on the net. Who can move to a spot furthest from you?"

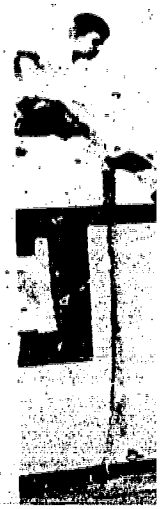
"How fast can you move on the net? How slow?"

"How can you swing on the net or be swung?"

"Can you climb the net using only your hands?"

"Can you climb horizontally across the net using only your hands?"

"With the net in a basket shape, find a stable position in the center of the basket. Can children standing on the floor shake you out?"



"Can you find a place on the cargo net and lay down as if you were in a hammock?"

"How many different ways can you find to get on or off the cargo net?"

"Can you do a hip circle mount or dismount on the net?"

The cargo net is both physically and emotionally challenging. It provides a stimulus for instant action.

In the self-initiated and guided phases of introducing the cargo net, it is important that the teacher and student communicate as much as possible. Let the children explain what they are doing and encourage a constant verbal and visual exchange of ideas.

Once the children become fully accustomed to the net, more specific activities may be initiated. For example you may want to have a round tug-o-war, have one group of children swing another, use the net in an obstacle course, or play "space tag" on the net.

Specific activities are fun, but children learn a great deal and enjoy self-initiated exploration. It is important that you revert back to this phase of teaching frequently, particularly with younger children.

The cargo net provides the children with the opportunity to explore on a three dimensional piece of equipment which moves as they move. The students discover depth and direction as well as develop basic spacial skills and strength. It allows them to create and discover basic movements at their own rate. Their courage and self-confidence is challenged. Their imagination is stimulated. Their natural interests and instincts are aroused.

Children need to discuss, to explore, to experiment, and to understand the basic elements of movement. The cargo net can aid each child to recognize and develop a kinesthetic awareness of these elements which include:

1. *Space*—discovering its various dimensions
   - up-down
   - forward-backward
   - twisted-straight
   - flexible-curved
   - direct path-indirect path
   - big-small
2. *Time*—learning how it affects movement
   - fast-slow and all speeds in between
3. *Force*—experimenting with it and its effects
   - strong-weak
   - push-pull
   - tense-relaxed
4. *Flow*—feeling the pleasures of moving from one skill to another with ease and fluency.

Soccer for Schools—A Modern Approach

ALAN LAUNDER

Soccer is one of the great games of the world. It is rapidly growing in popularity in the United States at nearly all levels, and many authorities believe that it should be one of the most important games in the schools.

One factor that is delaying a more rapid spread of soccer in schools is that many teachers have had little or no experience with the game themselves in school or college. They are often reluctant to introduce soccer because they think it is too complex or because they feel they cannot teach the many techniques of the game. The approach outlined here makes it possible for any enthusiastic teacher to introduce soccer to students of any grade level.

Most texts in elementary physical education recommend a series of lead up games and/or a sequence of isolated technique practices before introducing the actual game of soccer. However, few if any of the recommended lead up games bear any relationship to soccer and do little to give youngsters an understanding of the game or help them acquire the basic skills. Practicing the techniques of kicking, controlling, heading, and dribbling in drills outside the context of the game is also of limited value for there is little transfer to the real game.

Soccer should be introduced very simply in a modified form which "meets youngsters where they are" in terms of skill, needs, and interests. To do this:

1. Start with games between teams of 5 or 6 players instead of the usual 11. This encourages and allows more children to be actively involved.
2. Play on small fields, 20-30 yards wide and 30-50 yards long. This concentrates the action, cuts down on the amount of running required, and enables the children to play longer before they tire out.
3. Use a small ball. Elementary school children should use a molded rubber ball, such as a rubber volleyball, which can be kicked further, controlled more easily, and even headed without injury. This makes the game easier for young children and much more fun. Full sized soccer balls should not be used until the 9th grade at the earliest.
4. Make it easier to score, because children love to score goals. A goal is scored when the ball is kicked or dribbled with the foot over any part of the goal line (figure 1). In addition to making scoring easier, this change from the normal game eliminates the need for goal posts and encourages the players to use the full width of the field instead of playing up and down the middle.
5. Simplify the game by eliminating some rules and altering others. The following rules give the game the structure of soccer without making it too complex for beginners.

(a) The ball can be played with any part of the body *except* the hands and arms. Stress that this rule is very important and makes soccer a special game. Any touching of the ball with the hand by a team gives their opponents a free kick at the place the ball was handled.

(b) The game should be started, and restarted after a score, by a "drop" ball between two opponents in the center of the field. This rule can be altered to the correct soccer kickoff without great difficulty when a class is ready.

(c) When a team puts the ball "out of play" (out of bounds) over the "touchline" (sideline) the other team gets a free kick, not the usual "throw in" from the point where it crossed the line. The substitution of a kick for a throw-in eliminates a skill which children find difficult to execute and also somewhat confusing in a "no handling" game.

(d) While body contact is permitted, deliberate kicking, trip-

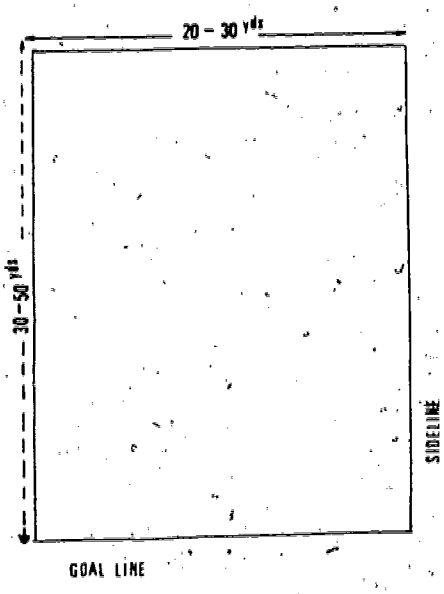


Figure 1

Reprinted from *Journal of Health, Physical Education, Recreation*, November-December 1973.

ALAN LAUNDER, former physical education instructor at Western Kentucky University, is now a lecturer in physical education at Adelaide College of Advanced Education in Adelaide, South Australia. A graduate of Loughborough College of Physical Education in England, he has taught and coached soccer at all levels in England and the United States. Before coming to the United States in 1967, he established Dr. Challoner's Grammar (selective high) School as one of the leading soccer schools in England.

ping, or punching is not allowed and should be penalized by a free kick to the other team from the place where the violation occurs—and of course by any other action the teacher cares to take.

(e) Omit the offside law, which is not only confusing to children—and their teachers—but cuts down on the real playing area.

It takes almost as long to write these rules down as it does to explain them and little time should be spent on them. The one rule which must be observed is "get the game started as quickly as possible." Teachers who do have a good background in soccer must resist the temptation to give beginners lectures on the rules, techniques, positional play, or tactics before they start the game. Until children have had a chance to play they will be unable to understand your lecture and, more important, they will not be interested in it. They want to start playing.

In the elementary school, therefore, get the game started quickly and let your class have fun, playing the primitive "kick and rush" game that develops, with little or no interruption. When they do get tired give them a short break, in which you can stress any of the rules which have been "bent a little." Although there will appear to be little skill development at this stage many valuable learnings are taking place which involve concepts that adults take for granted but which may be totally new to your class. The concepts of a "team," of "playing in a certain direction," "scoring a goal," of "change of possession," "attack and defense," and "out of play" with its acceptance of a bounded playing area are important both to soccer and to many other games. In addition the children can begin to see a need for rules and hopefully develop an awareness of such difficult concepts as "the rights of others" and "fair play." Finally, this chaotic but fun game lays a real foundation for an understanding of soccer and of the skills needed for success in it. Both logic and experience suggest that this approach to teaching soccer is far better than static "one at a time" lead up games which in fact lead nowhere and makes far more sense than practicing isolated skills which are never really used in the game.

At the 5th grade level and above an enthusiastic teacher who thinks his class is ready can quickly raise the standard of play and bring the game closer to real soccer. To do this, first concentrate on improving passing for this is the basis of organized team play.

Begin with a simple four on one passing practice (figure 2) which not only develops the techniques of kicking and controlling the ball but also develops the perceptual aspects of passing. If the defender (x) moves to cover one man the ball player must quickly spot the open man and pass to him. The new ball player now has to control the ball quickly, choose the open man, and pass off again. When five passes are completed the defender changes places with a passer although if he touches the ball at any time before five are made he takes the place of the player whose pass was intercepted. Young children can pass the ball in this practice without great skill in kicking and controlling and they are learning the most important skill in passing—choosing the open man. However, progress can be speeded up if the students are given some instruction in the skills of kicking and controlling at this point.

There are several effective methods of kicking the ball but at this stage the "instep kick" is the best, for it combines power and accuracy. The following points should be stressed:

1. Use a slightly curved 2 or 3 step approach.
2. Place the nonkicking foot (the left foot in the case of a right footed kicker) level with the ball but not right alongside it.
3. Keep the head down and eyes on the ball throughout the kick.
4. Lock the kicking foot back so that as it meets the ball the toe is down and contact is made with the lower laces and toe.
5. Swing the whole leg at the ball and drive the instep through it with a powerful snap of the lower leg.

There are many specific techniques for controlling the ball with different parts of the body but with youngsters it is sufficient to tell them to move quickly to the path of the ball and relax the part of the body the ball is to be stopped with. Treat the ball like a friend! Let the body relax as the ball contacts the inside or sole of the foot, thigh, abdomen, or chest. Do *not* encourage students to use their shins to control the ball for although this technique is recommended in most books on soccer published in this country it is not very effective.

Use the four on one practice to improve these skills and then when the students are ready, move to a three on one practice (figure 3a). This not only puts more pressure on the techniques of kicking and controlling but introduces the new and important skills of passing into a space, moving into a space for a pass, and making the angle for a pass.

With only two receivers to cover, the defender can cut off a pass to either unless they move into better positions. As shown in figure 3b, O2 runs into space to give ballplayer O1 an easy target; as the defender X1 moves to cut off the obvious pass back to O1, O3 now takes up a new position (figure 3c) which makes O2's task simple. This sequence can be continued until a pass is intercepted or until five passes are completed. As ball control improves, the size of the offensive triangle can gradually be cut down to about ten yards. If further development is needed the teacher can either use a three on two practice or he can move to a three on one practice in which the attackers have to advance the ball past a defender to score a goal (figure 4).

Make sure that the youngsters have plenty of opportunities to play the modified game already introduced and encourage them to use their new skills in it. Help them develop further by teaching the offensive principles of width, support, movement, and penetration, and the defensive principle of delay. Without some understanding of these principles of play the game will tend to remain a chaotic jumble in which there will be no time or space for the player to control and kick accurately. Unless there is some further improvement, boys will often lose interest for in the upper elementary grades and in the junior high they are skill hungry and need to meet and master new challenges.

Figure 5 shows the normal pattern of play with beginners who will cluster around the ball, kicking it wildly, then chasing it to surround it again. The offensive team should

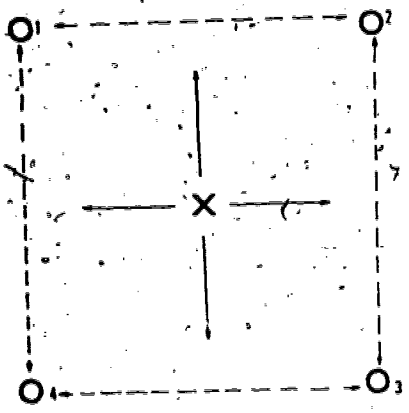


Figure 2

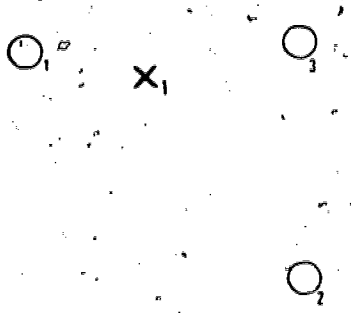


Figure 3a

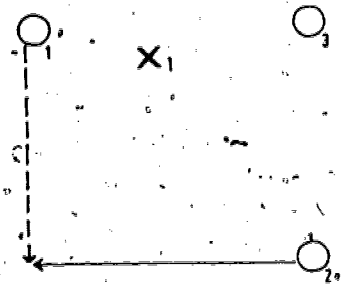


Figure 3b

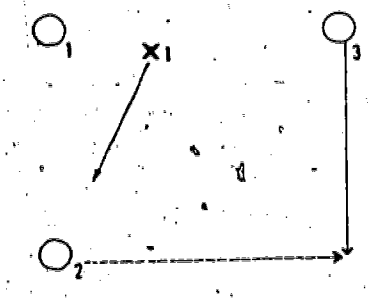


Figure 3c

spread out, by using the width of the field (O5 and O6), by supporting O1, the ball player (O2 and O3), and by moving into the space created (O4). They will thus force the defenders to adjust as shown in figure 6. There are now many possible passes, there is space for the players to move into, and a receiver can make time for himself so that he can more easily control the ball and look for a new receiver. If the defenders are encouraged not to rush wildly at the ball player but instead to simply move between him and the goal line to delay him this will slow down the hectic pace and bring more structure to the game.

Other skills such as heading and dribbling past an opponent will often develop naturally, although an experienced teacher can easily set up suitable practices to facilitate their development. At some point, goals and goalkeeping should be introduced; although the fifth grade is suggested, only the individual teacher can decide when the time is ripe. Keeping goal is a difficult skill which requires considerable agility as well as physical and moral courage so that few boys will initially be enthusiastic about playing there. The best approach is to start with a primitive goal of marker cones or volleyball posts and then allow a specified player on each team to use his hands to stop shots at the goal; do not force him to play always in front of the goal but let him move around freely. Encourage frequent switches of goalkeepers without insisting that anyone play there. In this way boys who like to play in goal will discover their ability and will usually begin to volunteer to play there all the time. Do not, however, encourage complete specialization too soon for this is a period of great physical and emotional change.

This approach to introducing soccer has been used successfully with first graders and with college students. It has many advantages, the most important of which are simplicity and a positive student response which leads to further interest and participation. Finally and perhaps most important of all, this approach to teaching soccer meets the criterion which must be applied to all games for children—"If a game is worth playing, it is worth playing badly." Heresy? Maybe, or maybe not! □

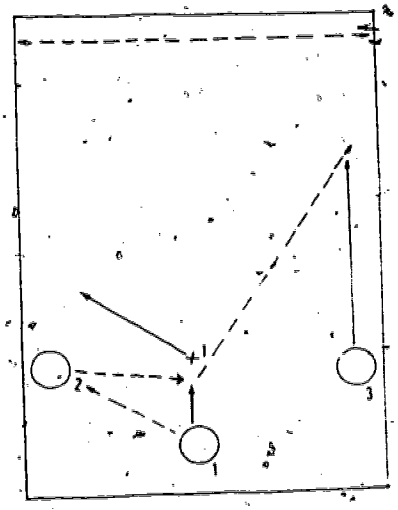


Figure 4

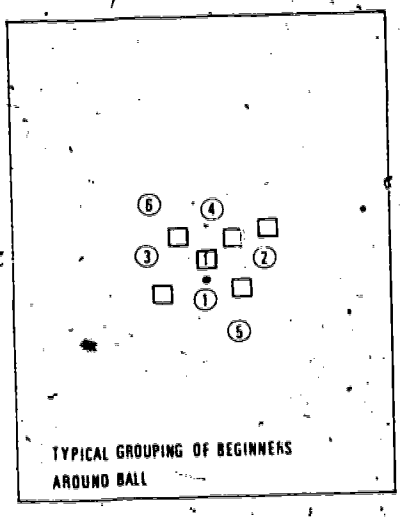


Figure 5

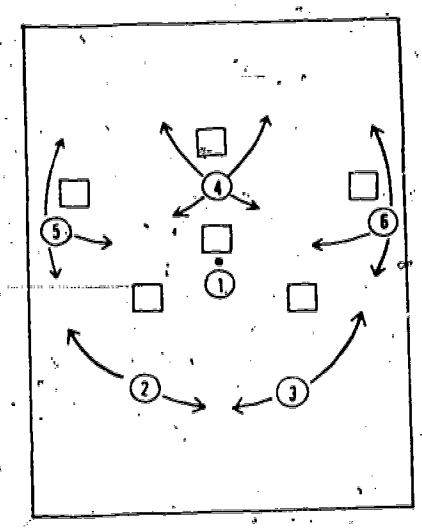
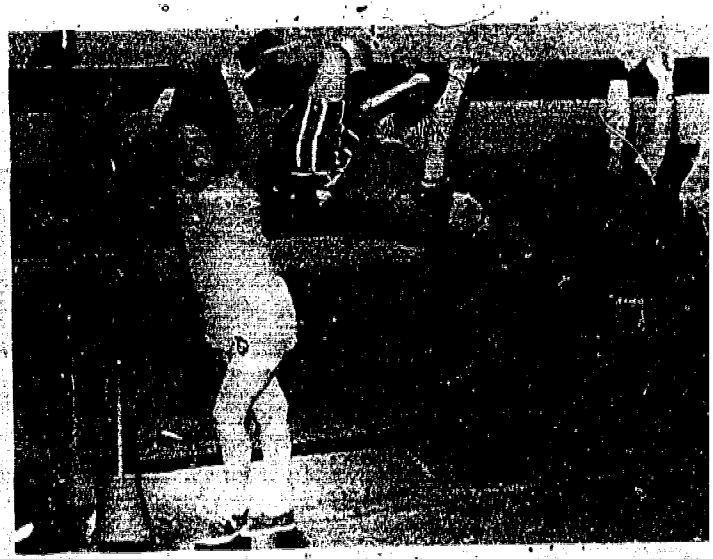


Figure 6

An Open Gy

ANNE F. MILLAN



At Driscoll School in Brookline, Massachusetts, we combine philosophy, methodology, and organization in such a way that *all* children find exciting challenges in physical education. Our network of fundamentals includes:

Philosophy—Joy in activity
Methodology—Movement exploration
Organization—Open gym
diversification

This pattern has produced new qualities and satisfactions in physical education for both pupils and teacher.

The flood of books and articles about the relatively new "open" classrooms of England has influenced teachers and parents in this country. Physical educators who are concerned about accommodating the wide range of individual differences in the primary grades can profit from studying that literature. Adopting the *best* ideas about open classrooms leads to organizing the gym in such a way that large numbers of children find joy and success. Regardless of the differences in sex, somatotype, age, past experience, confidence, socialization, fitness, or skill, the open gym has something for everyone.

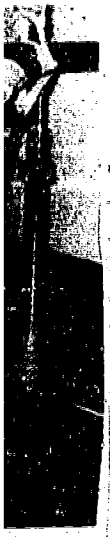
Basically, our gym is divided by mats or cones into three separate areas:

Apparatus Exploration: beams, box, boom, horse, ladder, ropes, stall bars, parallels

Favorite Games: Jump the shot, call ball, tether ball, bowling, dodgeball, newcomb, rollies at the bat

Perceptual-Motor Play: Balance board, form-perception box, crawl tunnel, hoops, ball skills, footsies, jump ropes

In addition to these three play areas, there is a special track surrounding at least one of those areas. The track of mats is used for total group activities at the start of each lesson. This is an ideal area for stunts, mimetics, motor patterning, or circuit training. Some children elect to stay on the track throughout the whole lesson. Following the lesson opening, children scatter to various play areas.



Some kind of sequential selection of activities and/or equipment leads to better all-around lessons. [illegible] started simply; we have progressed to [illegible]phisticated levels in several kinds of activities.

"New" games or equipment are pointed out with a minimum of explanation, demonstration, or motivation. Traditional, mass teaching is extremely rare and quite unnecessary. Natural, on-the-spot, small group teaching is continuous.

The children's success and outright enthusiasm have made the open gym a permanent feature of our program. □

Reprinted from *Journal of Health, Physical Education, Recreation*, May 1972.

ANNE F. MILLAN is with Michael Driscoll School, 64 Westbourne Terrace, Brookline, Massachusetts 02146.

PLAY CARDS

SUSAN RAVITZ teaches physical education at North Country Elementary School, Suffolk Avenue, Stony Brook, New York 11790.

We have devised a series of play cards which help young children master basic physical skills under the guidance of the older children in our school. In addition to conventional classrooms, North Country School has two "open" wings housing students in grades 1-6. The interage grouping in the open classes gives the older children the opportunity to help the younger ones with physical skills and with the reading skills necessary to work with the play cards.

Each play card describes a sequence of skill utilization activities that provide the practice necessary before the advanced skills can be introduced. Our particular play cards are intended to help the younger children develop ball handling skills, but the concept can be used as a teaching technique in many areas of skill development. The cards involve movement skills and perception skills; the sequence of six cards ends with a fun game. The composition of the cards can be varied according to the needs of the students in any particular situation.

We have the children work in pairs on the cards. They are free to chose their own partners, but interage grouping is a requirement. The children move at their own speed. They are particularly fond of play card #4 where they have to aim at targets. They like to work on play card #5, which gives them the opportunity to use their imaginations.

The adapted physical education program at the North Country School (a remedial program for children with physical difficulties) has incorporated the concept, permitting the participants in that program to develop their skills at a pace that they can handle without undue frustration or embarrassment.

The children's enthusiasm and their obvious improvement in basic ball handling skills, and the practice that the cards provide in reading skills, have made play cards a permanent feature of our program.

Reprinted from *Journal of Health, Physical Education, Recreation*, February 1975.

PLAY CARD #1

Use a *LARGE ball*

1. Bounce the ball with the hand you *write* with. Try and bounce it so that it does not go over the *waist*.
2. Do the same thing with your *other* hand.
3. Bounce the ball with the hand you *write* with. Bounce the ball so it goes *over* your head. Try not to move your feet.
4. Do the same thing with the *other* hand.
5. Bounce the ball. Make sure the ball bounces only one time. Don't bounce too high. Catch with *two* hands.
6. Bounce the ball. Make sure the ball bounces only one time. Catch with *one* hand.
7. Do 1-6 again.

Very good. Now please go get Play Card #2.

PLAY CARD #2

Use a *SMALL* ball

1. Bounce the ball with the hand you *write* with. Remember—not over the waist.
2. Do the same thing with your *other* hand.
3. Bounce the ball with the hand you *write* with. Bounce the ball *over* your head.
4. Do the same thing with the *other* hand.
5. Bounce the ball (one bounce). Don't bounce too high. Catch with *two* hands.
6. Bounce the ball (one bounce). Catch with *one* hand.
7. Do 1-6 again.

Good. You are ready for Play Card #3

PLAY CARD #3

1. Throw the ball *carefully* in the air—*not too high*. Let it bounce one (1) time. Catch with two (2) hands.
2. Throw the ball *carefully* in the air. Catch it with *one* hand.
3. Throw the ball *carefully* in the air. Let it bounce two (2) times. Catch with two (2) hands.
4. Throw the ball *carefully* in the air. Let it bounce two (2) times. Catch with one (1) hand.
5. Do the same as 1-4 but *turn around* as you do it.
6. Repeat items 1-5. Use a large ball if you have already used a small ball.

Now go on to Play Card #4.

PLAY CARD #4

1. Throw the ball to the target the teacher will show you.
2. Use a large ball if you have already used a small ball.

When you can do this well, you are ready for Play Card #5. Good luck!
Some targets—basketball hoop, markings on wall, bowling pins, basket on floor

PLAY CARD #5

Make patterns on the floor with the ball.

Suggestions:

Triangle
Circle
Line
Square
Letters—Spell your name.
Numbers—All numbers. Add and subtract.

Very good work. Now you are ready for Play Card #6.

PLAY CARD #6

1. Roll ball to partner. Sit close together and roll ball to partner.
2. Now that you can do this, move back and do it again.
3. Get on your knees. Bounce the ball to your partner. After you can do this, stand up and bounce ball to partner.
4. Do 1-3 with a large ball if you used a small ball before.
5. Play "Hit the Penny."

Congratulations! You have completed your Play Cards.

DANCE IN THE CREATIVE ARTS CURRICULUM

Marie Louise Sterne is a physical education specialist for the Hunters Woods Elementary School, Reston, Virginia.

Hunters Woods is a nongraded school with an enrollment of 1,300 children. The six teams of children which comprise the school population are multi-age grouped and are team taught. There are two full-time elementary physical education specialists. In conjunction with the school's focus on a creative arts curriculum, the physical education program included creative dance.

The interest stimulated during this curricular activity resulted in a request from the children that a creative arts "center" be set up. The physical education specialist taught a group of 40 children during free time each Friday afternoon for 70 minutes; she then planned with other teachers some follow-up experiences for the Wednesday afternoon meeting of the group.

Reprinted from *Journal of Health, Physical Education, Recreation,* October 1971.

The experiences provided for these children included combining locomotor and nonlocomotor movements in various ways, using a problem-solving approach, using percussion to accompany original movements, and using the body to move to original interpretations of words, phrases, sentences, haiku, and other poetry.

In November the children worked with the chorus and created a dance to an American Indian Christmas carol entitled "The Huron Carol." This combination of song and dance was presented for the other children of the school and for the PTA. On December 23, it was presented on closed circuit TV as part of the Reston community's Christmas pageant.

Another special project of this group of children was the creation of a movement experience utilizing hoops. Two twelve-year old children created movements at home and offered to present their composition to the group. Their choreography lent itself so well to the use of hoops that we all learned their original movement sequences, incorporating our hula hoops.

The experimental inclusion of dance in the creative arts curriculum enriched the experiences of those children who participated in it. It gave the children a positive feeling about movement, themselves, and their ability to move creatively.

WATCH US!

Joan S. Tillotson was formerly a movement education specialist for the Plattsburgh, New York, Elementary Schools.

Thirty hoops, sticks, and balls were conveniently placed around the playspace. As the second graders came in, music of the Tijuana Brass was being played. The children immediately moved freely through the playspace, in time with the music, with and/or without a partner or partners. Without a word, the teacher put other music on, picked up a hoop and tapped a rhythmic pattern on the floor; the children copied with their hands or feet on the floor. The teacher did the same with a stick and then a ball, changing rhythmic patterns each time. Without comment, the teacher indicated that the children were to choose their equipment, find a space on the floor, and begin to make up patterns on their own.

Two boys were working together and had developed a pattern which they could do with a hoop and at the same time walk around the floor following the leader. They raced to the teacher to have her "Watch us!" At the ". . . and rest" signal, the children sat on the floor and watched two demonstrations: the two boys and their hoop pattern and a girl with a ball-rhythm pattern. The class was asked to try to pick up the rhythmic patterns with their piece of equipment as they sat in their places. Some were obviously successful; other needed more time to practice. The children were encouraged to continue developing a pattern, either their own or one of the ones demonstrated for the whole class.

As the class progressed, the children decided to join the two boys who had a very interesting and contagious rhythm. By this time, the music faded out of the picture entirely, and the children hardly noticed that they were working without an external beat.

As more and more joined the two boys, others put down their ball or stick, picked up a hoop, and soon all but two children were "marching" around, each with a hoop, picking up the "catchy" rhythmic pattern. The teacher suggested that the two boys be leaders and see what changes they could make in the force used with the hoop and with the speed of the pattern. The changes were delightful and the total class was engrossed in working cooperatively. As an ending of the class period, the children worked with the Tijuana Brass music again and continued the pattern out the door, without hoops, and quietly down the corridor to the classroom.

Reprinted from *Journal of Health, Physical Education, Recreation*, October 1971.

STRETCHING YOUR WAY TO FITNESS

One child is developing muscles through isotonic exercise, another is becoming more flexible, while a third child is becoming creative by developing his own movements, and all of these activities are done with the same piece of equipment. Is this a typical scene in your physical education class? If not, it could be. This can be a part of your program and the only cost involved is the time it may take to stop at a local bike shop. This marvelous piece of equipment is the inner tube.

The bicycle inner tube can become a valuable and enjoyable piece of equipment. With it, a child can become aware of his body's strengths, limitations, and various movement possibilities, through activities such as the following.

Activities done alone (hold each position for 8 seconds)

1. Stand with both feet on the inner tube; pull up with both arms (palms down).
2. Same as above but reverse grip (palms up).
3. Stand with both feet on the tube; loop the tube behind the neck; from a crouch position force the tube up with the neck.
4. Same as above but push the arms out to the side.
5. Double the tube; hold in front of body with locked elbows; with arms pull out to the side.
6. Double the tube; loop the tube around one foot; balance on one foot; pull to the side with the other foot.
7. Repeat using the other foot.
8. Double the tube; hook behind one heel; keep other leg straight; point toe of straight leg and lift straight forward.
9. Repeat using the other foot.
10. Double the tube; hold high over the head with straight arms; pull arms in opposite directions.
11. Using two doubled tubes, place one under each foot; pull up with hands and walk with stiff legs.

Activities with a partner

1. Sit with feet flat against partners; hook tube over feet; keep legs straight and use rowing technique; lie down, sit up, lie down, sit up, etc.
2. With tube around waist of both partners, have each partner take six steps in the opposite direction.

Activities with a group of four

1. With tube held in hands, two partners stay in place while two back out; continue to work in and out, in and out, etc.
2. All hold tube above heads; turn inside out.
3. Travel in a circle; walk, skip, hop, run, etc.

Now that you have some basic activities it's time to let the students create their own. You will be surprised and delighted to see the wide range of activities created when adequate time is given to the students. □

PAT WAGNER is a graduate assistant in the Health and Physical Education Department of Miami University, Oxford, Ohio 45056.

Reprinted from *Journal of Health, Physical Education, Recreation*, March 1975.

LEARNING IN THE GYMNASIUM

JOAN WATTS is physical education teacher in the Hewlett-Woodmere, New York, Public Schools. DAVID WIENER is both a physical educator in the Hewlett-Woodmere system and an adjunct lecturer of physical education at Brooklyn College.

The idea that each subject matter in the grade schools is taught separately and apart from others has long passed. Physical education, however, has sometimes been slow to adapt. Now it must prove its value in the realm of interdisciplinary methods of education and show that the gymnasium is truly a classroom, too.

Identifying letters is one example of how the physical education program can reenforce other learning. This activity is known as human anagrams. In the early lessons children learn to form various shapes with their bodies on the floor (C, L, Y, T) or with a partner (D, J, X, square, rectangle, oval). This gives them an opportunity to recognize and understand through their own body movements the formation of these shapes. When the children have grasped this concept they are ready to work with two partners to increase the scope of letters and forms that they may wish to try (A, B, F, H, I, triangle). When the children are able to form and identify all the letters of the alphabet they are then ready to work in groups of two or three to form two-letter words. The progression from here is to develop more complex words. It is quickly apparent which children have a better understanding of how to form and spell words. They automatically seek out those who can work at their own level, but these children can be helpful to others in a learning situation.

It should be noted that it is easier to begin with block capital letters. It should also be noted that the authors have experienced success with this activity at the kindergarten level.

Another method of approaching the concept of shapes is to have the children write a shape on a piece of paper and then walk the shape on the floor. This can be made into a partner type game where one child tries to guess the shape that his partner is forming on the floor. Through interaction with other members of the class the children are introduced to all the shapes and letters over a short period of time.

The reenforcement of identifying geometric figures can be accomplished through the use of stretch ropes. The student shapes the stretch rope into various figures: triangle, square, and rectangle. He or she must think in order to increase the number of points needed to form a pentagon, hexagon, or octagon. It becomes necessary for them to find parts of their bodies which will create a point—not all body parts will. Once the basic geometric figure has been established the child can make it become wide, narrow, small or large. Body positions can also be changed while performing the task. The child can be standing, lying down facing the ceiling or lying down facing the floor. These variations allow the teacher to observe whether or not the child fully understands the figures.

These are but a few areas of reenforcement which can be incorporated in the physical education program. The list can be an extensive one, but both the classroom teachers and the physical educators must leave their domains and communicate with one another. The results will build understanding among professionals and at the same time benefit the children.

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Hidden Treasure in Your Refrigerator

BOB WILLIAMSON is a physical education specialist for Billings Public Schools in Billings, Montana.

Many city and rural schools throughout the country are financially unable to supply their multi-purpose rooms or gymnasiums with the essential equipment needed for elementary physical education. Creativity and innovation must then become the answers to many of the equipment problems.

As an elementary physical education specialist and instructor, I am constantly searching for new materials that are easily obtainable, inexpensive, sturdy, uncomplicated, and safe.

The empty milk carton has become a treasured piece of equipment for the elementary schools in Billings, Montana, during the past two years, particularly for children in primary grades and special education. We had students bring empty, clean one-half gallon or gallon milk cartons to school. This stimulated their interest, because almost any student could easily obtain an empty milk carton.

The milk carton serves as equipment in three areas of creative play: (1) obstacle course with stunts and relays, (2) skill building activities, and (3) games. The obstacle course is particularly good for developing balance, agility, strength, and endurance.

The different activities appeal to the children as being primarily fun, but even more important, the attributes of initiative, coordination, motor skills, and fitness are being developed and improved through play with the milk cartons.

Most of the games and activities are derived from others and are modified for play with the milk carton. Thus, the milk carton soccer and the milk carton hockey games use combinations of rules from both soccer and hockey. The hockey game, for example, is characterized by using the hand in place of the hockey stick in regular hockey, and boxes are used as goals for both milk carton soccer and milk carton hockey.

In all the activities, stunts, and games utilizing the milk carton, the children provide the milk carton and the instructor provides the leadership and instruction. This results in a healthful, recreational, and fun-filled elementary physical education program.

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MILK CARTON SOCCER

Purpose: To develop eye-foot coordination, with vigorous play. Team work and fair play should be stressed.

Equipment: Multipurpose room or playground. ½ gallon or preferably 1 gallon milk carton. Cartons may be filled with foam rubber and taped to make more durable.

Number of Players: Game Method 1—10 to 12 players to a team depending on size of area. Game Method 2—6 to 10 players on a team. (Play for 5 minutes, then substitute).

Objective of Game: Try to use teamwork in taking the carton (ball) from the opponents and score a goal.

The game is played with modified rules for safety.

Each M.P. Room would use different floor markings for boundaries. The game may be played in 4 periods. The time allowed is up to the teacher, but do not exceed more than 5 minutes per period.

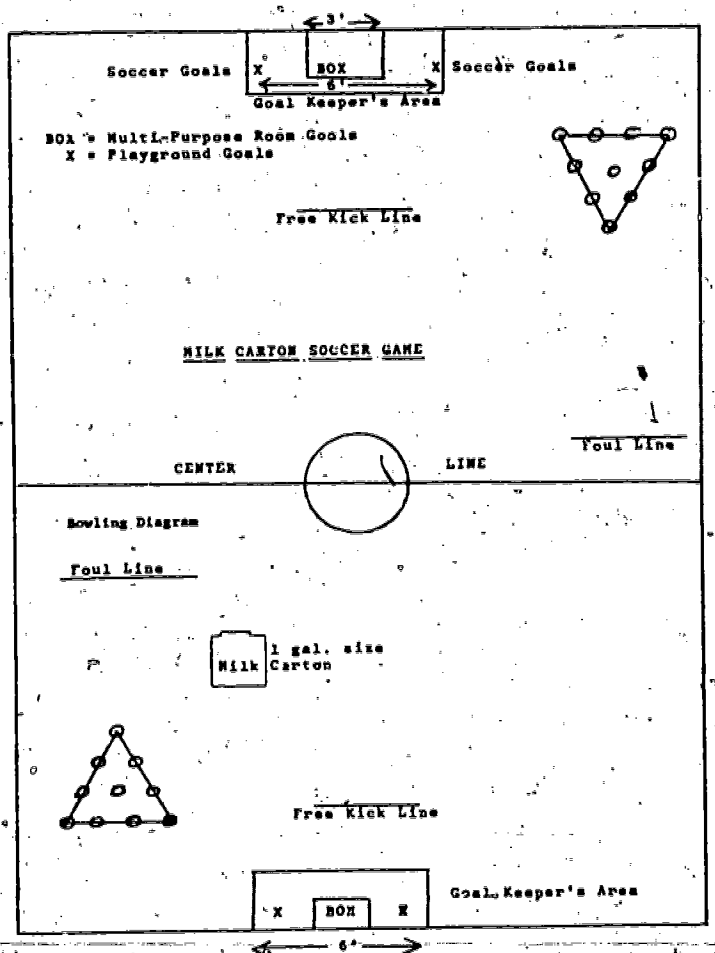
To Start Game: The official may drop carton between two players at center of playing area, or toss coin to see which team will put ball into play by a free kick to the opponent's team.

Scoring: (Goals) Carton is kicked in box which is on its side with open end out, or kicked between two soccer standards which are six feet apart. Each goal counts one point.

Rules: Soccer kick only using the instep of foot. It is illegal to push, trip, use unnecessary roughness, or touch carton with hands. If any of the above are violated, free kick is awarded the offended team. (DON'T LET GAME GET TOO ROUGH!)

Free Kick Line: A line 10 feet or closer (depending on skill of students) in front of goal—where offended team's player may place carton for chance to score a goal. All other players line up in back of person making an attempt on a free kick. If missed, the carton becomes live and play resumes.

Throw In: It is legal to throw carton in from out of bounds with *two hands over head* only when you're putting the ball (carton) into play.



Milk carton soccer

Pass: Players spread out and one controls the carton by kicking it to another on his team.

Goal Keeper: A team may keep a goal keeper back to protect their goal.

Game Method No. 1: The playing area is divided by a center line and each team may have the same number of offensive and defensive players on each side. Some play only offense or defense, depending on which goal they are defending. No one is allowed to cross the center line. If this is violated, the offended team receives a free kick.

Game Method No. 2: All players can move in any direction and the center line is disregarded. The scramble system—a mixture of offense and defense.

HAND MILK CARTON HOCKEY

Play game with hands only; use hands like a hockey stick (no picking up carton). Use some of the rules and modify to meet needs of students. Use game Method No. 1 or No. 2 from Milk Carton Soccer Game.

Floor Description—can be marked with colored tape.

OBSTACLE COURSE

Place cartons about 4-5 feet apart in a line, circle, or other formation as desired.

1. Zig zag run in and out.
2. Straddle—leg run over top of carton (knees high and wide apart).
3. "Jack be nimble and quick and jump over the milk carton"—high stepping over each, picking up knees.
4. Kangaroo—standing jumps forward and sideward over cartons.
5. Leaping over.
6. Hopping in and out—zig-zag, hopping first on one foot and then the other, holding the other toe up in back of body with the hand.
7. Alternate hops and jumps.
8. Puppy dog zig-zag—zig-zag in and out among the cartons on all fours (hands and feet), stomach parallel to floor, back up.
9. Crab-walking zig-zag—zig-zag in and out among the cartons on the palms of the hands and the soles of the feet, back parallel to the floor, stomach up.
10. Improvisations—be creative; combine stunts into series—use other equipment, balls, bean bags, ropes, sticks with the milk cartons.

SKILLS TAUGHT USING MILK CARTONS

1. Soccer kick—use instep of foot
2. Soccer dribble—use instep and outside of foot
3. Punting—hold with two hands like football and punt
4. Bowling (using playground ball and milk cartons for pins)—bowling skill 4 step or 5 step approach; roll underhand
5. Throwing (using bean bags to throw at carton targets)—overhand or underhand
6. Pass milk carton (football pass)
7. Hand hockey dribble—arms and hands as hockey stick
8. Balance—balance carton on head, foot, or hand

SUGGESTED GAMES USING MILK CARTONS

1. Kick the carton—line up carton on center line, use free kick line to soccer kick balls at milk carton. See M.P. Room diagram.
2. Circle Soccer—use M.P. Room circle. (See M.P. Room diagram.)
3. Bowling—(See multi-purpose diagram.)

Punting carton

Crab soccer dribble relay

4. Line Soccer
5. Crab Soccer—(to see position check obstacle course #9, use goals and M.P. Room. See M.P. Room diagram.)
6. Obstacle Course—(with teams and relay methods.)
7. Scramble Soccer (Keep Away)—*with feet or hands* (free for all, try to take carton from anyone—fewer cartons than players)
8. Relays—
   a. *Elephant*—clasp both hands together with fingers. Hang arms down and keep elbows straight. Walk and swing arms side to side pushing carton. Bend over at waist.
   b. *Crab*—See Obstacle Course #9. Push with feet using instep.
   c. *Billy Goat*—Push carton by butting and pushing with head. Keep on your hands and toes (don't let knees touch).
   d. *William Tell*—Balance carton on head, hands or feet. Balance race.
9. Milk Carton Soccer
10. Milk Carton Hockey—using game method No. 1 or No. 2; also convert rules from milk carton soccer game into milk carton hockey.

MARKET DAY SONG AND DANCE

Ruth Wilson and Beauford Thompson are sixth grade teachers at Davis Elementary School, Cheyenne, Wyoming.

Sixth grade boys and girls at Davis Elementary School, Cheyenne, Wyoming, were studying Latin America in social studies. For some time they had been discovering how some of the Latin American people trade and sell their products, and they wanted to have their own market day. In art class, they made such items as pots, candle holders, siesta mats, jewelry, hats, and toys. Booths were constructed from which groups of children (families) were to sell their wares.

What a natural background for the creation of their own chants and folk dance. A market day song and movements were developed by the children especially for this event. The dance was performed by the entire group. Each "family" entered the plaza gaily dancing and joyously greeting each other. At the conclusion of the welcoming entrance, the group dispersed to their appropriate booths to begin the serious business of bartering with appropriate chants. One boy moving from group to group provided the necessary thread for continuous movement, as each family in turn circled the plaza chanting and dancing about their wares. The dance concluded with all groups joining in a circle, sliding, jumping, skipping, and singing together.

Following this experience, each child wrote his reaction to the activity. Paul expressed it as follows: "We did this Market Day because it gave us experience on how the Latin American people trade and sell their products. We made pots, candle holders, toys and etc. We also made booths and made songs and dances. The dances we did were using creative dances like skipping, jumping, running and other movements. The song we made up ourselves. This was the most interesting experience."

The children enjoyed the experience so much that they decided to re-do their market day for their parents and the whole school.

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RESPONDING ACTIVELY TO THE WORLD AROUND US

Loretta Wollard is a second grade teacher and Hallie B. Judd is a third grade teacher in the Richmond, Virginia, Public Schools.

As a new teacher at Maury School, Richmond, Virginia, I recognized the need for variety in the program I was developing with the 35 children in my second grade class. There were dimensions in learning that seemed to be missing. Potential opportunities existed for rich learning for each child in my class, but I did not know how to capture them. Seeking assistance from my principal, Elizabeth Wall, I was encouraged to investigate the possibilities of emphasis on children's dance. Plans developed, and we became a pilot class for the Task Force on Children's Dance of the AAHPER Dance Division.

The first experience under the guidance of Gladys Fleming made me realize that one of the dimensions of learning for which I had been groping was sensing the world around us and responding actively through creative rhythmic movement. Given opportunities to explore movement and movement combinations, the children became better aware of their own potential, discovered spatial relationships, and were able to handle themselves in various dimensions of space. They started responding rhythmically to what they saw, felt, and heard.

As our work with this medium of expression progressed I found that the children were following directions, listening, thinking, solving problems, and inventing. I felt that the children were feeling better about themselves. They were sensing and responding; they felt accomplishment!

At one time, we studied the sea and used it as a source for expression through words and dance. Concepts of waves, shells, fish, gulls, and other life in the sea were reinforced. This experience of exploring ideas about the sea by using movement helped to emphasize verbal aspects of learning, including vocabulary building, reading, poetry, and story writing.

One of the boys made a boat and brought it to school for all to see. As we were discussing Glen's boat, we decided to write our own story and to extend it into our dance.

> One day Glen took us exploring in his boat. We left on a beautiful Saturday morning. We wanted to look for many things. Wowww! The first thing we caught was an octopus. We saw a gigantic whale. There was a gooey jellyfish floating on the water. We also saw a squid under the water. On the floor of the ocean we saw crabs, sand dollars, and shells. Fish and seahorses were swimming all around our boat. It began to get dark. Glen took us home and said, "I will take you again some sunny day!"

Another day the children found that they could swing their bodies in many ways and that they could invent a variety of swinging patterns. The group tried to identify many things that swing. From this vocabulary and reading chart we wrote our song, "Things Are Swinging All Over Town." The children understood the concept and readily made associations because they could "feel" a swing. Soon the song was turned into a dance and we were able to sing our own accompaniment.

Things Are Swinging All Over Town

Things are swinging all over town
Things are swinging all over town
This is what we all can see
Things are swinging all over town.

A skinny monkey swings on a tree.
You can swing on a swing with me!
An elephant can swing his big trunk.
A little boy can swing off his bunk.

A kite can swing in the sky so high.
Branches swing in the bright blue sky.
A happy puppy swings his tail.
A boy and girl can swing a pail.
An opossum swings upside down.
Things are swinging all over town!

The children are now sensing and responding in many different ways. They have come to realize that our class is made up of many different boys and girls who need to work and live together while in school. A unified group seems to be emerging. As they have had increased opportunities for creative expression, their self concepts have improved.

As the children have learned from this experience, I have also learned. I now know that a reading experience involves more than just books and words. It involves the child's life and interests as a source, his mind for thinking, his voice for verbalization (stories, poems, songs), his hands for writing, and his whole body for a deeper understanding through creative movement and dance. A child must sense and respond for true learning and understanding.

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When the situation changed, because the children in the Maury School were transferred to the Blackwell School, the principal was anxious that the pilot project in children's dance continue. Another teacher took over the third grade group who had also worked with Dr. Fleming the previous year, and thus we can show the progression of activities during a second year.

Creative rhythmic movement and dance continued to be an integral part of the new third grade's work. The boys and girls had become more skillful in handling their bodies in space and with varying complexities of time factors. They seemed to enjoy working out ideas from various content areas.

The children have helped to teach others who have joined the group both movement skills and competence in analyzing them. They have enjoyed composing dances. The group was particularly fond of making a dance out of results of their discussion of "Fun in the Sun." Donna, a member of the group, wrote the dance in story form. Children selected parts and worked hard in "dancing out" their ideas. They perfected this dance and performed it for others.

One day when they were getting ready for a performance they decided that they needed to also tell their story in color. A mural emerged. As Donna read her story the class mural and background music became a part of the dance.

Last year this group gave several special sessions for interested groups in the city. They wanted to share two of their favorite poems and to communicate them through music and movement. The poems were "Jump and Jiggle" and "Kite Weather."

The work of this group has been exciting. The children have requested that they continue as a group and that they have dance experiences. Arrangements have been made for the group to remain as a working group for another year. One of the teachers has requested the opportunity to help in integrated learnings.

It is important to note that the principal valued these dance experiences and that all administrative arrangements were made for a new year. Likewise it should be noted that this project was carried out in a large, urban school with major problems of integration. It is significant to report that no racial barriers arose and that highly effective interpersonal relations existed.

Play and Playgrounds

Play as a Medium for Learning

by Mary W. Moffitt

DOES PLAY MAKE A DIFFERENCE

PEOPLE tend to approach play from two different stances. One, they like it because it just happens to be more fun than most other things that human beings do. It follows, therefore, that we should have more of it, and it's a dull world if we do not. This was not a popular point of view in Puritan times, but it has increased its vogue in recent years.

Two, others argue that although play might seem to be a somewhat useless activity, that can't really be so. After all, human beings are evolutionary creatures and could hardly have survived by putting so much time and effort into an unfunctional activity; therefore, play and games must be useful. Unfortunately, it has been not so easy to show what play and games contribute as it has been to make this claim. Currently it is being argued that play and games contribute to learning, particularly of a cognitive sort. The article by Moffitt provides us with a valuable set of parallels between play and cognitive activity and lays the groundwork for testing some of the propositions about play's usefulness.

One has to keep in mind, however, that much of what Moffitt describes as play would be called straight exploration or learning by others. It could be that all these understandings are gained through exploration, and that play has to do less with these cognitive phenomena than with the child's control over the variations that succeed these cognitive phenomena.

JUMP ROPE. Jump-rope, like Hopscotch and Jacks, seems inseparable from the play of girls. Here two turners put their companion to one of those tests of nimbleness and divination which are nearly universal in the Western world.

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PLAY ACTIVITIES provide for "information-seeking" behavior. We have known for a long time that play is a powerful inner force through which a child reaches out to interact with his environment involving movement and different sensory modes. He seems to learn more when he can move around, handle, and manipulate objects. Through such sensory-motor activities, he learns much about the properties of matter and finds ways to adapt to a complex environment through experiences related to cause and effect. Children who are prevented from having a wide range of sensory-motor experiences in these early years, due to illness, overprotection, or other reasons, are not likely to develop certain kinds of percepto-cognitive information in the same way later on.

The schematic drawing on the following page is an attempt to show the relationship of different play activities to perceptual-motor development and cognitive development that are necessary for success in academic subjects.

Both Bruner and Piaget have expressed the point of view that multisensory experiences obtained through environmental encounters with the concrete, three-dimensional world are important. It is through sensory experiences that children build a repertoire of "referents" that can be used for interpretation of new experiences. These referents form a basis for classifying information and the child indicates this by saying, "It is like . . ."

The many aspects of sensory experiences are processed through observing, comparing, classifying, ordering, interpreting, summarizing, and imagining. Each of these processes is an integral part of the way a child acts upon the stimuli he receives. As a child develops his language and is able to speak about what he sees, hears, feels, tastes, and smells, he extracts meaning from his experiences, which in turn helps him to build his cognitive structure in various ways.

As one can see from the schematic drawing, there is a circular relationship of the parts that make up the whole. Each is dependent upon other parts. Play activities provide the momentum through which a child can make a more balanced thrust toward maturation. It has been recognized for a long time that there is a close relationship between perceptual development and school achievement. If a person selects any one of the subject areas and asks the question, "What does a child need for success in this area?" he is struck by the fact that all of the above mentioned activities are basic to learning to read and write, for understanding science, social studies, and other areas.

An attempt will be made to describe in more detail the specifics of percepto-cognitive development and the activities that may be important in each area as shown on the schematic representation.

Percepto-Motor Skills

BODY IMAGE—*Laterality* is an internal realization that the body has spatially oriented parts such as a right and left side, a front and a back, which must be coordinated. A child must sense that he is an object in space and that he takes up a certain amount of space. The body may be used to measure space as a child finds out where he can reach, step, jump, and what he can get into, through, and around. Neuromuscular control is promoted as a child assumes various positions and when he propels his body through space in different ways. *Directionality* is an external referent by which the child learns to use the horizontal and vertical coordinates in the environment for relating himself to other objects in space. His eye must accommodate to space at various focal points such as near, mid, and far areas. Some children have trouble adjusting to the illusion of size related to distances. The airplane which is seen as large on the ground is explained to be "shrinking" when seen as a tiny object in the sky.

MOTOR PATTERNS—Running, jumping, skipping, creeping, throwing, and the like require balance, control, and muscular strength. Bones and muscles grow according to usage. The muscles are arranged in pairs and must be used to develop reciprocal action that is necessary for efficient movement. Many movements

are dependent on *hand-eye-coordination*. All kinds of manipulative skills involve the extension of the body through the use of tools. Certain occular patterns are a part of hand-eye coordination. Both eye focus and eye following are important. Where does the child look? Does the eye follow the hand in a rhythmic fashion? Many activities such as painting, pushing a small truck along the floor, steering a bicycle, bouncing, throwing, and rolling a ball provide for near focus and eye following patterns.

Perception of Space

MEASUREMENT—A child must acquire spatial accommodations for objects in relation to other objects in a variety of ways. Comparative forms require a referent when differentiation is made for how long, how high, how deep, and the like.

POSITION—Up, down, above, under, aside, below, in the middle are but a few of the words that are used to designate position of objects in relation to other objects. A child needs to learn how to organize objects and himself in space by the positions so designated.

Figure-Ground

FIGURE-GROUND is a term applied to the way a child selects a certain stimulus from a complex background by ignoring all other stimuli. Perception of form, texture, smell, and taste is dependent upon what a child picks out to attend to. Some parts will stand out as "figural" and details noted while the background will tend to fall back and lack clarity. Ability to concentrate is related to how long a child can attend to a specific configuration.

CONFIGURATION—A child needs to have a clear image or a basic configuration of an object if he is to make some differentiation of it from among other materials. Special problems may arise in figure-ground differentiation when items are embedded in extraneous detail or only partial figures are shown. Children are often asked to select a particular item from a picture with many other details. If a child does not understand how to use certain clues or he lacks a clear image of the object, the task may cause some difficulty for him. There is some relationship between motor development and figure-ground differentiation because it has been found that children score poorly on figure-ground if their motor development is poor. Language disorders may arise, too, from inability to hear sounds distinctly which is another form of figure-ground differentiation.

SYMBOLIZATION—A child needs to have some experience with concrete objects if he is to fully recognize their symbolization. Some children have difficulty in recognizing specific symbols due to inexperience in handling, seeing, or hearing. Painting is an activity that is particularly useful for learning symbolization. Through painting and drawing, a child may learn that he can represent the three-dimensional world through line and form and thus develop his own symbols. Clay is another medium that may be used for this purpose. When a child makes his own symbols, he can better accept the symbols of mathematics and those used to represent sounds for reading.

Whole-Part Learning

Learning to see the parts or elements that make up the whole is related to reading and other academic skills. Young children tend to see the whole rather than the parts although some children may see some small detail. Piaget speaks of this tendency as "centration" or, in other words, the child tends to become fixed on one element within the whole. On the other hand, if two shapes are similar but differ only on interior detail, the child may fail to see the interior detail as part of the whole pattern.

Reading, for instance, requires the skill of looking at individual letters and then at the word as a whole. Some children learn to identify words by configuration or shape of the word while others look at the elements or individual letters and then at the whole word. There are many activities that are related to whole-part learning. Construction of all kinds such as block building, woodworking, collage, painting are some of the activities that require the child to assemble or note discrete parts that make up the larger whole. Taking apart and putting together provide opportunities for learning to look at sequence and order of parts as they relate to each other.

Classification-Seriation

Classification and seriation are cognitive processes that result from a child's ability to perceive the attributes of various kinds of materials and organize them in some class or category. Many concepts in science and mathematics are dependent upon the ability to place objects in various kinds of categories or put them in ordered arrangements. Activities for matching and sorting of a wide variety of objects for size, shape, texture and the like are essential and involve perceptual acuity.

Language Development

Language and thought are closely allied. As children work and play they learn to talk about the attributes of objects and describe what they are perceiving. The English language, of course, has its own word order and the child learns to transform the syntax in various ways. Actual experience provides for ideas associated with the experience and helps to build meaning for the words he hears and learns to use.

Cognitive Development

Basically, cognitive development is composed of ideas or concepts. These may be both quantitative (many, more, few, numerical, etc.) and qualitative (warm, cold, rough, smooth, etc.). As children build concepts about their world, they build on past experiences and understandings. Bruner speaks about learning as "continual deepening of one's understanding . . . that comes from learning to use ideas in progressively more complex forms." [1] Learning proceeds in a spiral order. A child can learn something new because he has a schema into which the new information may be fitted.

The schematic drawing attempts to show the relationship of processes, perceptual intake, language and cognitive development in a circular fashion as indicated by the lines. Each part is related to the other.

Academic Subjects

It should be noted that the skills for academic learnings are the same as those that are found in the schema under perceptual development. It is important, therefore, to provide the kinds of activities that are important for the development of perceptual skills. It has been noted that if a child does not succeed in learning to read, for instance, he is referred to the remedial teacher who frequently has to work with perceptual deficiencies before the child can progress with the task of reading.

an experience center for elementary physical education

Today's typical American elementary school playground is either a haphazardly planned grassy area covered with dangerously crowded unmovable structures or a small paved area bounded by permanent basketball goals. Clumsy and expensive equipment usually occupies much of the prime teaching space, severely restricting the activities the area was designed for.

Generally, people planning elementary school playgrounds have little or no expertise in facilitating the learning experiences appropriate to that area, and no logical long-range plan for playground design. Too often, money for the development or improvement of playgrounds is secured from parent organizations, industrial concerns, and private or charitable groups who attach well-meaning but unsound limitations on the use of the funds.

The playground area typically includes swing sets, slides, see-saws, sandboxes, and some type of motion apparatus such as a merry-go-round. These structures are heavily rooted in cement and are often located too close to each other for either peace of mind or safety of body. Even if these pieces of equipment pacify the children during recess, they provide few opportunities for physical development.

Because of the increased national concern for the well-being and education of children, school administrators are asking physical educators to guide the development of playgrounds for instruction in physical education. The primary objectives of physical education for elementary children include physical growth and physical fitness; the development of

JANE B. MOORE is associate professor and ALETHA W. BOND is assistant professor in the Department of HPER, Auburn University, Auburn, Alabama 36830. JANE COBB is illustrator for the Learning Resources Center of the School of Education at Auburn.

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basic movement skills, and self-awareness coupled with a sense of well-being. These objectives are predicated on the idea that if children learn to understand and control the many ways in which their bodies can move, they are more able to direct the actions of the body, resulting in increased confidence in work and play. These objectives require a combination of adequate playground space and sufficient instructional time.

The physical education experience center is a playground designed to achieve the purposes of elementary physical education and bring instruction in physical education into closer alignment with the other experiences in the school program. The experience center is divided into three areas—the developmental area, the creative area, and the all-weather area. This experience center can be partially constructed from materials already available in the school plant or surrounding areas. It can also be developed gradually, one area at a time, or as rapidly as a school's budget allows.

The Developmental Area

By different methods of grouping and the early establishment of a traffic pattern, an innovative and creative teacher can easily plan for the developmental center to be used simultaneously by large numbers of children.

The equipment in this area is constructed over a grassy surface, with sand beneath the apparatus. The basic components of fitness and movement, such as strength, flexibility, balance, and coordination, determine the design and selection of certain pieces of equipment in this area: horizontal bars, traveling and stationary rings, turning bars, walking boards of different heights, the jungle gym, and tires in groups of six or eight set in cement or partially buried.

One of the most versatile and valuable pieces of equipment for the developmental area is a sturdy frame with adjustable hooks at the top. This frame is relatively inexpensive in view of its potential for providing a tremendous variety of developmental experiences. Cargo ropes, climbing ropes, swings, and rings of different lengths are just a few of the attachments that can be used on this piece of equipment. The fact that the attachable equipment is portable makes this idea especially attractive.

The Creative Area

Movement exploration has become a universally accepted method for developing basic movement patterns in elementary school children. One of the first priorities for a physical education program of this type is an open, grassy area for movement experiences. The creative area serves the simplistic yet functional purpose of stimulating imaginative and creative play by children. A variety of inexpensive equipment such as balls, hoops, wands, beanbags, and egg cartons can be used for activities in this area. Less portable additions to the center include boards, stepping stones, boxes, and tunnels. Rhythmic activities are especially suitable as the child improvises expressionistic patterns of movement. The natural setting of the creative area stimulates the development of more creative endeavors.

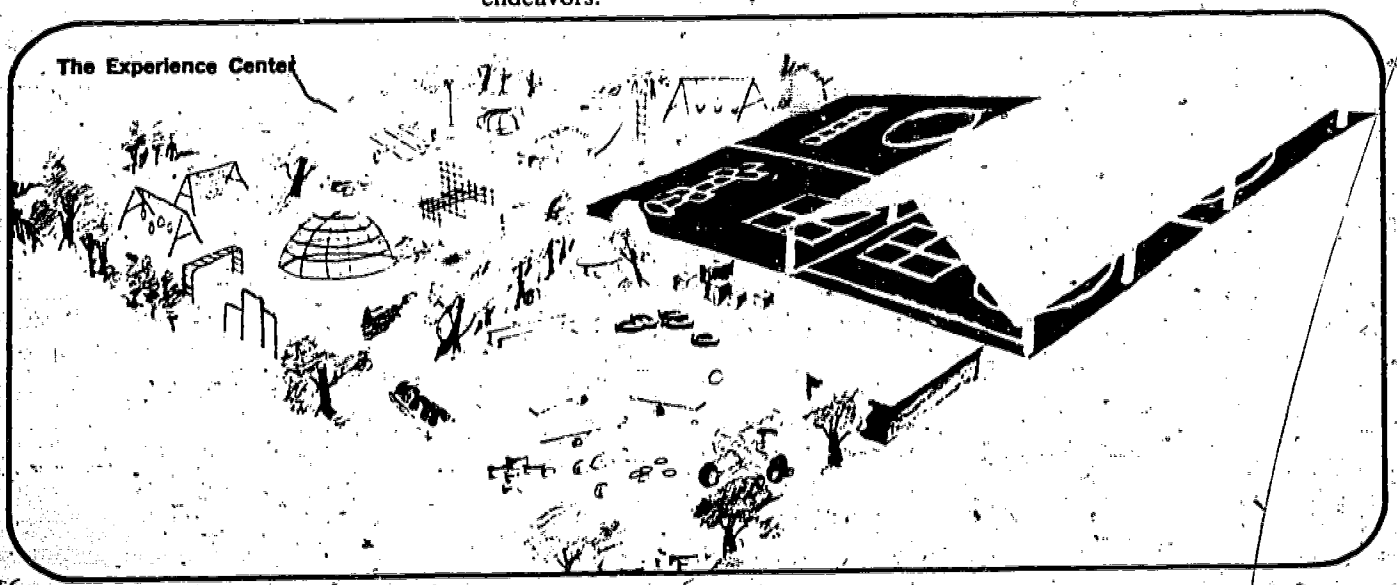
The All-Weather Area

This area requires the highest initial expense because it needs an asphalt surface, yet in some sections of the country it could be the most useful area due to climatic conditions. One possible solution to reduce the necessary financial investment would be to ask city officials to lay the asphalt when nearby streets are being resurfaced.

The markings on the asphalt surface are of prime importance to instructional and educational activities. Suggested markings include hopscotch, four-square, various sizes of circles (one with a double ring, one with geometric figures inside the circumference, a big circle, and a smaller circle), ladder-type markings, and several straight parallel lines. The circles and the lines make it easier to arrange the children in instructional formations and can be used for relays, chasing and fleeing games, basic movement skills, ball and rope routines, and space orientation. Some of the markings, such as the circle with the geometric figures, are designed to enhance relationships with academic areas of learning. The lines can also be used for rhythmic activities and many games of low organization.

Dancing, lead-up games for sport skills, rope jumping, and other movement experiences can also be held on the paved area. Portable standards for skills, drills, and lead-up activities to team and individual sports may be added but are not absolutely essential.

The Experience Center

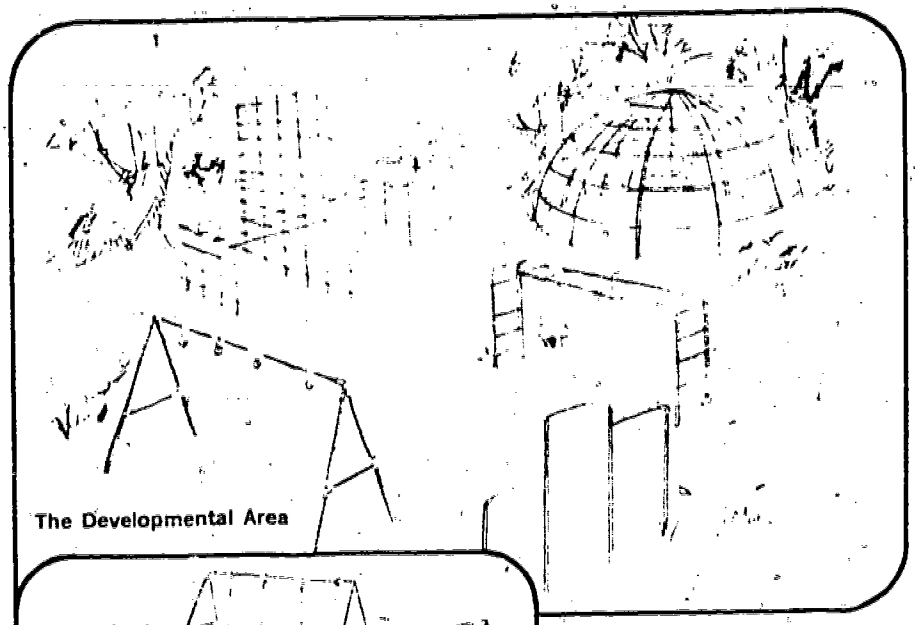


One useful addition to any paved section of a play area is a multi-purpose shelter, which greatly extends the area's capacity and potential for instructional use. One of the shelter's primary functions is to provide protection from inclement weather, allowing physical education activities to be scheduled with no dependence on external weather conditions or time of day.

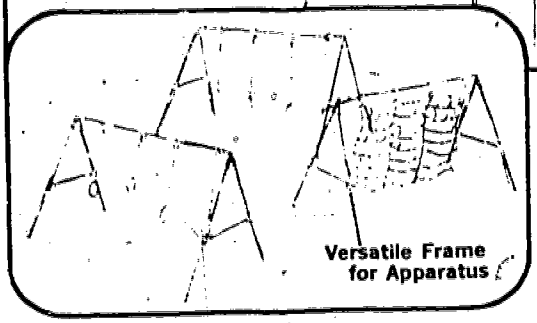
In the early stages of planning and developing an instructional play area, some type of storage facility is indispensible. This facility should be sturdily constructed and anchored, lockable, and accessible to both the black-topped and creative areas. The high capital outlay for a storage facility is balanced by its ease of access and by the reduction in maintenance, repair, and replacement of stored equipment. Most of the movement exploration equipment, any portable standards, nets, tumbling mats, jump ropes, cargo ropes, climbing ropes, rings and swings, a portable chalkboard, batons, utility hopscotch markers, parachutes, tires, hurdles, balance beams, record players, and other audiovisual equipment can be stored in this facility when not in use. An electrical outlet on the outside of the storage facility further increases its potential value for instructional purposes.

Updating Existing Playgrounds

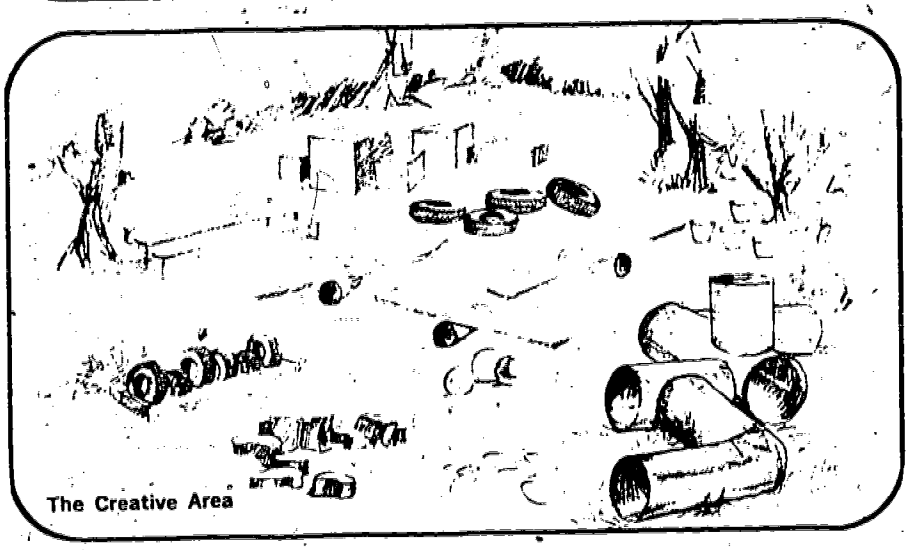
Not all existing elementary school playgrounds are old-fashioned and incapable of providing opportunities for educational activities. However, the possibility of adding to or altering previously established playgrounds in order to greatly extend the area's potential for the instructional program should not be overlooked. Many schools already possess parts of the basic elements for providing stimulating and cohesive experience centers. For example, a tarred basketball court can be easily adapted for a greater variety of purposes by adding some simple and inexpensive markings. An old swing set can undergo a metamorphosis by placing adjustable hooks at the top for a multiplicity of uses. Innovative, courageous thinking in combination with a background of playground expertise and a thorough understanding of elementary physical education objectives can create a playground atmosphere that encourages that rarity, the teachable moment. □



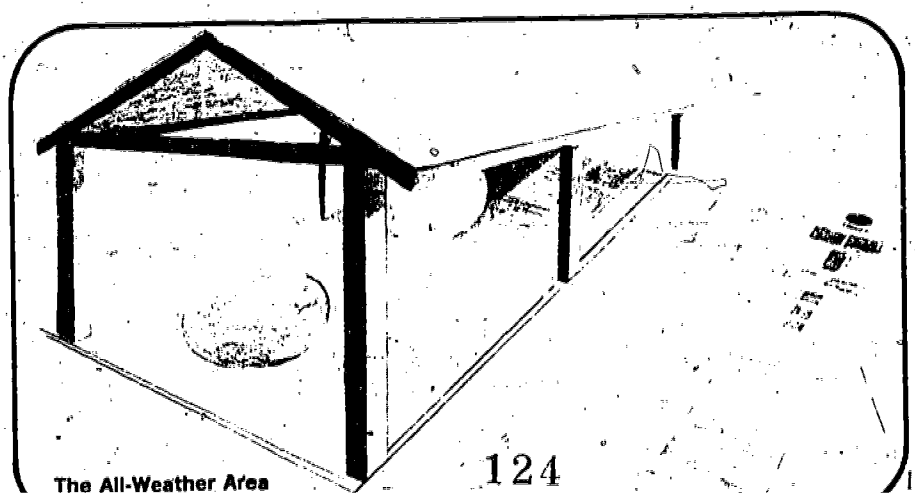
The Developmental Area



Versatile Frame for Apparatus



The Creative Area

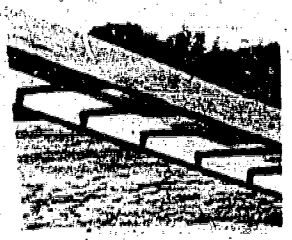


The All-Weather Area

inexpensive equipment from recycled materials

As part of a movement education course at the University of Delaware, college students constructed an outdoor playground to present a series of developmental movement experiences for young pre-school children. Selected power tools (sabre saw, circular saw, and drill) were available to the students. Safety goggles were required for all students operating power tools. A large power tool manufacturer provided an instructional and practice session and the local section of the National Safety Council provided programs and motion pictures on the use of power tools. The outdoor play equipment that the students designed and built is shown here.

1 *Climbing Frame.* Young children climb on narrow, stable surfaces at varying heights above the ground. The frame is constructed of discarded lumber which has been nailed together with supports sunk into the ground.



2 *Spool and Ladder Jungle.* Young children climb on surfaces of varying sizes and heights from the ground. They may also suspend their bodies, using a hanging arm support. The spools were free from a local company which purchases large quantities of wire. A salvage company specializing in destruction of unwanted buildings contributed the posts. The ladder was made from discarded lumber and broom handles.

3 *Barrels and More Barrels.* Barrels, singly and in groups, stimulate creative movement and climbing experiences. The barrels were free from a local industry. Groups of barrels are held together with bolts, nuts, and large washers.

4 *Swinging Bridge.* Here is a large, unstable surface for crawling and walking patterns of locomotion. Tires are placed under the bridge to keep the rope from stretching. The bridge is constructed of discarded lumber, posts, rope, and tires.

5 *Round-and-Round.* This merry-go-round, made from a discarded metal industrial spool and lumber, gets pairs and groups of young children to coordinate their movement efforts to reach a desired outcome. The center nut may be adjusted to vary spinning resistance. The spool-post was sunk seven feet underground using a borrowed commercial post digger.

6 *Slanted Stumps.* These provide stable, separated, slanted surfaces for the development of young children's locomotion and jumping patterns. The stumps, free from a tree removal service, are sunk one foot in the ground and topped with non-skid carpet.

7 *Sunken Tires.* These are stable, separated, narrow surfaces for the development of young children's locomotion and jumping patterns. The tires are sunk half way into the ground. Tires are free from most commercial tire specialty stores.

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MARCELLA V. RIDENOUR, formerly with the University of Delaware, is now an assistant professor associated with the Biokinetics Research Laboratory, Temple University, Philadelphia, Pennsylvania 19122.

Sports and Competition for Children

Competition for Young Children — A Re-Look

Marion Alice Sanborn, Shaker Heights Schools, Shaker Heights, Ohio

Have athletics for children changed in the past 10, 20, 30 years?

Yes, in intensity.

Yes, in the kinds of sports played.

Yes, in organization.

Yes, in the emphasis on winning.

I have been forced to look at this revolving, ever-present issue more than once during my professional career. While I am sometimes swayed by enthusiasm and impressed by a few really good programs that I have seen, when it comes to the question, "Should or should not elementary schoolchildren engage in highly competitive sports?" I usually come to the same conclusion.

If athletics are good for children, then let us allow everyone an opportunity to play a game representing their school. They should have the chance to practice with their team, to get to know the players on the other team and come home knowing they did their best.

Let's provide a team for every child, then make the teams small enough so that every youngster has a chance to play in every game, and let's see that that rule is enforced. Every youngster should have to play a third to a half of each game. There should be no variation of that rule. Let's not have a child prepare for a game, then sit on the bench for the whole time. The motto "every kid on a team" does not need to be a hollow promise. "Every kid plays every game" is the kind of promise we shouldn't mind making — and keeping.

It's the Leadership That Counts

Organization and administration set the limits. Given reasonably sound planning and provisions, there's only one thing that matters after that. Gladys Palmer said it years ago — "It's the *Leadership* that counts!"[1] Programs can have identical provisions, identical numbers of participants, games, contests, whatever. One can be a great success from the standpoint of participants, families and coaches. Another can be misery for most of those involved. The quality of the experience is determined by the quality of the leadership.

Winning Isn't Everything.

Good leadership will not make winning the only goal. Winning isn't *everything*. What does that mean? It means the game, the contest, the pitting of skill against one nearly equal, perhaps the moment of truth when you find that you either are or are not superior to your opponent — at least that day in that situation. Winning isn't everything. There is comradeship; there is the intensity of all-out effort; there is strong resistance to what you want to do; there is respect for opponents; there is the desire to beat the opponent at her or his best; there is satisfaction in a game well played. There is a joy in winning and there is no humiliation in defeat.

To Vince Lombardi, winning wasn't everything. It was the *only* thing. To many of those who coach young children, winning isn't everything — it is the only thing. Kids are coached this way. Overemphasis on athletics? No! Overemphasis on winning.

Fortunately, someone has seen through this madness. Our keynote speaker, George Leonard, writing in *Intellectual Digest (1973)* says, "If winning isn't everything, it's the only thing, then, the only thing is nothing — emptiness; the nightmare of life without ultimate meaning. This emptiness pursues us wherever 'winning out' is proclaimed as God."

Sport is NOT Play. Huizinga (1950) says: Sport has become profane, "unholy" in every way and has no organic connection whatever with the structure of society . . . However important it may be for the players or spectators, it remains sterile. The old play-factor has undergone almost complete atrophy . . . In the case of sport we have an activity nominally known as play but raised to such a pitch of technical organization and scientific thoroughness that the real play-spirit is threatened with extinction.

Why does Huizinga place such importance on the play spirit? Quoting further:

> Real civilization cannot exist in the absence of a certain play-element, for civilization presupposes limitation and master of the self, the ability not to confuse its own tendencies with the ultimate and highest goal, but to understand that it is enclosed within certain bounds freely accepted. Civilization will, in a sense, always be played according to certain rules, and true civilization will always demand fair play. Fair play is nothing less than good faith expressed in play terms. Hence the cheat or the spoilsport shatters civilization itself. To be a sound culture-creating force this play-element must be pure. It must not consist in the darkening or debasing of standards set up by reason, faith, or humanity. It must not be a false seeming, a masking of political purposes behind the illusion of genuine play forms. True play knows no propaganda; its aim is in itself, and its familiar spirit is happy inspiration.

It is through play that children learn how to function successfully in society. Play is the work of children. Competitive sport has been so distorted that it can no longer be classified as play. The players might argue this point, mistaking intensity in sport for the joy of play. Intense it is; play it is not. Indeed, when we meet a player who is obviously out to enjoy the game, we point the finger and say, "that player is not serious enough," or "that player does not care." When winning is everything, we want our players to be serious.

Campbell (1974) asks us to compare a street baseball game where the kids are enjoying themselves, laughing and having a good time with a Little League game in which there are "tense kids, shouldering the responsibility of dozens of adults, making good for dad and mom, for the team, the coach, and the community. Those adults have effectively destroyed not only childhood; to an always unknown degree they have distorted that child's entire life."

If you don't believe there's *distortion*, read "The Case Against Little League Mothers" by Robbins (1969). There's a lot of meat in the article; one statement particularly stood out: "But as soon as we got into the Little League, we all stopped laughing. The atmosphere is pretty grim . . . The tension is thicker than mud at home plate."

You might have read the interesting article, "Competition: the Star-Spangled Scramble," by Nelson and

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Speech given at AAHPER convention, March 15, 1975.

[1]Gladys Palmer, The Ohio State University, 1948.

Kagan (1972) in which children were given an opportunity to compete for prizes or to cooperate for prizes. Anglo-American children chose to compete even when it was obvious that cooperation would have brought them more prizes, and in some cases they denied themselves prizes in order to deny prizes to their companions.

In today's world can we afford to have people who are more concerned about winning than they are about their own or others' welfare? What kind of people are we? What kind of children are we raising? What kind of adults do we want our children to become? What are we doing to our children?

A Possible Alternative

Fifty to one hundred years ago adults did not have to concern themselves with children's games and children's play. But distortion has crept in, and I believe we have a responsibility not only to give the game back to the children, but to teach them how to play.

Movement education holds great promise for removing adult interference and allowing children to gain maximum benefit from healthful movement experiences. One thrust of movement education — educational games — utilizes the creative talents of children (and teachers) and allows each child to participate at his or her own level of skill. The teacher frequently gives some minimal rules, such as:

You are to keep the ball in the air and you are to work across a rope or net, OR

You may use one basket and as many balls as you decide.

The children can then get together in their own small groups and decide what further rules they will play by.

There are those who justify participation by children in competitive athletics because it will help them learn how to survive in a dog-eat-dog world. These people are overlooking several things:

1. Children are not prepared to cope with adult-style competition. They are capable of competition at their level — the natural competition in the give-and-take of the child's world.
2. Children need support from adults, rather than imposition and interference. When adult standards are imposed from above, the play life of children, including their competitive activities, becomes distorted.

I have long believed that elementary physical educators have a responsibility to teach children appropriate games and behavior for use on the playground. Until the movement education approach to games with its emphasis on child-initiated games was introduced, this had been a frustrating experience for me. There has always been the cheat and the spoil-sport who don't even pretend to play by the rules and as Huizinga says, shatter the play world itself. When students work together to make up their own rules and are allowed to adjust rules to unforeseen circumstances, there is greater allegiance to rules, less cheating and less spoiling of the sport. This is the direction I think we have to go in children's play. Toward self-made games and rules. Toward more autonomy for the children so that when they're tired, hurt, no longer having fun, they can stop.

This does not mean license to turn them loose. It means a different kind of play with a great deal more guidance from adults, but less interference and more support.

(For more information on this type of game, I refer you to the article "Games and Humanism" by Riley (1975) and to the book *Games Teaching* by Mauldon and Redfern (1969).)

This is what I would substitute for adult-imposed sport. This is what I would propose to gradually take the place of adult-organized leagues. Not tomorrow. We couldn't do it tomorrow. But let's give the children back their play. Let's give them back their childhood. Let's let them have *their* fun.

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Volleyball for Children

The main reason that "power" volleyball has been so slow to develop in the United States is that the basic skills and tactics essential to the sport are usually not taught to children in the elementary schools. It is much more difficult to teach older students and adults because they are self-conscious and afraid of looking uncoordinated and generally inept. Volleyball techniques do not come easily to people whose sports background has not incorporated similar movements. Children readily attempt to learn the techniques of the dive and roll while adults have a fear of going to the floor to retrieve a ball. We have strong age group programs in all of the sports that our country is successful in on an international level. The Eastern Europeans and Asians dominate international volleyball because instruction is available at an early age and the interest among young people grows as they mature.

While teaching elementary school I have found that coordinated kindergarten children can learn to use the forearm pass. High ability second graders are capable of using the overhand serve and can put the ball into the opponent's court 8 out of 10 times at distances up to 30 ft. On the other hand, I have made the mistake of frustrating children during their initial training period by attempting to teach skills beyond their reach. Unless they feel successful and have fun while they are learning they will lose interest. Too much drilling without motivating lead-up games and tournaments can quickly turn into drudgery.

ALLEN SCATES is a physical education teacher with the Beverly Hills Unified School District and varsity volleyball coach at the University of California, Los Angeles, 405 Hilgard Ave., Los Angeles, California 90024. He was selected to the United States Volleyball Association All American Team five times and was a player on the USA team for three years. He has served as chairman of both the NCAA Volleyball Tournament Committee and USVBA Collegiate Committee. His UCLA teams have won seven National Championships including the 1970, 1971, 1972, 1974, and 1975 NCAA Championships. He coached the Men's Pan American Team and was head coach of the 1972 Men's Olympic Team. In 1974 he was the manager of the National Women's Champions, the Los Angeles Renegades. Portions of his book, Winning Volleyball, *have been incorporated into this article through the courtesy of Allyn and Bacon, Inc.*

Reprinted from *Journal of Physical Education and Recreation*, November-December 1975.

Lead-Up Games

After the International Volleyball Association developed "mini volleyball" in 1971, the Scientific Research Section of the Committee of Instruction and Popularization of the Japanese Volleyball Association carefully examined its possibilities. The Japanese have "taken a leading part in studying the volleyball rules for children and lead-up games that are considered a preceding stage of guidance to mini-volleyball."[1] In the course of study for volleyball in the elementary schools of Japan, students develop the capacities of catching and throwing as the first step in a progression to the fundamental technique of the overhand pass. The overhand pass is developed from the action of catching the ball in front of the body and immediately throwing it to a teammate over the net. The following stages are recommended by Hiroshi Toyoda, the Chief of Scientific Research of the Japanese Volleyball Association.[2]

1. Throw and catch the ball.
2. Hit the ball after bouncing it on the floor.
3. Hit the ball without bouncing it.
4. Do not catch the ball; at this stage the criteria for a held ball are not too severe.
5. Do not catch the ball; criteria for a legally played ball are nearly those of the formal game.

Although there are many stages and styles of individual training at each of the principal lead-up games described in this article, the main point to stress is to move quickly in front of the oncoming ball. When players reach the receiving area the front foot should hit the floor first and *point in the direction of the intended pass.* It is very important to maintain a low body position to stop with good balance. The stop is made with the lead foot slightly forward and the

trailing foot closing to maintain a balanced position.

The rules to the various lead up games which follow are those that have worked for me at the elementary and junior high school level. Each instructor can devise modifications of these and other lead up games to emphasize the fundamental techniques that need to be strengthened. It is important not to move too quickly in the progression of games or children will not experience success and feel that volleyball is too difficult for them.

1. Net Ball is played on a regulation court with a net or rope stretched across the center of the court. A team consists of six players or less when working with high ability groups of children; homogeneous groups may play with up to eight on a side. Any player puts the ball in play by throwing it over the net from the court or behind the court. The ball can be touched three times and must be caught and released quickly. Touching the ball two times in succession is a fault. If the ball flies out of the opponent's court or falls on the ground a fault is committed and the opponents receive a point. Balls that hit the net are always in play. A game consists of 21 points.

2. Newcomb is played on a regulation court with the height of the net from 5 to 7 feet, depending on the size of the children. The game is played with eight players or less, depending on their ability. This game appears in many physical education curriculum guides throughout the country and can be introduced in the second grade. Instructors may want to continue this game with low ability fifth and sixth graders. All balls can be caught and quickly thrown to a teammate or into the opponent's court. Volleyball rules are in force with the following exceptions:

a. The server may throw or serve the ball to put it in play.

b. The server may stand as close to the net as necessary to complete a successful serve.

c. A back row player cannot throw the ball over the net. This rule is not in force when playing with four players or less.

3. Modified Newcomb is like Newcomb in that the first and second ball can be caught; but the ball that is returned to the opponent's court must be hit in a legal manner. A freer handling of the ball is allowed.

The children line up in the M formation to receive the serve. The player who receives the serve may catch it and throw it to the setter in the middle front. The setter sets or lobs the ball with two hands in an underhand toss to one of the spikers, who hits it over the net using any legal technique. The defense is also allowed to catch the first and second ball as long as the ball is hit into the opponent's court.

Hitting the Ball After Bouncing It

1. Bounce Volleyball is played on a regulation court with six players on a side. The ball is caught, bounced, and hit once in a regulation manner. The ball is still in play if a teammate catches the ball. The server has two chances to hit the ball over the net. Weaker servers may stand as close as 20 feet from the net.

2. Option Volleyball is almost the same as Bounce Volleyball. A player is allowed to hit the ball with or without bouncing it. The ball must be returned to the opponent's court within three touches. A game is 15 points, with the teams changing sides at eight points.

3. Volley Tennis is played on a tennis court with a tennis net. A team consists of six to nine players. The ball is served from behind the end line and one assist can be made before the ball crosses over to the opponent's court. Although players are not allowed to catch the ball, they have the option of hitting it on the fly or letting the ball bounce once before playing it. The ball must be returned to the opponent's court within three touches. This is a good game to emphasize the spike.

Modified Volleyball

1. Sitting Volleyball teams consist of nine players or so, who all sit or kneel on the floor. A rope or net is drawn across the center of the court. The game can be played on mats and the size of the court is determined by the number of participants. Net height can be varied from group to group dependent upon their strength. Service is made from behind the end line, using an overhand pass. Rotation can be used if desired.

2. Keep It Up is played on a regulation court with four teams of three to six players. Each court is divided perpendicularly into two courts so that there are two separate courts on both sides of the net. A front line

When receiving the ball it is important to maintain a low body position as demonstrated by this fifth grader. Notice that her feet are spread further than shoulder width apart with the forward foot pointed in the direction of the intended pass. The knees are bent at approximately 90°, as are the hips.

yball games to use
left to right, are
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thriples volleyball.

the first pass is the key to the offense, better sets and spikes also increase significantly. After the serve is received the boundaries extend back to the regulation 30 ft. by 60 ft. court. The children play on a net that is lowered until the average child in the game can touch the top of the net with outstretched fingertips from a standing position. This lowered net encourages spiking. Regulation rules are followed, but the criteria for handling the ball are determined by the capacity of the players.

4. Bonus Volleyball uses the same net height, serve, and criteria for ball handling as Underhand Serve Volleyball. Points are awarded in the normal way with the following exception: if a team scores using a pass, set, and spike, they are awarded two points. A game is won when a team scores 21 points.

5. Spike-it Volleyball was developed to teach defensive positioning. The ball is put into play by the attacker who hits the ball out of the "Spike-It." Each member of the at-

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ni Volleyball

The Trainer Commission Committ- on Mini-Volleyball of the Inter- tional Volleyball Federation de- oped rules recommended for adop- n by all national volleyball associ- ons in 1971.[3] These rules are for ildren from 9 to 12 years of age d are played by two teams of three ayers each. The rules enable chil- en to grasp the technique and the mentary tactics and capabilities ential to the sport, such as swift- ss, skill, jumping ability, and quick ponse, and they are able to learn this while actually playing. The les established for mini-volleyball re based on relevant experiences d scientific publications of many untries.

ule Changes[4]

1. A team consists of three players; o substitutions per game are per- ssible.

2. The height of the net is 2.10 eters (approximately 6′ 10″) for th male and female teams.

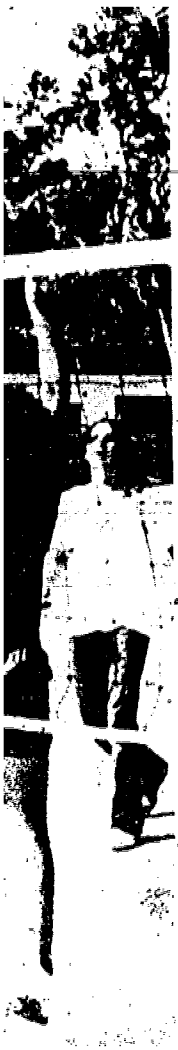
3. The players of ea tion themselves within so that there are two fr ers and one back-line time the ball is served. the ball the back-line pl spike the ball from witl area or attempt to hit t attack area unless the the height of the net.

4. The players of a their positions upon ball for service. The ri player becomes the ba and the left front-line p the right front-line play

5. A team wins the scores at least 15 poir two point advantage ov ents (15:13; 16:14; etc.)

6. A team wins the r has won at least 2 sets (2:0 or 2:1).

7. The match is co referee who takes care are not violated and en match is played correctl



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ing with principles of fair play. The referee has a teaching function.

8. The playing area is 4.5 meters wide and 12 meters long. A net divides the playing area in two equal parts. The spiking line is 3 meters from the center line. [Author's note: 4.5 m by 12 m is approximately 14′ 9″ by 39′ 5″. Since most school volleyball courts have badminton courts marked within their dimensions I suggest you use badminton courts for mini volleyball. This gives you an area of 20 ft. wide by 44 ft. long with a spiking line 6′ 6″ from the center line. I have used badminton courts for thriples volleyball with children up to the seventh grade with good results.]

Offense

Since the back line player cannot spike in the official version of the game it is usually advantageous for the front row players to receive all the serves and have the back row player penetrate to the net to set. This allows the offense to run with two attackers. If players cannot pass accurately this system does not work.

I prefer to disregard the rule that prohibits spiking by the backcourt player and use a different formation and rotation. We place two players deep in the court to receive all serves.

The third player is placed at the net in the center of the court and has no receiving responsibility. This player's job is to set all passes for one of the other players to spike. All players are allowed to spike and block and players rotate from left back to setter to the right back or serving position.

Defense

Most children under 13 years of age are not capable of strong spikes. Therefore it is often best to keep all three defenders back to receive the spike. This leads to long rallies and great concentration and pride in digging techniques by the participants. The enthusiasm that is evident when children complete these long rallies is very stimulating for the participants and spectators. When players are capable of strong spiking they should be opposed by one blocker.

Mini Volleyball in East Germany

About 1962 the East German Volleyball Federation began to assign some of their top volleyball coaches to work with children under 12 years

of age. They were soon confronted with arguments that power volleyball techniques were too difficult to teach to children because of their insufficient physical development. However, their immediate success caused mini volleyball to spread throughout Europe.

Today volleyball is an integral part of many national physical education programs; it is particularly strong in Eastern Europe and Asia. Teachers and coaches begin teaching mini volleyball to children who are eight and nine years old. This experience would be difficult to duplicate in the United States since the overwhelming majority of children do not receive regular instruction from a physical education teacher until they are in the seventh grade. The chairman of the International Volleyball Council of Coaches, reporting on the East German Mini-Volleyball championships, states that "children possess already astonishing technical and tactical achievements and their enthusiasm is enormous."[5] He gives several reasons for this quick and successful development. First, technique is acquired quickly before puberty when the requirements of the game are modified to their possibilities. Second, the essential physical qualities of speed, mobility, and agility exist at this age or quickly develop. Third, children are enthusiastic about the game and its competitions. Fourth, the rich emotional content of mini volleyball has strong attraction for children.

Children who train twice a week can learn the fundamental techniques in two or three months and after four or five months training can successfully participate in formal competition. Since mini matches are the best two out of three games, children play in several matches in the same day without overstraining themselves. "For children, mini volleyball is a complete, whole game, a struggle full of sense and joy, an event and in the same time a lesson. It is of paramount importance to stimulate the interest and the enthusiasm, to learn the movements of the game, to develop the physical qualities essential for volleyball both for all mass games of entertainment and the elite volleyball."[6]

Junior High School Volleyball

In the physical education class, intramural program, or extramural program at the junior high level, the student should have an opportunity to become a complete player. This means that all players should get to set and attack. Under our present system players are labeled setters or spikers and often fail to develop the fundamental techniques inherent in the other position. On our national teams there are setters who are poor attackers and spikers who are poor setters. In their development they missed the opportunity to become complete players.

At this level of competition one position on the court should be designated as the setting position. For example, if a team is running a two hitter attack every player who rotates to the middle front position should set the ball for the side out attempt. If a team uses a three hitter attack the player in the right back position should set. This 6-6 system of offense forces all players to develop fundamental volleyball abilities. On defense the player should also play each of the six positions.

During the summer I have conducted coeducational volleyball classes which meet daily for two hours for a five to six week period. The children are entering grades six through eight and the first 24 students to sign up for the course are accepted without regard to ability.

We usually spend the first 20 minutes reviewing the last day's progress and establishing points of emphasis for the daily lesson. I have found that it is best to spend this time in the classroom where the students are not distracted by playground activities. The next 30 minutes are spent on drills with no more than two or three students to a ball. After the players learn a sufficient number of ball handling drills they should move from drill to drill rapidly so interest does not lag. Spiking and digging drills come last because these are the most satisfying and provide the best motivation as players start to become slightly fatigued. A ten to fifteen minute break is taken at this point to allow the players to get drinks and a snack if desired. Many students prefer to work with the ball during the break in unsupervised games of one-on-one or doubles. Others request help with certain techniques, particularly spiking. After the break I align the class into various teams on two to three courts depending on the daily lesson. Older boys and girls are often invited into the class at this stage to challenge the better players in doubles or mini volleyball while the majority of the class plays the other modified games. Homogeneous grouping only succeeds when playing with six on a side. Smaller games need to be grouped by ability.

Since we play on the blacktop the weather is a determining factor in the selection of the activity for the second half of the class. On particularly hot or humid days the students are divided into three teams so they can rest between games. We can play three games of underhand serve volleyball in 50 minutes, which gives every team two games. The more energetic players are allowed to play an unstructured game on the adjoining courts instead of resting. This type of practice is not designed to develop a school team, but rather to teach the fundamental techniques and instill interest in the sport.

In Eastern Europe and Asia children 12 to 14 years old train a minimum of 10-12 hours a week after school if they are representing a school team. Studies conducted by a prominent coach in Bulgaria indicate children are capable of playing a five game match at this age and "began at the following day their meetings in a physical state fully restored."[7] I have not been able to find similar studies in the literature, but my experiences with children of this age lead me to concur with the Bulgarian study. □

FOOTNOTES

[1] Hiroshi Toyoda, "Report to the Council of Coaches—FIVB," *Technical Journal* 1, no. 2 (1974), pp. 38-41. Canadian National Volleyball Coaches Association, Scarboro, Ontario, Canada.

[2] Hiroshi Toyoda, "Volleyball Coaching Seminar," *Technical Journal* 1, no. 1 (1974), p. 63. Canadian National Volleyball Coaches Association, Scarboro, Ontario, Canada.

[3] Horst Baake, "Mini Volleyball," *Technical Journal* 1, no. 1 (1974), pp. 36-40. Canadian National Volleyball Coaches Association, Scarboro, Ontario, Canada.

[4] "Mini Volleyball Rules for Children from 9 to 12 Years of Age," FIVB Trainer Commission Committee on Mini Volleyball, Leipzig, December 27, 1971. Translation obtained from Michael Haley, USVBA Chairman of Collegiate and Scholastic Volleyball.

[5] Baake, op. cit.

[6] Ibid.

[7] Thomas Chakarov, "Some Questions of the Maximum Possibilities of Playing of Children in Volleyball," *FIVB Bulletin* 49-50, March 1970, pp. 27-35.

intramural input

An Elementary Intramural Track Program

LARRY B. YAZEL is director of physical education and athletics, School Town of Highland Administration Center, 9145 Kennedy Avenue, Highland, Indiana 46322.

In the School Town of Highland in Indiana a highly successful elementary intramural sports program was initiated during the 1969-70 school year; the response was so overwhelming that the program was expanded for the 1970-71 school year. The elementary intramural sports program is in effect at all seven Highland elementary schools and is administered by five elementary physical education specialists and two elementary classroom teachers. The program is open to all interested boys and girls in grades 5 and 6. The program encompasses many different activities (softball, volleyball, newcomb, wrestling, floor hockey, tumbling, square dancing, basketball, etc.), but track is easily one of the most popular.

The spring intramural track program begins as early in April as the weather permits. It is run two days per week at each school from approximately 3:15 p.m. to 4:30-5:00 p.m. Most schools reserve one night per week for boys and one night for girls, but some use one night for grade 5 and one for grade 6. During the track meetings, the participants practice their events and are coached in much the same way as in a varsity track program. Interest in the elementary intramural track program is heightened each year by three special events: exhibition races, all-school meets, and the all-city meet.

The exhibition races are elementary relay races run as a special event during regular varsity track meets at Highland High School. It is a real thrill for elementary youngsters to run at a varsity track meet in front of a crowd! In 1971 each elementary school entered a team in three exhibition races: a grade 6 boys 440 relay race, a grade 5 girls 440 relay race, and a grade 6 boys 880 relay race. Ribbons were awarded for first through seventh place, meaning that every participant received a ribbon regardless of where the respective teams finished.

An all-school track meet is held at each school around the middle of May. Every boy and girl in grades 5 and 6 who has been attending the practice sessions is eligible to enter two or three events. The all-school meets are run off in either one or two sessions, using faculty volunteers to assist the regular track coach with the administration of the meet. Winners in each event receive award ribbons and automatically qualify for the all-city track meet. School records are kept year by year to further strengthen student motivation. The events run in the all-school track meets are:

Grade 5 girls—30, 60, 100, 220, broad jump, high jump, softball throw, 440 relay, & 880 relay.

Grade 6 girls—same as above plus a 330.

Grade 5 boys—same as grade 6 girls.

Grade 6 boys—same as grade 5 boys except 440 replaces 330.

The all-city track meet takes place during the third or fourth week of May and is the zenith of the elementary intramural track program. The individual winners of each event at each school are all brought together to compete. Team scores are kept, and competition is as keen as at any varsity track meet. The junior high and high school track coaching staffs assist with the administration of the all-city meet as do GAA members and sponsors from both secondary schools in Highland. The all-city meet is comprised of a total of 39 events in the four divisions. The meet can be run off in approximately two hours if it is well organized. Ribbons are awarded to the first four places in each event, and the meet is scored identically to a varsity invitational track meet. All parents, faculty, and students are welcomed as spectators, and no admission fee is charged. Some 600 boys and girls actually participated in the elementary intramural track program the first year, and the all-city meet was viewed by some 500 specators. We feel that these numbers help substantiate our claim that an elementary intramural track program can be a huge success.

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intramural input

Community Involvement in Elementary School Intramurals

MICHAEL J. LANNON is director of physical education for Chester-Andover Elementary School in Chester, Vermont 05143.

Two years ago, traditional physical education classes at Chester-Andover Elementary School consisted of soccer, basketball, and softball led by two part-time teachers; intramurals were almost nonexistent except in those sports. The administration and school board saw the need for a stronger physical education program and recognized the values of a quality intramural program. The community agreed that the children—380 students K-6—needed a coordinated program of physical education and intramurals. The writer was hired as a physical education instructor to help produce a quality program.

To implement the program, a four-year master plan was devised. The plan was divided into two two-year plans and subdivided into four one-year plans. The plan was designed to have the community involved in the intramural program at the end of the four years.

The program began with a $500 budget. This was split up between a six-member intramural staff—teachers willing to sacrifice time and money to see the program move forward. The need for more money was evident; the problem was to convince the community of the need. Parents and even children needed to be shown the values of intramurals.

The plan for the first year included an assessment of the community, school, and parental attitudes toward intramurals. We felt it necessary to find out all we could about the community. We sought to involve the people of the community—meeting community leaders and listening to their needs, especially in the area of youth problems; learning who were the hard workers and the active clubs and organizations of the town; seeking out local reporters and sports writers and keeping them informed. Most important was youth involvement. We found that activating the program and becoming known as doers of good things was effective. When the youth began to notice our program, parents noticed too. When parents noticed, the whole community began to stir; the values of the program had been partially sold.

As an example of community involvement, the first two-year plan called for reduction of the traditional sports program and introduction of a more varied and exciting intramural program. In fall 1970, in addition to boys soccer and girls speedball, we offered intramural programs in flag football, in several coeducational activities—cross-country, four-squares, hiking, and riflery—and coeducational activities in which parents also participated—advanced fitness and turkey run. Added to the usual boys and girls basketball on the winter schedule were pull-up tournaments, boys wrestling, and girls ballet; coeducational gymnastics, dance, and skiing; and coeducational square dance in which parents also participated. To softball and baseball in spring we added co-ed programs in track and field, volleyball, golf, and tennis; and co-ed swimming with parents also participating. In fall 1971 we added co-ed programs in archery, bowling, and shuffleboard; and volleyball, which was coeducational with parents. For winter we added co-ed snowshoeing, billiards and pool, and darts; co-ed and parents ping-pong; and boys street hockey. In spring there was co-ed badminton and fishing and co-ed and parents bicycling and camping.

Students, parents, teachers, and community have responded with growing enthusiasm. For example, the two-mile road race in the fall cross-country program has become a community affair with a police escort and the town fathers' support. The race is run down Main Street with all traffic stopped and businessmen cheering as another year of intramurals begins. Contestants increased from 25 the first year to 45 for the second annual race; spectators increased from a handful to over 50. The race is conducted by parents—who were absent from the first race—and three teachers; parents serve as timers, scorers, and officials.

Participation in the basketball program has increased from 39% of the student body to an overwhelming 93%. In the area of track and field, 96% of the students participated in the field day activities in 1971. Nine percent of the girls take ballet, 33% of the students square dance, and 15% of the boys wrestle. The parents are becoming involved in all these programs.

A major goal for the new physical education instructor was to strengthen both the physical education program and the intramural program. It seemed a good idea to financially combine physical education overall fitness activities with intramural carry-over activities. Gymnastics was selected as the money-producing part of the program and as the medium for demonstrating the values of a program involving all the students.

The fall inventory showed little in the way of gymnastics equipment—one set of still rings, three ropes, three mats, and a side horse. Unused parallel bars, springboard, homemade vaulting box, and more mats were borrowed from another school. Replacements for the borrowed pieces were requested in the budget; a set-back came when physical education budget requests were cut.

An all-school gymnastics show was planned for early spring of the 1970-71 school year. Shortly after the start of the fall intramural program, several students were shown some simple basic tumbling. Each student was to instruct a few more students, who after learning the skill were to teach others. The boys and girls organized themselves and began to improve their skills. The physical education tumbling and gymnastics unit is only eight weeks long, but the students came to practice before and after school and at recess. Everyone seemed to catch the gymnastics fever; this was a program new to the school, and the students saw immediate results in their own bodies. Fitness scores began to double. Parents and the community began to notice students cartwheeling to school.

To promote the program, the school administration allowed the children to go on tour. The 66 boys and girls selected to represent the school polished and perfected their skills. The touring team performed in front of 1,000 people.

After the tour, the team joined all the students in the school for a home show in front of their parents. Over 1,000 parents came to the two-night show; they were amazed at their children's performances. Their favorable comments indicated they were sold on the program. We collected $100 in the donation boxes at the front door. Advertising by local merchants in the brochure for the show brought us another $110.

Confident of the community's favorable reaction to the gymnastics phase of the intramural program, we launched a house-to-house canvass to raise

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money for new parallel bars and uneven bars conversion kit. The equipment would be used in physical education classes, adaptive programs, programs for the perceptually handicapped, and the intramural program. Within two weeks 98 people had contributed $1,200. The community had obviously accepted the program.

Since that first uphill year, support of the program has grown tremendously. Budget funds have purchased a new side horse, balance beam, portable rings, horizontal bars, and a 42'x42' floor exercise mat. A substantial increase in salaries for the intramural staff has been worked for and approved. The gymnastics program has expanded; the touring team performed before over 6,000 people during the 1971-72 season, and proceeds from the home show tripled over the previous year. The intramural gymnastics program is now a continuous operation. Parents are waiting to take part in the intramural program, not as spectators but as participants. The community is trying to include many of these activities in their summer recreation programs. The same kind of program is wanted at the high school level.

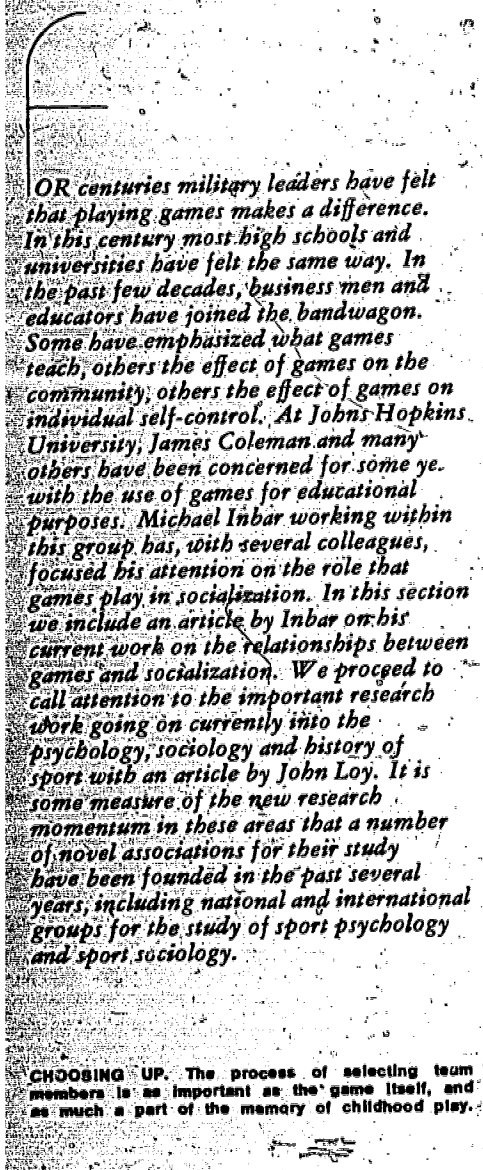
The following suggestions may be helpful in starting this kind of program in your school. Survey the needs of the community. Find one activity which can grow quickly and be a potential money maker. Involve all the youth. Be a hard worker, full of self-confidence. Try to get coverage by local newspapers, radio, and television.

The Socialization Effect of Game Playing on Pre-adolescents

by Michael Inbar

DOES PLAYING GAMES AND SPORTS MAKE A DIFFERENCE

FOR centuries military leaders have felt that playing games makes a difference. In this century most high schools and universities have felt the same way. In the past few decades, business men and educators have joined the bandwagon. Some have emphasized what games teach, others the effect of games on the community, others the effect of games on individual self-control. At Johns Hopkins University, James Coleman and many others have been concerned for some ye. with the use of games for educational purposes. Michael Inbar working within this group has, with several colleagues, focused his attention on the role that games play in socialization. In this section we include an article by Inbar on his current work on the relationships between games and socialization. We proceed to call attention to the important research work going on currently into the psychology, sociology and history of sport with an article by John Loy. It is some measure of the new research momentum in these areas that a number of novel associations for their study have been founded in the past several years, including national and international groups for the study of sport psychology and sport sociology.



CHOOSING UP. The process of selecting team members is as important as the game itself, and as much a part of the memory of childhood play.

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THERE IS A WIDE RANGE of hypotheses and statements in the professional literature about the relationship between game playing and socialization. A review of this literature, however, shows that existence of the relationship is often established by speculative reasoning.[1] In an attempt to find out which among a set of untested or insufficiently tested propositions had some empirical validity, a cross sectional study was carried out. The study involved a sample of some 2,000 Israeli fifth and sixth graders. One of the aims of the study was to further our knowledge relative to the following two questions:

1. Does "game playing" act uniformly as a socialization mechanism, or do only *some* games have a socialization effect?
2. Is the impact of playing a certain type of game similar for children with different backgrounds? [2]

The study was carried out by means of self-administered questionnaires; included in each set was a list of games to be checked by the children according to the frequency of play during the last year.[3] For purpose of analysis, twenty-four games were used to create six game types.[4] The games and the categories that they represent are listed in Table 1.

In essence, the classification allows us to distinguish and make comparisons between games involving strategy and those where the challenge is primarily a task (game types 1, 3, 5, and 6 versus types 2 and 4); between games requiring predominantly physical skills, intellectual skill, and chance (game types 1, 2, and 6 versus types 3, 4, and 5, respectively); and between team and non-team games (game type 6 versus types 1, 2, 3, 4, and 5).

Fourteen socialization outcomes were considered.[5] These include: attitude toward rules and authority, delay of gratification, cooperation, self-esteem, ability to concentrate, social skills, interpersonal trust, leadership, independence, belief in control over the environment, social maturity, moral development, and school achievement.

Although at the time of this writing, analysis of the data is not yet completed, a number of trends already emerge with reasonable clarity. In general terms, these can be summarized as follows:

1. For the relationships investigated, the similarity between fifth and sixth graders is such that nothing is gained by looking at the findings for each age group separately.
2. On the other hand, there are important differences by sex and

TABLE 1—LIST OF GAMES BY GAME TYPE

1. Games involving *physical skill* and generally played by *opposing individuals:*
   wrestling, ping-pong, handball, tag
2. Games involving *physical skill* and requiring the performance of a *task:*
   marbles, jump rope, pick-up sticks, five stones
3. Games involving *intellectual skill* and generally played by *opposing individuals:*
   tic tac toe, Chinese checkers, checkers, chess
4. Games involving *intellectual skill* and requiring the performance of a *task:*
   riddles, scrabble, word games, crosswords
5. Games involving primarily *chance factors* and generally played by *opposing individuals:*
   dominoes, monopoly, backgammon, card games
6. Games involving *physical skill* and generally played by *opposing teams:*
   soccer, basketball, volleyball; dodgeball

S.E.S., to the extent that a strong relationship in one subgroup may disappear in another one, or even show up with a reversed sign. That is, a positive effect in one subgroup doesn't guarantee that in another subgroup the same type of activity will also be related to a positive effect; it may have exactly the reverse effect.

3. Furthermore, the frequency of play is of great importance. Different games are related to a positive or negative effect according to an optimum frequency of play which varies from game to game and from subgroup to subgroup.

4. There is evidence that a *moderate* amount of play is beneficial across games in general. That is, although not a single game type, or a single frequency of play of any one game type, has a uniform effect, playing very frequently or not playing at all the gamut of games (or most of it), is generally worse than a moderate amount of play.

To put it otherwise, the findings indicate that there is a game specific effect which must be ascertained in each case in the specific target population. At the same time, however, there is a general effect dependent on the child's playing a large number of games of different types, provided this is done with moderate frequency.

Hence the following answers may be given to the two questions we raised at the beginning:

1. Apparently no single game type has a general good or bad socialization effect. The same holds true for the notion of "game playing" in general. The important variable seems to be the *variety* of game types engaged in, provided the overall frequency of play is moderate.

2. The impact of game playing is clearly different for children with different characteristics and/or social backgrounds.

These findings point to the need for research to identify and understand the range of specific effects of games in various groups and for various frequencies of play. As a first step it would probably be useful to see how the present results can be generalized for other age groups, for a wider range of games, and across cultures. In any case, the importance of a replication is too obvious to require elaboration.

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[1] See Inbar, M., "Toward a Sociology of Autotelic Behaviour," *La Critica Sociologica*, 14, Summer 1970; Inbar, M., and Stoll, C., "Games and Learning," *Interchange*, 1, 2, 1970, 53-61.

[2] The present research was confined to *games* only, as opposed to play. That is, we are only dealing here with ludic activities involving clearly defined rules and goals.

[3] This set of questionnaires had been previously pretested in a pilot study (N = 524) and the list of games was established on the basis of the empirical findings. A report on this pilot study can be found in G. Schild, *The Influence of Games, Relative to Abilities and Attitudes on Achievement in School*, Unpublished master's thesis, Johns Hopkins University, 1970.

[4] The methodological considerations and procedures underlying the classification cannot be detailed within the scope of this paper. In a nutshell, following Guttman's facet analysis approach, the categories of the classification were created by means of a cartesian product of the elements of a mapping sentence. (Guttman, L. "A Structural Theory for Intergroup Beliefs and Actions," *American Sociological Review*, 24 (3), 1959, pp. 318-28.)

[5] The reasons and methods of selection and measurement are detailed in Inbar, M., and Edwards, K., *Natural Games and Pre-Adolescent Socialization*, forthcoming 1972.

Competition for Children: The Real Issue

MICHAEL R. BULA

The principle that properly organized and closely supervised athletic competition can benefit the elementary school age child is definitely controversial. Support and condemnation can be found easily. Research findings which support both sides are readily available. Each individual in physical education, administration, and medicine has his opinion.

However, a personal conviction of whether competition for the pre-junior high school age student is beneficial or not is no longer pertinent. Competition for this age group is here and is continuing to grow. The primary concern the physical education profession must have is to ensure that the child receive a positive experience while competing. Let's not kid ourselves; he is going to compete!

Presently national tournaments exist for children under eight years of age. Local and area tournaments include divisions for six and seven year olds. In at least one sport a primary objective is to excel in competition regardless of age. Thousands of children play little league football and baseball. Competition for the elementary school age child is available in nearly every sport practiced in the United States.

In general, the schools and many leading physical educators have taken strong positions against any type of organized competition for any child under high school age. In most textbooks competition for this age group is given a paragraph or less, at most a chapter. Yet today it is one of the crucial problems facing a physical educator.

The child who wishes to compete will compete with or without the school's approval or support. It must become the concern of the professional physical educator to ensure that the child receive proper guidance and supervision by qualified personnel. The parents look to the schools as the best source of personnel, facilities, and equipment, yet the schools refuse to be a leader in this area, often attempting to appease the parent and the child with play days and intramural programs. The parents must then apply their limited knowledge or turn for guidance to other agencies having inadequately prepared personnel.

The primary concern is proper supervision. Many believe that too much pressure is put on the child too soon. The coaches are not well qualified to provide proper guidance. The child attempts to learn a skill before he is physically ready. All these imply a great need for further education and more adequate, qualified supervision.

Education of the parent is all-important. Workshops need to be held to educate parents as to the benefits and pitfalls of competition for their child. As the final decision rests with them, the more information provided, the more likely it is that a realistic decision can be made. The school is the perfect agency for this kind of education of the parent.

Education for coaches is crucial. Today colleges and universities are concerned with developing coaches primarily for secondary and college positions. Little or no time is given to any other areas. Regardless of one's like or dislike for competition, this pattern should be changed, so there is qualified personnel for the little leagues.

Educating the child about competition is also important. Competition for him is not something new. He is continually challenged by his parents, peers, and teachers. What is important is that he continually receive a positive experience through competition, whether it be in athletics, school, or home. Adults must constantly strive to make each contact with competition an educating and challenging experience.

The AMA ignored alcohol and drug addiction until they became epidemic. A parallel may be made with the field of physical education. AAHPER disapproves competition for children so that finalizes it; competition is no good for children under the ninth grade so if it is left alone it will go away. Instead, it gets stronger every year.

Think! Isn't it time we started becoming educators and not so opinionated that we forget that we don't make the decision as to whether competition is to be available or not; the public does. It appears that the public is supporting competition for the youngster. Therefore, isn't it time programs be initiated to educate the public?

Before the epidemic gets out of hand, the profession must recognize the fact that competition for the elementary school age child is growing stronger regardless of what the profession has revealed as to research. A national office may prepare directives, pamphlets, and various other materials but if the material does not reach the public or parent, nothing can be accomplished.

In summary, to be for or against competition for the child is not the issue. The issue is that the competing child must be ensured the highest quality of supervision and the parent must be made fully aware of his role in his child's competitive life. As professionals, we must begin at the local level to educate parents and the public about competition. □

Michael R. Bula is youth physical director for the Young Men's Christian Association of Metropolitan Denver. He has been involved with programs of competition for youngsters for the past six years.

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Competitive Sports for Children

Editorial Comment and Annotated Bibliography

Marie Riley, University of North Carolina, Greensboro, North Carolina.

The topic of competitive sports for children is one that can be found in most popular magazines and many professional journals. Interestingly, there have been comparatively few articles on this topic in AAHPER publications so, to supplement the materials in this section, an annotated list of readings is included here.

I agree with Bula (p. 132) that competitive sports programs for children are here to stay and physical educators must decide if and how they are going to become involved. Much that is written is personal and anecdotal. Much, however, is based on fact as well as opinion and scientific evidence as well as empirical judgment. Competition for children has become a value-laden question and it must be confronted from the vantage point of sound reason and good judgment.

The extent of youth sport programs throughout the nation illustrates the value that society places on this experience for children. The majority of opinions expressed pro and con about the programs are not from physical educators, but from parents, professional players, sport psychologists, medical and recreation personnel. Physical educators, it seems to me, need to begin discussing this topic in our professional literature, but from an angle different from the pro and con issue. We need to clarify the relationship between youth sport programs and physical education programs. Questions such as the following need to be answered: Is there any relationship between sport programs for children and elementary school physical education? What is unique about each program? Who do the programs serve? What are the objectives of each program? Should one program influence the other? Or, should they be mutually exclusive? If you decide the two programs are different, do you have any responsibility for youth sport leadership — or leadership training?

The annotated reference list which follows is only a sample of the available material on this topic and is illustrative of the wide range of publications in which ideas and opinions about competitive sport for children can be obtained. A perusal of these would be a start toward gaining insight into the nature and scope of competitive sport for boys and girls. After deciding where you stand on the issue, and why, the critical question is what action do you plan to take?

Selected Readings

Albinson, J. G. and Andrews, G. M. eds. *The Child in Sport and Physical Activity*. Baltimore: University Park Press, 1976.

A collection of scientific papers in their entirety as given at The National Conference on The Child in Sport and Physical Activity, Queens University, Kingston, Ontario, May 1973.

Billings, R. W. Where have all the athletes gone? *PTA Magazine* 67: Dec. 1972, 28-33.

Discusses the question of the decline in popularity of sports and the concern it causes for the direction of physical education in schools. Also, briefly comments on how Little League, etc. can be played to the participants' advantage.

Bucher, Charles. Athletic competition and the development growth pattern. *Physical Educator* 28: March 1971, 3-4.

Points out that human beings grow and develop in an orderly, sequential pattern and that physical educators must be aware of this pattern and organize their instructional program so that it will be compatible with the needs and characteristics of children and youth at these different stages of development. The same is true with athletics. Author offers his suggestions for such a program.

Burke, Edmund and Kleiber, D. Psychological and physical implications of highly competitive sports for children. *Physical Educator*, May 1976, 63-69.

Refutes many of the arguments often given in favor of youth sport by citing research findings and empirical judgment. Offers 12 recommendations for improving the youth sports opportunities for children.

Deford, Frank. Now Georgy-Porgy runs away. *Sports Illustrated* 4: April 22, 1974, 26-28.

Recent Superior Court ruling in New Jersey stated that girls should be accepted in baseball leagues and several cases cited. Brings up the point of the "dangers" of role blurring that is caused by mixing the sexes early in life. Mentions that girls are losing ground in their desire for equal opportunities in sports as boys try out for volleyball and field hockey teams.

Delfastatious, J. W. and Cooper, Walter. The physiological aspects of competitive sports for young athletes. *Physical Educator* 27: March 1970, 3-5.

The effects of athletic competition on young children were studied and it was concluded that a good physical education and a good intramural program are the basic foundations on which a beneficial interschool program is built . . . Strenuous athletic competition at this age should be avoided. Activity should be organized, administered, and supervised in an intelligent way by qualified leaders.

Dworkin, Susan. Sexism strikes out. *Ms* 11: May 1974, 20.

Brief article concerning the rights of girls to play on Little League teams. Stresses that children between the ages of 8 and 12 perform differently on an individual basis, not because of their sex.

Krone, Chester. Choosing the right sports for your child. *Woman's Day*, Oct. 1976, 26-32.

Urges consideration of individual readiness (physical and psychological) for sport participation. Written for parents.

Kaplan, Jim. Young blades — A wintry heritage, *Sports Illustrated*, Feb. 1976, 30-36.

Gives many suggestions for modifying youth ice hockey.

Klafs, Earl E. and Arnheim, Daniel E. *Modern Principles of Athletic Training*. 3d ed. St. Louis: C. V. Mosby Co., 1973, 55-57.

Pathologies and injuries of young, immature (physiologically) baseball players explained. Includes bone and joint injuries, to pitchers especially from pitching a curve.

Larson, David.; Spreitzer, E.; and Snyder, E. An analysis of organized sports for children. *Physical Educator*, May 1976, 59-62.

Discusses results of a survey and explores long-term consequences of participation in organized youth sports.

Levy, Maury. The girls of summer. *Women/Sports*, Aug. 1974, 36-39.

Cites cases of young girls trying out for Little League teams and the pressures they face, mainly from adults. In fact, most of the conflicts described seem to be caused by adults. Children are usually very accepting of each other regardless of sex.

Lewandowski, Diane. Girls in youth sports. In *National Youth Sports Directors Conference Proceedings Report*. Chicago: Athletic Institute Youth Sports Dept., 1975.

A plea for physical education for all — then competition for those who desire it and are ready for it.

Martens, Rainer. Kid sports: A den of iniquity or land of promise? In *National Youth Sports Directors Conference Proceedings Report*. Mimeographed. Chicago: Athletic Institute, Youth Sports Dept., 1975.

Suggestions offered as to how the findings of psychological research can be applied by coaches to help develop moral standards among young athletes and how social learning principles may be used to facilitate moral development: also suggests a perspective for youth sports programs.

Orlick, Terry and Botterill, Cal. *Every Kid Can Win*. Chicago: Nelson-Hall, Inc., 1975.

A perceptive look at sports participants as individuals, with emphasis on children's feelings and goals. Written for "children in sport, and especially for children out of sport."

Parker, Thomas. Establishing communication, leadership and motivation in youth sports. In *National Youth Sports Directors Conference Proceedings Report*. Mimeographed. Chicago: Athletic Institute, Youth Sports Dept., 1975. (xerox copy).

Describes the need for improved leadership by citing examples of negative situations; makes proposals for improving the coaching of youth sports.

Pileggi, Sarah. Everybody gets to play. *Sports Illustrated*, Nov. 3, 1975, 47.

Discusses the philosophy and organization of the American Youth Soccer Organization.

Roberts, Robin. Strike out Little League. *Newsweek*, July 21, 1975, 11.

A critical examination of Little League demands, with suggestions for change. Author is a former big-league pitcher with 14 years of experience.

Shaffer, Thomas E. Athletics for elementary school youth. *Theory into Practice* 3, no. 3: 1964.

Lists pros and cons toward competition in elementary schoolchildren. Gave several things to do to make competition favorable. Well-conducted program gives chance for minimal injuries. No proof that injuries happen more in sports than in backyard play. Program should be broad and well supervised.

Shipira, Will. Mike Marshall: Baseball is his hobby, physical education is his life. *The Physician and Sports Medicine* 3, no. 2: Feb. 1975, 89ff.

An interview with Mike Marshall, the 1974 Cy Young Award winner. Marshall has strong views about how to modify competitive experiences for children and how to develop physical education programs in which all children learn many skills and develop a love for activity throughout life.

Thornton, Melvin, M.D. Little League baseball: "'Tis not good enough for girls." *Today's Health* 52: July 1974, 6-7.

As a father of five girls, the author does not see opening up Little League baseball to girls as the means for gaining equal facilities and opportunities in athletics. He encourages active participation in a variety of activities as a way of avoiding heart problems, which he goes on to describe at great length. He is concerned that the girls who participate in Little League will become an excuse for American communities to avoid providing equal facilities and opportunities for those girls not participating. He also believes in the fourth R—running.

Underwood, John. Taking the fun out of the game. *Sports Illustrated*, Nov. 17, 1975, 87-98.

Expressed opinions about a variety of adult values and adult interventions in youth football.

Tutko, Thomas and Bruns, William. The American compulsion to win. *Women's Sports*, Sept. 1976, 16-20.

Point out the fallacies of imposing adult values on children's games.

Whiteside, Marilyn. What happens to the gifted girl? *PTA Magazine* 68: Feb. 1974, 20-21.

Points out that parents encourage the feminine role for their daughters rather than have the daughters use and express certain of their talents that might, in the parents' opinion, have some traditional male characteristics. There is a need to get away from the labels of "masculine" and "feminine."

Professional Preparation

NATIONAL SURVEY OF PROFESSIONAL PREPARATION FOR THE ELEMENTARY SCHOOL PHYSICAL EDUCATION SPECIALIST

HUBERT A. HOFFMAN

A national survey of professional preparation of the elementary school physical education specialist was completed in August 1971 by the Elementary School Physical Education Commission (ESPEC) of AAHPER's Physical Education Division. The study was initiated by the ESPEC as one of many efforts to fulfill its primary responsibility of promoting the development of quality elementary school physical education programs throughout the country. The purposes were to assess the status of the professional preparation of elementary physical education specialist, to identify innovative and/or exemplary professional preparation programs, and to give guidance to future efforts of the ESPEC. The focus on professional preparation has been stimulated by the recognition of the need and importance of quality elementary school physical education teaching and the demands for specialists to provide the necessary leadership.

A questionnaire was designed by the author and reviewed by the ESPEC. The instrument contained items that could be machine tabulated. The first section asked for information regarding program organization, courses, field experiences, and personnel. This part was followed by sections dealing with future plans and graduate programs. A request was made for descriptive data to allow the respondents to explain and expand upon situations not adequately provided for in the previous parts of the questionnaire; this last section proved to be very productive.

The questionnaires were mailed on May 14, 1971, to the 1,500 departments of professional preparation that could be identified. Follow-up letters were sent on June 15, 1971, and a July 2, 1971, deadline was established. Returns received by the deadline represented 44.9% of the departments.

The resources of the University of South Florida, Tampa, Florida, were used in collecting and analyzing the data. The following discussions of the findings of the tabulated data are enriched with comments from the descriptive part of the questionnaire. While many persons assisted in the survey, the author is solely responsible for any errors in tabulation or interpretation of the results.

Hubert Hoffman is associate professor, College of Education, University of South Florida in Tampa, Florida 33620. He is chairman of the Elementary School Physical Education Commission.

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Program Organization

The most common pattern of organization for undergraduate programs is the K-12 major: 40% indicated this response, 25% indicated only a secondary (grades 7-12) major, 22% said either elementary (K-6) or 7-12, 12% indicated some other pattern, and 0% indicated only a K-6 major.

In the popular K-12 design, 30% responded that some attention is given to the elementary level in some courses, but the major emphasis is on the secondary level. Only 9% indicated equal emphasis to all school levels in the courses, and 6% mentioned that they provide a concentration of electives at the elementary level.

Many of the comments made were related to program design. Most responded that there is a need for improved preparation at the elementary level. They cited finances, lack of competent college faculty, no demands for elementary specialists in their state, and state certification requirements as factors inhibiting program development. Others simply stated that they were not interested in an elementary major or any elementary school physical education course work.

The most surprising comments were those dealing with the K-12 or "core" programs. The range within this category is great. There is the basic secondary program extended by one or more courses and part of the student teaching at the elementary level. There is the equal emphasis to all school levels in all courses approach. There is the common core with specialization then allowed in elementary, secondary, aquatics, gymnastics, or coaching, etc. There seem to be many varieties of these patterns.

Some people support the K-12 design over the elementary major. They explain that all physical educators should understand human movement from birth to death. They say that the best way to recruit elementary specialists is through the elementary experiences in the K-12 program. Their rationale is that because most majors are oriented toward secondary teaching and do not know what elementary school physical education is all about, they would not choose the elementary major prior to elementary experiences in the K-12 design.

The K-12 design is the most common in professional preparation in physical education. However, the variance is tremendous, ranging from a single two-semester-hour course distinguishing certification between K-12 and 7-12 to a quality emphasis on elementary school physical education.

Some universities offer a choice of majors to their students, for example, a choice between a K-12 or a K-6 major. At other colleges, students may take a double major in elementary education and physical education to become certified to teach elementary school physical education. While some schools have a secondary physical education major, they also offer a concentration in elementary school physical education to elementary education majors. One state has recently provided for a concentration in physical education, grades 4-9, for elementary education majors.

While there appears to be great interest in improving program designs to better prepare elementary school physical education specialists, there are also indications of two emerging trends: preparation of teachers to work at the middle school level and preparation for the early childhood years. In existe[illegible] now are examples of elementary school physical educat[illegible]ourses catering to the needs of preschool and prim[illegible]de children and others directed more toward the nee[illegible]of intermediate grade children.

Course Content

Of the respondents, 89% indicated they have one general course in elementary school physical education. Of these courses, 70% have a credit value of 2-3 semester or 3-4 quarter hours. Respondents were asked to rank five content areas in the one general course from 1, designating area emphasized most, to 5, for the area emphasized least. The results are shown in table 1.

Table 1: Content emphasis in the general elementary physical education course

Content Area	Mean	Response %				
		1	2	3	4	5
Content (what to teach)	1.9	45	35	11	4	3
Methodology (how to teach)	2.1	35	35	16	10	3
Philosophy and objectives	2.9	25	13	29	18	14
Planning	3.2	10	15	32	32	10
Evaluation	4.3	3	4	11	24	57

Table 2: Competencies of students to teach activities

Activity	Mean	Response %			
		1	2	3	4
Games and sports	1.6	47	49	3	1
Physical fitness	2.0	19	65	14	1
Basic movement education	2.1	21	57	20	2
Other rhythmical activities	2.2	13	60	22	5
Tumbling and stunts	2.3	12	56	26	4
Dance	2.3	17	49	24	9
Gymnastics	2.6	8	37	42	12
Perceptual-motor	2.8	3	36	44	16
Aquatics	3.3	6	18	16	58

1=extremely well prepared
2=adequately prepared
3=poorly prepared
4=not prepared

Table 3: Course responsibility for basic content

Content Area	Response %				
	1	2	3	4	5
Growth and development of children	10	14	71	1	4
Learning process	4	22	69	2	2
Teaching behavior	8	24	58	6	3
Curriculum development	24	48	19	4	4
Administration and organization	13	64	12	5	6
Evaluation	11	58	20	4	7
Research	3	30	17	40	10
Dance for children	43	36	1	15	5
Rhythmic activities for children	51	37	2	6	4
Basic movement education	44	41	3	10	2
Games and sports for children	50	41	2	4	3
Gymnastics for children	22	51	5	16	6
Stunts and tumbling for children	29	53	4	9	5
Aquatics for children	5	35	3	50	7
Perceptual-motor activities for children	23	33	6	29	9

1=separate elementary physical education course
2=part of K-12 course
3=general teacher education course
4=not offered
5=other

It is clear that content and methodology are the most emphasized areas in a single elementary course. In view of the scope of comprehensive elementary programs, this is an enormous task. Yet, most respondents feel that their students are adequately prepared, as indicated in table 2. It shows the answers to the question, "How well prepared are your students to work productively with children in these activities?"

While some might question the quality of the preparation in any area, the rankings which are shown represent the judgments of those responding and indicate relative emphases in the course. Thus, basic movement education, which is ranked high, would appear to be more than just an area for academic discussion and has been established as an important element in elementary school physical education preparation. Perceptual-motor activities are ranked relatively low. Perhaps this area is still interpreted as one reserved for special study and beyond the scope of a general elementary school physical education course. Of those responding, 20% indicated that the general course is "very effective" and 48% indicated that it is "effective."

An attempt was made to determine how selected subject matter in the professional preparation of elementary specialists was organized for instruction. Table 3 shows the results.

Many commented on the need for understanding growth and development of children if elementary physical education specialists are to work productively with children. It appears that this study often takes place in isolation from much of the other subject matter in professional preparation programs. The K-12 courses are predominant in curriculum, administration and organization, evaluation, research, and some activity areas. Separate elementary courses are most frequent in dance and rhythmic activities, basic movement education, and games and sports for children.

A final point regarding content in the professional preparation of elementary specialists was made frequently by the respondents. Many indicated that the specialists should understand the total elementary school curriculum so that they could function better as members of the elementary school faculty. Questions relating to this point showed that in K-6 or K-12 programs students are required to have a general elementary school curriculum course in 39% of the cases; an early childhood course in 44%; a reading or language arts for children course in 24%; a math, science, or social studies course in 26%; and an art or music course in 28% of the cases.

Field Experiences

Traditionally, student-teaching has been the terminal undergraduate experience for education majors. It has also been viewed by many as the most meaningful of all the professional preparation practices. Many educators are attempting to provide field experiences for undergraduate majors prior to student-teaching. The survey asked the following question: Prior to the student-teaching experience, and as part of a course requirement, do your students:

	% Yes	% No
Observe children in motor activities?	93	7
Observe children in an elementary school classroom?	74	26
Assist a teacher in an elementary school physical education class?	69	29
Teach an elementary school physical education class?	68	32

There is an obvious trend toward early field experiences. This area was one that received much comment in the last part of the questionnaire. Many ways are used to provide field experiences. One university reported that their students take a field trip of several days around the state observing elementary school physical education programs. Other schools report use of a laboratory school or a special clinic or laboratory on campus that brings in elementary age children. One university reports that student-teaching has been replaced by a two-year continuous field experience ranging from elementary through secondary grades, including teaching in the elementary school classroom. Others have established an elementary school physical education teaching center that is a cooperative effort between the university and a public elementary school. Such centers are used in a variety of observation and field experiences.

There are two basic reasons given for promoting early experiences with children. First, it enables the major student to make a more intelligent career choice. Second, it gives greater meaning to all the "on-campus" study and helps bridge the gap between theory and practice.

Student-teaching is still the terminal experience in almost all professional preparation programs even though many are providing prior field experiences. The survey revealed that in the K-12 design only 48% of the programs require all their majors to have elementary school physical education student-teaching.

In cases where majors have elementary school physical education student-teaching, the daily teaching is supervised by an elementary physical education specialist in 42% of the cases, by an elementary classroom teacher 11% of the time, and by a combination of specialist and classroom teacher 29% of the time.

Personnel

One part of the questionnaire was designed to determine how many professors teaching elementary school physical education courses have had actual elementary school physical education teaching experience. It also requested information on the value of the public school teachers in supervising field experiences in elementary schools.

The survey revealed that, regardless of the program design, most of the faculty responsible for elementary school physical education courses have not had actual elementary school physical education teaching experience. K-12 programs that have separate elementary school courses scored best. Here 50% of the respondents indicated that at least one-half of the teachers responsible for the elementary school physical education courses have had actual elementary teaching experience.

University teachers rated the role of elementary school physicial education specialists and classroom teachers important in supervising field experiences for majors. Elementary specialists were rated important or extremely important in 78% of the cases; classroom teachers were rated important or extremely important in 55% of the cases.

A question was asked regarding who should supervise student-teachers in elementary physical education under present conditions: 52% indicated the elementary physical education specialist, 5% said the classroom teacher, and 36% said both. This question was followed by another asking the same question assuming *ideal* conditions. The results were substantially the same with 53% saying the specialist, 2% indicating the classroom teacher, and 41% saying both. These data are particularly interesting. They appear to substantiate the idea that the elementary physical education specialist and the classroom teacher should have a close working relationship.

Many of the comments made in the descriptive section were directed to those teaching the elementary school physical education courses in the universities. Here are the most common remarks: Elementary school physical education preparation needs restructuring and restaffing. We need specially trained people for professional preparation of elementary specialists. We need people who have taught elementary school physical education successfully. Professors should go back to elementary physical education teaching.

In addition, a number of respondents reinforced the idea of university-public school cooperation in the preparation of teachers. This feeling was expressed best in this statement, "All professional preparation programs *must* increasingly involve the public school people in the capacity of teacher trainers."

Program Plans

Are teacher preparation departments planning changes in their programs? Of the schools with secondary physical education majors, 42% indicated that they planned within three years to add either required or elective elementary physical education courses; 47% indicated they would be adding either required or elective field experiences at the elementary school level. Also, 30% said they would be adding either a required or elective elementary major or concentration in elementary school physical education.

The results for departments with K-12 programs were about the same: 47% indicated plans for required or elective elementary physical education courses, 53% plan required or elective field experiences, and 34% are planning an elementary major or concentration in elementary school physical education.

Departments with elementary physical education majors are not planning many new courses. However, 22% are planning required field experiences prior to student-teaching, and 5% are planning elective field experiences.

It is apparent that many departments are planning to improve their programs to better prepare teachers to work at the elementary school level. In response to the question, "Do you feel that your department should do more to prepare physical education teachers for the elementary school level?" 57% responded yes, much more; and 26% responded yes, a little.

Those departments planning improvements indicated what kind of assistance would be most helpful to them; 48% said a conference or workshop on professional preparation, 9% said publications or articles, 21% said consultants to work with the faculty, and 21% indicated some other kind of help.

Finally, 23% said they are planning to employ a person in their department to work in the professional preparation of elementary school specialists. The most frequently mentioned preference was for a person with a doctoral degree plus elementary teaching experience.

Graduate Programs

Fifteen percent of the departments offering a master's degree, 5% of those offering a specialist's degree, and 4% of those granting a doctoral degree have a specialization or concentration in elementary school physical education.

Of the institutions offering a concentration or specialization in elementary school physical education at the graduate level, 4% have elementary field experiences for those who have had

no elementary experience and 9% have elementary field experience for everyone specializing at the elementary level.

Content and curriculum are emphasized most in graduate programs specializing in elementary school physical education. This is followed by an emphasis on methodology, then organization and administration, and finally research with children.

Graduate level courses are offered in areas receiving current national attention: 39% offer courses in basic movement education, 40% offer courses in perceptual-motor activities, and 25% offer courses in dance for children.

In the descriptive section of the questionnaire there was only an occasional comment regarding graduate work that emphasizes elementary school physical education.

Concluding Statements

Quantitatively, there are many plans for improving the preparation of elementary school physical education specialists. Many courses have been added but most program designs have not changed. Qualitatively, however, there are examples of new programs and also old designs where people have made changes within their programs to help produce extremely competent elementary physical education specialists. Much more seems to be changing in undergraduate than graduate preparation.

There is some evidence that the usual elementary preparation (K-6) is undergoing close scrutiny. The early childhood and middle school patterns are receiving more attention and professional preparation may focus on this trend.

Field experiences prior to student-teaching are increasing in professional preparation. A pattern of observation, assisting, and then teaching has emerged. There are those emphasizing classroom field experiences for the prospective elementary school physical education specialist. This is consistent with the expression of the need for the physical education specialist to be totally familiar with the elementary school curriculum and an integral member of the elementary school faculty.

More people are calling for cooperative efforts in teacher preparation between university faculty and public school personnel. The student-teaching supervisors and cooperating teachers have been doing this for some time, but greater cooperation in this and other ways should prove to be effective.

In many different ways, respondents talked about the kind of person who should teach elementary school physical education. A definite plea was made for a selective admissions and recruitment program to get the best people possible to work with elementary children. Here are some of the typical comments: Need teachers who wish to work with children. Need for selectivity in recruitment and retention. Need students with commitment to teach at the elementary level. Screen for those who have real interest. Need dedicated teachers. This is certainly an area which should be examined carefully by those responsible for professional preparation.

Finally, one gets a "feeling" when he reads the hundreds of comments written by concerned professionals who took time to reflect on the problems posed in this survey. There is tremendous concern about the professional preparation of elementary school physical education specialists. The concerns are not only about courses and field experiences and program designs and credits, but also about people. As one person wrote, "Our professional preparation program will improve as we strive to develop individuals who are never satisfied with the status quo."

Optimistic Prospects in Elementary School Physical Education Professional Preparation

LOIS JOHNSON

What is happening in professional preparation for elementary school physical educators? This article presents interpretations based on firsthand observations during the author's visits to institutions across the country, while on sabbatical leave. Interesting innovative aspects of each school's programs have been singled out for attention. Statements made about one program are probably true of several others, but repetition has been avoided as much as possible. This is by no means a complete coverage of innovations in professional preparation for elementary school physical education. Institutions included were those a limited time schedule allowed the author to visit (see list on last page of article).

There are stimulating changes in colleges and universities across the country. The changing times, the mass media, and more enlightened searching students have contributed to examination of the curriculum in professional preparation. The traditional pattern of pouring in knowledge to be stored for future use is no longer acceptable. Students are demanding an observing, recognizing, problem-solving degree of mastery discernible through immediate feedback.

When an institution can start as a new university, develop its philosophy with no tradition to stifle its progress, and find faculty who will subscribe to this format, it has all the earmarks of utopia. The University of South Florida did this very thing. There is an individual assessment program where the responsibility is placed upon the student to understand his own behavior as he is engaged in the process of professional preparation. The courses are team taught from a core approach, thus eliminating duplication and providing valuable reinforcement of concepts and values. The student is in the public schools his first quarter and every quarter he is in the program.

Last fall a detailed selective admissions program was initiated. Students entered the program through consensus of two faculty interviews structured with situation questions in terms of maturity and love for children. This writer observed the first week of classes and had the opportunity of following one section throughout the week. The maturity and retention displayed by this group was amazing.

A similar program diagonally across the continent is that of Simon Fraser University, in Burnaby, British Columbia. The university was also founded in 1965, and like the University of South Florida it had the opportunity to develop its philosophy without traditional barriers. The program was designed to be one channel of special interest for elementary classroom teachers preparing them with an additional and special competence to teach physical education. It is a three semester professional development program. The first semester includes a two-month in-school classroom experience where four students are placed with a classroom teacher. During this period approximately 24 students are selected for the minor program in physical education. Selection is based upon the student's potential teaching ability and his special interest and competence in physical education. When these students return to the campus for the next two months they participate in general sessions, curriculum seminars and workshops offered to all students plus additional workshops and seminars in elementary physical education. The student, in addition, prepares a project in his area of interest. The second semester has a four-month in-school experience in the classroom and an additional six to ten classes of physical education each week covering all age levels in the elementary school. The student is supervised closely by the university specialists in physical education and supervising teachers. The third semester is course work on campus with an opportunity to pursue special areas of interest in physical education. The faculty can present additional knowledge the student may need.

In both of these programs the structured tie is with the college of education which elicits the common goal of a developmental program and the whole-child concept. Both programs have close supervision from university specialists. Both programs provide early and continuous experiences with children in the schools. Both programs have a highly selective admissions requirement. Both programs have produced quality graduates and school districts are eager to hire them.

There are changes occurring in the well-established colleges and universities as well as the new universities. The University of North Carolina at Greensboro is an example. A team teaching program is in existence through the cooperation of three faculty members, whose courses are taught with a movement education approach. Major students taking field hockey, for example, are working on spaces to pass to a teammate, the same students in the elementary class use the same example to reinforce general space while the movement components and subdivisions are diagrammed on the chalk board. For the men in the class an example from basketball on finding open spaces is presented. For the dance majors in

Lois Johnson is associate professor in the Department of Physical Education, California State College, Long Beach, California 90801.

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the same class, for whom the space concept has been well established, the example of general space in folk dance is pr. nted.

The students then have opportunity to observe this same lesson taught to children in the Teacher Education Center established jointly by the Julius I. Foust Elementary School and the University's Department of Health, Physical Education, and Recreation. The classroom teacher is present at all lessons taught by the specialists. A detailed lesson plan containing instructional objectives for both the child and the teacher, learning experiences, major emphasis, and possible expansion is given to the classroom teacher preceding the lesson. The classroom teacher participates as an assistant in the lesson and can repeat or expand the lesson the next day. (Within two years the classroom teacher should be able to instruct other teachers in the system.) The next lesson progression is given when sufficient mastery has occurred in the preceding lesson providing greater in-depth learning.

A similar learning center has been established by the Women's Physical Education Department at Bowling Green State University and the Bowling Green, Ohio, Public Schools using Crim Elementary School. The department assumed all instructional responsibilities for the total program, thus freeing city supervisors for other schools in the district. The director's office is at Crim Elementary School. The university administration has designated this action-research, thereby crediting the director with the necessary research time in determining her full-time teaching equivalent load.

The program is based upon Rudolph Laban's classification of movement, movement themes, and movement analysis which reflect how the body moves, where it is in space, what it can do, and the relationships involved as it moves. As the environment changes because of the introduction of different apparatus and equipment or because of the requisite of the interaction among the learners to other stimuli, so the activity product of the experience changes. The activity will manifest itself to the observer and learner as dance, gymnastics, striking, throwing, games or whatever, depending upon the stimulus within the environment in which the content is being examined. The Center encompasses grades K-6 plus special classes of educable mentally retarded so that the observation opportunities for faculty and students are excellent in many areas.

East Stroudsburg State College, East Stroudsburg, Pennsylvania, has developed a similar learning center for grades preschool-4. To provide knowledge of the general curriculum for the specialist, a basic requirement often lacking in the specialist's preparation, the principal of the learning center schedules an in-service lecture series which meets weekly. Curriculum specialists from the college faculty provide the instruction. The attendance of the learning center staff is voluntary if the individual has had a course in the area to be discussed, such as the new math, the Sullivan approach to teaching reading, etc.; otherwise, it is compulsory. The graduate assistants in physical education, having had no instruction in these areas, attend all sessions. What is interesting is that these students would not think of missing a lecture because they find them so valuable in their planning and teaching at the Center.

The University of Wisconsin at Milwaukee has a basic core program and emphasis areas. The learning center approach is also stressed. Physical education majors may take up to six credit hours in special field work and related course work at the Lincoln Avenue Elementary School of the Milwaukee Public Schools. Experiences include work with classroom teachers highly skilled in teaching physical education as a result of the EPDA pilot program of 1969-70 which trained 84 classroom teachers and principals in basic movement education. They also work with a UWM supervisor-specialist in elementary physical education. Close cooperation between classroom teachers, UWM students, and supervisors provides insight into relationships of subject areas and lessons taught in physical education by the classroom teacher.

Ohio State University has established learning centers in various schools in Columbus where the university elementary physical education classes meet for a series of lessons given by the OSU faculty. The students then begin "micro-teaching," which consists of three teachers, two assistants, and three observers in a group. With this back-up team, each teacher presents a ten-minute lesson, the student's initial exposure to teaching movement skills. Gradually the responsibilities for class control and teaching are increased under close supervision to provide the necessary growth and depth in implementing the movement approach. Many students elect to do graduate work in this area at Ohio State University.

In 1963 the first step occurred in providing laboratory experiences with children for the professional student at Northern Illinois University. Through observation and assisting master teachers, the students worked with children ages 5-12 in a Saturday morning program. This served as an observation center for about 500 prospective elementary classroom teachers and their university instructors. It could not, however, duplicate the sequential relationships which exist in the classroom or the total curricular structure of a school.

A pilot program was initiated with Littlejohn Elementary School in February 1967 as a cooperative project of the DeKalb Public Schools and the Department of Physical Education for Women. The pilot program consisted of two classes of students, two classroom teachers, the physical education specialist, and two consultants from the Department of Physical Education for Women, including one visiting lecturer from England. The program was continued as a Demonstration Center in 1967-68 with all classes in the school becoming involved in the program. That year, it was selected by the National Commission on Teacher Education and Professional Standards to be a demonstration center for the "Year of the Non-Conference." Some 400 persons, teachers and administrators from 12 states and 30 school districts in Illinois, visited the Demonstration Center during 1967-68. Currently, movement education is an integral part of the physical education program in many classes in the DeKalb Schools. The cooperative program has resulted in achievement of two long-range objectives. First, the program has provided opportunity for the functional application of theory relative to the child's developmental needs and learning patterns in physical education in a child-centered setting where the atmosphere is oriented to learning as a total educational process. Second, the program offers conditions essential to the initiation of practical teaching experiences under the guidance of experienced teachers beginning with the sophomore year.

Combined majors in elementary education and physical education or a double major have been developed in several colleges. This is the pattern at Simon Fraser University and the University of Wisconsin-Milwaukee where 90% of those electing the double major begin their teaching careers as physical education specialists in the elementary schools. Eastern Washington State College, Cheney, Washington, has

had this type of program since 1962. The college has an elementary school, grades 1-6, on campus. The director of the elementary physical education professional preparation program is also the physical education program director in the elementary school. It is operated much as a learning center is elsewhere.

At the University of Wisconsin in Madison the student may elect as an area of concentration the elementary school child in physical education to complete the general physical education major. Courses in elementary physical education are taught from a developmental movement approach. The University and the Madison Public Schools work in close harmony to provide laboratories for innovations. There are also many exposures to research projects in both the areas of perceptual-motor development and the developmental changes of motor patterns in children, which challenge students to do advanced study in these areas.

At Oregon State University, Corvallis, the physical education major includes grades K-12. There is an area of emphasis in elementary for the major, and the student is out in the field working with children beginning the winter quarter of the junior year. The elementary classroom teacher candidate may elect health and physical education as an area of specialization. In several states, Oregon being one, the credential may include both health and physical education.

At Moorhead State College, Moorhead, Minnesota, there is a major in physical education or health and physical education; both programs cover grades K-12. Here, too, elementary classroom majors may select a minor area of concentration in physical education. Observations and experiences with children are arranged in two cities and two states since Moorhead, Minnesota is just across the border from Fargo, North Dakota. Through these experiences, the student gains by understanding points of view of two state education systems. A progressive step in in-service education for faculty in that area is occurring this year as one member of the University of North Dakota, Fargo, on sabbatical, has gone back into the classroom to study and work with preschool children.

Florida State University, Tallahassee, has had an elementary major in physical education for some time with courses designed for the elementary level exclusively, such as preschool growth and development and basic concepts of physical education in the elementary school. California State College, Long Beach, has had an elementary minor in physical education since 1965 designed similarly with courses specifically for the elementary school. Such courses are, for example, dance for children, developmental physical education for children, and fundamental motor skills. Experiences at four different socioeconomic-type learning centers, namely, inner city, affluent suburbia, bilingual grouping, and middle class, were developed by the School of Education. These centers are available for demonstration, observation, and micro-teaching experiences for the students in all areas of education including physical education.

The University of Washington's program is based upon a human movement core with emphases in various specializations; elementary physical education is one of those areas. This is also true of the University of California, Los Angeles. Both of these programs can lead to advanced degrees with an elementary specialization.

The State University at Brockport, Brockport, New York, has an academic major, a study of the theoretical body of knowledge of physical education. The student elects one of two focuses, the significance of experiences in human movement or sport science. A study of human behavior is one direction in the human movement focus. Contingent upon the academic major, teaching and therefore certification are based upon knowledges and concepts from the academic major. The K-6 learning center on the campus is a model complex of ultra modern design. It includes observation decks with one-way glass panes, classrooms for college classes, and the latest equipment for individualizing instruction.

In summary, the optimistic prospects in elementary school physical education professional preparation are (1) to provide a stringent selective admissions policy with maturity and love for children as prime requisites, (2) to establish a basic core for the physical education major based upon the philosophical, psychological, and scientific foundations of movement, (3) to provide areas of specialization that may be pursued at the beginning of the professional sequence (far too frequently the student has had to acquire a foundation in secondary school physical education before specializing in any other area such as dance, special education, or elementary), (4) to design course offerings in blocks or cores to eliminate duplication and to synthesize and reinforce learnings, (5) to teach from a team approach, and, last but far from the least, (6) to provide early exposure for students in a learning center environment with continuous growth of experiences in teaching children. □

Further information about the programs referred to in this article may be obtained by writing to the following:

Bowling Green State University, Bowling Green, Ohio 43402—Dr. Annie Clement, Chairman, Physical Education for Women

California State College at Long Beach, 6101 East Seventh Street, Long Beach, California 90801—Dr. C. Patricia Reid, Chairman, Women's Physical Education Department

East Stroudsburg State College, East Stroudsburg, Pennsylvania 18301—Dean Arnie Olsen, School of Health Sciences and Physical Education

Eastern Washington State College, Cheney, Washington 99004—Dr. Patrick Whitehill, Director of Elementary Physical Education

Florida State University, Tallahassee, Florida 32306—Dr. Mary V. Alexander, Elementary Coordinator, Physical Education

Moorhead State College, Moorhead, Minnesota 56560—Dr. Donald Anderson, Director of Health, Physical Education and Recreation

Northern Illinois University, DeKalb, Illinois 60115—Dr. Lorena Porter, Elementary Coordinator, Physical Education

Ohio State University, 1760 Neil Avenue, Columbus, Ohio 43210—Prof. Naomi Allenbaugh, Assistant Dean, School of Health, Physical Education and Recreation

Oregon State University, Corvallis, Oregon 97331—Dr. James W. Long, Director of Health, Physical Education and Recreation

Simon Fraser University, Burnaby 2, British Columbia, Canada—Dr. Glenn Kirchner, Director, Physical Education, Professional Development Center

State University College at Brockport, Brockport, New York 14420—Dr. Ruth Garis, Chairman, Women's Physical Education

University of California at Los Angeles, 405 Hilgard, Los Angeles, California 90024—Dr. Camille Brown, Chairman, School of Health, Physical Education and Recreation

University of North Carolina, Greensboro, North Carolina 27412—Mrs. Ethel Martus Lawther, Director, School of Health, Physical Education and Recreation

University of South Florida, College of Education, Tampa, Florida 33620—Dr. Louis Bowers, Chairman, Department of Physical Education

University of Washington, Seattle, Washington 98105—Dr. Ruth Abernathy, Director, School of Health and Physical Education

University of Wisconsin, Madison, Wisconsin 53706—Dr. Muriel Sloan, Chairman, Department of Physical Education

University of Wisconsin, Milwaukee, Wisconsin 53201—Dr. Elizabeth A. Ludwig, Chairman, Department of Physical Education

IMPROVING THE COMPETENCE OF ELEMENTARY SCHOOL TEACHERS

MARGARET AITKEN and CHAPPELLE ARNETT

A seven-week Institute in Elementary School Developmental Physical Education was conducted during the summer of 1969 at Western Washington State College, Bellingham, Washington. The Department of Physical Education for Women in cooperation with the U.S. Office of Education sponsored the Institute. A federal grant of $46,000 funded through the Education Professions Development Act (EPDA) was awarded to the college and the department. The major emphasis focused on movement education using child-centered methods as approaches to teaching *all* areas of physical education. Emphasis was also placed upon programs for the pre-school and primary grades.

The purpose of the Institute was to improve the competency of teachers responsible for the conduct of physical education programs at the elementary school level. Rigorous criteria were established for the selection of the participants in order to unite educators who could be most influential in making changes in physical education programs. Selection was on the basis of the teacher's professional qualifications and job commitment to physical education for the 1969-70 school year. All those selected teach some elementary physical education; for the majority 50% of their load is physical education. Participants were to represent classroom teachers at primary and intermediate levels and administrators responsible for elementary physical education. As the Institute was primarily a retraining program, the participants were required to have taught school at least three years.

The application for the Institute was accompanied by a recommendation from a principal and a representative of the superintendent's office which stated the teacher's responsibility in the elementary school. The application also asked for previous college records and a statement of professional involvement and educational leadership. From a total of 90 applications, 32 well-qualified participants were invited to attend, 24 men and 8 women. Half of the selectees were from the Pacific Northwest, half selected nationwide.

The Institute was among the first of its kind, and its content was carefully planned and coordinated. Established college courses comprised the major portion of the program: Human Growth and Motor Development (3 credits), Movement Education and Gymnastics for Children (2 credits), Games and Sports for Children (2 credits), Dance for Children (2 credits), and Physical Education Program for the Elementary School (3 credits). (Credits are quarter hours.) The nature of the institute required that each course not be taught as an independent class but integrated so that theory led to practice. Two lecture-discussion and two laboratory sessions were held daily, supplemented with demonstration lessons with children, small group discussions, seminars, films, and other educational media. Integration of the course content represented a major challenge to the faculty and required all resident faculty to participate in all aspects of the program and all class sessions. Available funds permitted the extensive use of visiting faculty with expertise in specific areas of the elementary programs, e.g., posture and corrective activities, creative dance.

The overall program was preplanned to permit flexibility and modifications dependent upon abilities and interest of the participants. Each participant was requested to indicate his goals and his areas of strength and weaknesses.

From the beginning an effort was made to utilize new methods and equipment for physical education—methods which would permit maximum activity for all children, permit each child creative movement activities, and utilize large apparatus such as climbing frames. Various equipment firms generously donated new equipment. The child-centered method was basic not only to educational gymnastics but to sports, games, aquatics, and dance. Participants developed lesson plans in these areas, a challenging assignment for most. Small-group discussions, consisting of eight participants and one faculty, were held about twice weekly. At the participants request, additional discussion times were arranged during early morning and lunch periods.

Innovation, change in education, issues in child-centered learning, developmental equipment and facilities for children, programs for atypical children, and in-service programs for teachers were topics included in the program.

Other aspects of the Institute made significant contributions. An evaluation committee, selected by the participants, served as a forum for participant opinions, problems, and suggestions for the Institute. The committee met regularly with the director, thus ensuring effective incorporation of their ideas and suggestions and maintenance of rapport. An Institute Reading Room was an important resource center. Current materials, books, journals, and research reports were made available. Supplementary materials were distributed in class. Participants were expected to read only moderate class assignments but were encouraged to read and explore areas unfamiliar to them in independent study. Social and recreational activities were largely handled by a committee of participants.

The faculty for the Institute were selected on the basis

Margaret Aitken is chairman, Department of Physical Education for Women, Western Washington State College, Bellingham, Washington: Chappelle Arnett is a member of the faculty of that department.

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of specializations and the general contribution they could make. Margaret Aitken served as director, coordinator of program, and consultant on facilities and equipment for elementary schools. Chappelle Arnett was responsible for the areas of growth and motor development, including perceptual-motor development and evaluation, and served as assistant director. LaVere Shaffer, also of WWSC, was responsible for movement education and gymnastics. Robert Bub, Greene, New York public schools, was responsible for curriculum planning, games and sports, and dance. Assisting in movement education and in games and sports was Michael Hardisty, physical education teacher at Trafalgar School in Vancouver, British Columbia. He was a graduate teaching assistant at WWSC having had his previous undergraduate education in England. Guest faculty in creative dance was Bruce King of Adelphi College in Long Island, New York. Alta Hansen, WWSC, taught for several days in the area of adapted and corrective physical education. Margie Hanson, AAHPER consultant in elementary education, brought information on current trends on the national scene and evaluation in elementary physical education as well as several new films. Other guest faculty included Evelyn Wiseman, WWSC, creative dance. Three state consultants in physical education, Howard Schaub of Washington, Stan Olson of Idaho, and James Goddard of Oregon, met with the group in two discussion sessions.

In-service Programs, Demonstrations

What of the short term results of such an Institute? All participants devoted considerable discussion time to ideas for developing in-service programs for teachers, for initiating change in their own programs, and for working with administrators, teachers, and parents to demonstrate new programs in elementary physical education. Each participant did the initial research and writing of a project for his school or district. The project was to be feasible, practical, and within the participant's area of responsibility and ability to implement. The projects were read and discussed with the faculty and other interested participants. Upon return to school the participant, with cooperation of school personnel, was to implement his program.

Institute participants, listed below, have agreed to act as resource personnel in their geographical area.

California: Lila J. Schram, Redland. *Colorado:* Betty M. Crona, Monte Vista. *Idaho:* Jack D. Acres, Boise; Harlan D. Bridges, Homedale; Kay Engelking, Nampa. *Louisiana:* Fannie M. Winston, Shreveport. *Minnesota:* David A. Olson, Duluth. *Montana:* Elaine Hoover, Helena; Bryce Myer, Polson. *Nebraska:* Roderick D. Clement, Grand Island. *Nevada:* Orville L. Halderman, Reno; Barbara A. Marsh, Las Vegas. *North Carolina:* Mrs. Jessie W. Moore, Raleigh. *Oregon:* David L. D'Olivio, Ashland. *South Dakota:* Douglas Evans, Sioux Falls. *Texas:* Robert Bradford, Houston. *Washington:* Richard C. Burnham, Seattle; M. Margaret Cadwallader, Kent; Jack J. Daly, Bellevue; Thomas E. Deebach, Everett; Ruth W. Fandek, Highline Schools; Bruce E. Flanagan, Woodland; Matthew P. Gefre, Toledo; Bernard J. Jagoditsch, Everett; Kenneth E. Olson, Richland; Lowell Sonmore, Seattle; Jack B. Wayerski, Bellingham; Larry Webb, Othello. *Wyoming:* Charles Adelman, Casper; Bertel O. Budd, Cheyenne; Jerry C. Cross, Buffalo; Kathryn E. Thompson, Laramie.

An additional outcome of the Institute was the publication of a classroom teacher's project, a pamphlet designed to help primary classroom teachers develop motor skills through movement education. Copies of *Classroom Capers* by Ruth W. Fandek are available from the director.

During the fall of 1969 the participants wrote to the director of the Institute to report progress on their project and other innovations that they had initiated in elemenary programs. Material from these reports was used in a newsletter distributed in late fall. In addition, participants have corresponded among themselves, distributing materials and ideas of interest to others. The director wrote to the participant's local school superintendent giving him the names of the teachers in his district who had attended the Institute and advising him that the teachers had agreed to be available as resource people for their state and district. The Institute director received many letters of acknowledgment and commendation on the work of the participants.

In the first four months following the Institute, 22 of the Institute participants have corresponded with the director regarding their projects. These informal communications revealed many successes using the movement education approach to teaching physical education. The letters indicate that some changes have been initiated: the teachers are using new methods in teaching, they are increasing the activity offerings in their own programs, and they are serving as resource personnel to classroom teachers and to their district. One classroom teacher has been relieved half a day to teach the primary physical education; several have acted as demonstration teachers. A number of the participants have conducted state, district, or school workshops and in-service programs in movement education. Some schools and districts have authorized the making or purchasing of equipment for elementary physical education at the suggestion of the Institute participant. About four perceptual motor programs for preschool and primary grades now under way were planned as projects at the Institute. Two participants have indicated that they have been asked to serve on curriculum committees for their district, one as the chairman.

Less Regimentation, More Action

In general, the changes brought about indicate that in the schools where the majority of participants (of those who reported their work) are teaching there is less regimentation and more total action and enthusiasm on the part of the students. Not all participants accepted the child-centered approach to teaching physical education with equal enthusiasm. Similarly, not all teachers with whom the participants are working are convinced of its merits, but the general response has been very favorable.

Was the effort worth the taxpayers' money? Did it improve educational programs? Did it change the traditional system for the better? It is early in the implementation of programs, yet 68% of the participants indicate they have made some inroads into improving school programs and some of these will influence district curriculums. The future for elementary physical education throughout the United States seems bright, but the needed changes will take some time to reach all districts. A retraining program such as the EPDA Institute and teachers dedicated to children can provide the catalyst for initiating change.

Teacher Education: One Minute to Midnight

L. F. Locke, University of New Mexico, Albuquerque, New Mexico

For three days I have sat in on and listened to as many of your meetings as time and schedule would permit. There has been talk about curriculum, public relations, learning environments, aesthetics, the nature of children, open schools, early childhood education, and administrative formats for physical education programs. In short, there has been a great deal for me to hear about the subject matter, the clients, the teaching methods, and the social-political status of elementary school physical education.

Looking back over the experience, an interesting fact emerges. All that I heard has told me a great deal about *what* elementary school physical education teachers should teach — for which I am grateful. In contrast, however, there was surprisingly little to hear about *how* we should go about teaching elementary school physical education teachers — a fact which leaves me both puzzled and distressed.

What teachers teach could be the focus for a curriculum conference or the focus for a teacher behavior conference or even a conference dealing with how children learn to move. In contrast, how to teach teachers is the only topic that can be the focus for a professional preparation conference. Clearly that topic has not been at the center of this meeting. Why do you think it worked out that way?

There seem to be three possible ways of accounting for your behavior at this meeting: (1) you think you already know how to teach teachers and really don't need to talk about it; (2) you think it is not your job to wrestle with the problems of teaching teachers because someone else is in charge of making those decisions; or (3) you feel that how teachers are taught does not matter so long as you have the curriculum and credits correctly arranged.

We can dismiss the middle possibility out of hand, because there certainly is not anyone else who cares about teaching elementary physical education specialists. Which leaves: "Do you really know how?" and "Do the methods by which we teach teachers really make any difference?" My answer to those questions is: "No, you don't," and "Yes, they do."

What we have been doing for decades is giving courses, arranging credits, organizing majors and minors in various patterns, tinkering with requirements and electives, providing a bit of observation, and topping it all off with some practice teaching. The end product of that process was intended to be a young teacher — ready to take his place in the profession and in the schools. Those are the methods by which we have taught teachers. By extension, those are the methods of teacher education which have produced what we now have in the public schools, and three days of listening have convinced me that many of you are far from satisfied with what you see out there.

Is it possible that some of you have made an error of logic? Some people believe that by improving the content of what you teach teachers you will improve the performance of those teachers in the schools. Half a century of experience in teacher education suggests that those people are wrong. They have reached the wrong conclusion because they have failed to understand that the medium is the message and the medium of teacher education is all of the experiences trainees have within the training program.

The complete training program is a social as well as an intellectual environment. The program is a place for learning what to value, a time for learning what a teacher is, and what really matters within the walls of a school — all of which have little to do with either how or what to teach. It is the subtle message about values and roles, engendered by the experiences and environment of professional preparation programs, that are responsible for present conditions in school physical education, not what teachers have been taught about what to teach.

Let me argue the point very simply. I don't think many will disagree with the proposition that for two or three generations, at least, we have been teaching a brand of physical education to trainees that is substantially superior to what they practice when they get out in the schools. Yet, a large part of this conference has involved discussing an even more superior brand of physical education which trainees still will not practice in the schools.

Your situation is like that in an old joke. The county agricultural extension agent found a great new fertilizer and brought some out to the farmer to explain its virtues. When the agent came back a week later, the bag still was sitting there in the barn, so he asked the farmer: "How come you haven't tried the new fertilizer? If you would use it, why I think you could farm this place twice as well." To which the farmer replied: "No point in bothering. I'm not farming near half as well now as I already know how." The degree to which you have focused your attention on curriculum content and teaching methods is the degree to which you risk the trap that ensnared the extension agent — bringing fertilizer to people who do not go out and do their job one half as well as they already know how.

One half of the problem with teacher performance lies in the structure of the public schools and in how that powerful organization shapes teachers' behaviors — often in ways that are alien to the value commitments of the training institution. The other half of the problem lies in what the trainees learn about being a teacher that isn't in your professional curriculum at all. These learnings arise from the unintended messages that are transmitted in how you teach professional courses and in the thousands of encounters the trainees have with you, with each other, and with practitioners from the world of work. The shaping forces of the school society and the shaping forces of the college society are major elements in making teachers what they are. In those complex sub-societies rest the real forces of professional preparation, and the elements to which you must give your consideration in any attempt to create better teachers.

At this conference there has been too little talk and serious discussion of the dynamics of teacher education — something that is beyond credits and requirements. You have not thought enough, studied enough, or reasoned together enough about the substance of how to teach teachers to satisfy me. I wonder how well in the long run it is going to satisfy you.

From my vantage point there *has* been a central theme for the conference. Most of you want to provide experiences called physical education for more

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children, in more elementary schools, conducted by proportionately more teachers who specifically are prepared to work with that subject matter and that age group, and to do it all much differently than presently is the case. To that central theme I will add the obvious logic. To accomplish such ends you are going to have to change what is being done in the schools and what presently is being done in teacher training institutions.

All of this seems clear and logical, perhaps even simple, because it is what everyone knows and has agreed to. For that reason it makes more sense for me to talk with you about some things that do not already have your agreement, or which you may not have had an opportunity to think about.

First, let us examine the context — the world of education where you must go to hammer your dream into reality. Events in education, as everywhere, are the result of confluence — the coming together at a point in time of people, ideas, and institutions. The elements come together at the intersection and bump. Some fly off on a new path. Others stop, their momentum dissipated by the collision. A college president meets a student rebellion — bump; your car meets the corner of the garage — bump; a boy meets a girl — bump; a teacher meets a child — bump; all of these are the confluence of events at a point in time. To all this there is a quantum of accident that gives flavor to our intentionality, the quality of surprise that adds zest to life.

You as individuals and the idea of specialists in elementary physical education have arrived here, at this point in time, as a vector bound toward the future. You were set in motion by things that happened before — the bumps of the past. Some past events are obvious: the perceptual motor training movement, educational dance, movement education, patterns of prestige in the public schools (in which promotions always are up — never down); the preoccupation of teachers' colleges with secondary school programs, early childhood education, patterns of federal funding, and personalities within the profession.

All that, however, is history, for now you are here and this "now" is a special and unique moment. To disagree for a moment with Gladys Fleming's earlier remarks, you now are thinking and talking about the preparation of the elementary specialist in a way that genuinely is new in the history of your profession. The discussion is new because, while many of the procedural elements may be substantially unchanged, your real objectives have become at least partly social and political. When 300 people can get together and talk as seriously and extensively as you have about the business of making elementary school physical education the central thrust of our profession, they must be talking organizational politics and they certainly are not reflecting traditional values.

You and your revolutionary idea have become a single vector moving into the educational arena. Inevitably, you are going to collide with other educational vectors. Here, of course, the vector analogy breaks down because you are not riding as passive passengers on a mindless event — you are steerable. You can dodge, maneuver, and form alliances. In other words, you can act with rationality. That capacity, however, always is limited by how well you understand the context. In the words of The Musicman, "You Gotta Know the Territory," because there are other ideas, both new and old, which appear to be bound toward you on a collision course.

The first significant element in the arena is the institution of teacher education as we know it — the college or school of education. It may be that you have arrived at your moment of destiny, ready to change the direction of the profession by training large numbers of genuine elementary school specialists in an institution that is about to disintegrate.

It is hard to be sure about such things because our perspective always is so limited in time. When you reach a crisis in human affairs, it is not always easy to tell if it is a crisis that marks the beginning or the ending of something. It is possible, however, that university based teacher education, to use Edward R. Morrow's dramatic phrase, is at "one minute to midnight." Just as men die, institutions die, traditions peter out, great theories are disproved, and enterprises are wound up. There is a midnight stroke for all things and the college of education is just a social institution, not a somehow permanent feature of our world.

Teacher education as we know it, a university based, university controlled, degree bearing program of study and practice, shows signs of severe crisis. Teacher education, and colleges of education more specifically, have been in trouble before. There has been a kind of cyclicity to their crises. The carousel, however, now has brought us to a new kind of storm. You don't have to subscribe to Goodman, Kozol, or Hold to know that the schools are in trouble — you just have to be a parent. Likewise, you don't have to subscribe to Conant, Kerner, or Silberman to know that teacher education institutions are in trouble — you just have to be a professor (or a trainee). Everyone now is in on the act — students, parents, politicians, teachers, unions, minority groups, administrators, and, as always, the teacher educators (surely the most self-critical group of professionals in our society).

Teachers' colleges have all the problems of the university — most particularly they now serve too large a portion of the intellectual spectrum within each age cohort for traditional assumptions about higher education to function without great difficulty. In addition to that, however, the college of education has its own cluster of private problems.

The college's first problem is the century old failure to make allies in the wider university. Such isolation makes the college particularly vulnerable at a time when it appears, to use E. R. Collin's succinct phrase, imperative and impossible to work with colleagues in the arts and sciences.[1] Professional education and the disciplines now appear to share the most fundamental kind of problem within an institution — a failure of respect and mutual confidence. The significance of the problem rests on the fact that in nearly all teacher education programs the trainees spend the largest single portion of their time in courses outside the college. Significant improvement in teacher education thus rests in some measure on bridging the gap between academic and professional elements of the student's experience.

The college's second problem lies in the long history of exploitation of the public schools and school practitioners by the colleges of education. There never has been any adequate recompense for the burden of being a supervising teacher or the disruption of serving as a clinical school. Those token remunerations: the $50.00, the free university credits, the dinner in the

[1] E. R. Collins, "The Impossible Imperatives: Power, Authority and Decision-making in Teacher Education," 12th Charles W. Hunt Lecture, Annual Meeting of AACTE, February 1971.

college cafeteria at the end of the year, (at New Mexico we give football tickets to the supervising teachers — in the end zone), all are forms of exploitation.

Only those racketeer teachers who take student teachers in order to steal time to drink coffee in the faculty lounge come off with any kind of bargain. The rest are cheated because they take trainees as a professional responsibility — and all of us know what the proper payoff is for the execution of professional responsibility. The only reasonable quid pro quo is a meaningful role in making decisions and policy within the training program. Unfortunately, the colleges never have been willing to give that recompense.

The fund of antipathy that has accrued from the exploitation of schools and teachers is due to be paid. Teachers and administrators I meet everywhere are sick of being used by colleges (and too often being typified by the trainers as "badies" in the bargain). Teachers want a piece of the action and a substantial piece. With the growing power of unions and a reorganized NEA, teachers may at last have the muscle to get what they want.

Consider this quote from a recent TEPS position paper: "Teachers must have the major voice . . . they must be largely responsible for determining who shall be candidates for the profession and by what standards teachers shall be prepared (including accreditation of institutions)."[2] When TEPS says "teachers," they don't mean the professorial staffs in teacher training institutions! Colleges of education, by exploitation of the schools, have forfeited the confidence of teachers in institutionally dominated decisions about training. One consequence of that loss of confidence will be erosion of unilateral control over teacher preparation.

Another consequence of the college's declining credibility will be the development of alternative routes to certification. Some of these will be partly or wholly controlled by teachers, and some will be partly or wholly outside the university structure. There already are school-centered training programs for teachers in several states.

An illuminating example of alternative routes to certification is contained in New York's Fantini Report.[3] The condensation appearing in the June, 1972, *Phi Delta Kappan* should be read with care, however, because it is a guarded document. The report contains a plan to relocate certification, provisions for field experience and definitions for competency, in places called "Teaching-Learning Centers" — which turn out to be public schools. The plan relegates to the colleges the "academic and scholastic dimensions of professional preparation." While it is difficult to translate those high-sounding words, they may indicate "all those courses in history, psychology, and philosophy in which we never put much stock anyway!" The Fantini Report suggests that it soon may be possible to make teacher education an all-graduate enterprise, recruiting trainees from undergraduate programs in the arts and sciences. In sum, the Fantini Report is a scenario for the demise of the college of education in its present form.

The Fantini Report did not arise solely out of the ravages of exploitation. There are more subtle and lethal forces at work. While some of the cover stories sound mildly positive, "new routes to certification will provide new kinds of opportunity in teaching," and "alternative forms of training will take the pressure off the colleges," there is strong suspicion that many people no longer believe in the teachers' college.

In straight language, many people feel that the college of education has had its chance — and has blown it. The colleges too often have proved unable to make significant changes in their programs, proved too rigid, too locked in with history to respond to new opportunities and responsibilities. The colleges placed 190,000 new teachers in the public schools last year alone, and the majority of those teachers were not prepared to do things much differently than they have always done — in a society that is undergoing dramatic change.

The colleges are trapped by the structures they have created, by their own Frankensteins: the courses, the faculty expectations, the legacy of state certification, and the implacable fiscal arrangements built around the credit system. The colleges of education also are trapped by their own momentum, or to be more accurate about many cases, by their own inertia. Many faculties cannot step outside the presumptions of day-to-day operation long enough to discover ways of revising their programs. The simple fatigue of over-commitment limits many faculties to tinkering rather than meaningful revision.

There appear to be only two solutions: (1) get out of the box and start a new college (which is what they did at North Dakota), or (2) get off the world for awhile by leaving the college for a period of hard thinking and planning, and then return for a fresh start (which is what they did at the University of Massachusetts). Those solutions, however, require more courage, more money, and more sheer dissatisfaction than most of us can muster.

It is not only the faculties that feel trapped. Increasingly, the people who fund the colleges feel trapped as well. In Washington, in state departments of education, and in state legislatures, you don't have to look far to find a man who considers the average college of education to be a rat hole down which it is unwise to throw any great sums of money.

Unfortunately, getting out of the box or stepping off the world costs a lot of money. The colleges that received massive infusions of funds to support dramatic revisions in their operation may now survive as curiosities, relics of an age past, when training institutions might have used federal monies to break out of their traps. That age is gone, possibly forever. Given the over-supply or under-consumption of teachers (at the level of admission to training programs it's all the same) and the ineffectual response of college faculties and administrations to that condition, it would be surprising indeed to find the purse-string people in Washington anxious to pump more money into the colleges.

One direct reflection of governmental disenchantment is a new strategy called Teacher Renewal. You may not yet have heard of Teacher Renewal, but I predict that you will and for a long time to come. Renewal constitutes a major new strategy to which the Office of Education already is committed. The Renewal plan will invest money and program control for all kinds of educational enterprises, including some aspects of teacher training, in locally based centers operating under local control.

Obviously, Teacher Renewal is a response both to over-production and to the concept of community accountability (the latter being a word taken very seriously in Washington). At a deeper level, however, Teacher Renewal is a

[2] NCTEPS-NEA, "The Meaning of Accountability: A Working Paper," (Washington, D.C.: The Association, 1970), p. 6 (mimeo).

[3] M. D. Fantini, "The Reform of Teacher Education: A Proposal for New York State," *Phi Delta Kappan* (April 1972), pp. 476-79, 82.

response to disenchantment with university based teacher training. Although the intent is vigorously denied in the Office of Education, Renewal will operate to bypass colleges of education in the allocation of funds for many aspects of teacher preparation.

So much for the college of education — out of friends, out of money, out of credibility, and possibly out of nerve as well. Those of you who hope to initiate new training programs for elementary specialists have good reason to consider the capacity and viability of the institution in which you must work. The lean year we are just completing may prove to be a standard for the decade to come.

Whatever the destiny of the college of education, you will have to confront a host of others vectors, each working out its own place in education: behavioral objectives, differentiated staffing, competency based teacher education programs, open schools, teacher militancy, and unions. Each of them will have its own impact on any proposal to train elementary school specialists.

As an example, consider the concept of accountability. While it is anything but new, educators seem ready to understand and apply it in new ways. Anyone interested in the physical education of children cannot afford to misunderstand the logic, advantages, and potential dangers of accountability. By this summer there will be courses dealing with accountability for physical education, if there are not some already. What do you think will be in those course outlines? What is easiest to measure and count in children's physical performance? Think about it. Worry about it! What will elementary school physical education programs be held accountable for and how will the gains be measured?

If the colleges of education do manage to limp along, if there really is a market for large numbers of physical educators in the elementary schools, if you can win the support of departmental faculties, then some of you will have the chance to pursue your fine vision. The difficulty for me is that there seems to be a serious mismatch between your curricular dreams and your training schemes. The former, your dream of a better physical education for children, is represented in the best of what has happened in elementary school programs over the last decade. Many of the developments have been exciting, daring, and carefully articulated to the needs of children. The latter, your plans for producing the teachers needed to implement the new curriculum, seem by contrast pedestrian, vague, and too often just plain simplistic.

The creation of a new breed of teacher demands something superior to the usual Rube Goldberg contraption which weds a washing machine motor to a Mercedes. By reshuffling content into new packages of credit allotments, by changing course titles, by altering administrative arrangements, by increasing the volume of field experiences, and by generally prolonging the period of incarceration for your trainees, you can manage to create something that looks new. There is a high probability, however, that you will be substituting one inadequate plan for another.

If you don't break out of the box in which so many physical education departments are trapped, you will not get the kind of teachers you want — you will get the kind of teachers you always got. There will be good ones and bad ones, and too many who see themselves, children, the learning process, and the subject matter of movement in ways that are inimical to your goals.

Obviously, if we knew exactly how to teach teachers, we would not be here talking about it. In my own head, however, there are a few key elements that are worth your careful consideration. The first is the toughest, most costly, least romantic, and, for some, the most frightening. This element is first because over the long haul it matters more than anything else. It is the need for the empirical study of teacher training as a process. It is our need to acquire a body of hard knowledge and a set of theories that can tell us something about how a teacher becomes, and how teacher training ticks.

You should be cautious about chalking up the point about our need for inquiry to the fact that I am the usual research nut — because I am not. I could not disagree more with Bob Fleming's comments[4] of this afternoon. Generally, elementary school physical education teachers neither need nor can use research. Teachers need the end products of research — proven ways of doing their work better. We need research development and dissemination, not more copies of the *Research Quarterly*. There is no reason to believe that translation attempts, such as "What Research Tells the Teacher," ever have or will influence teacher behavior in the gymnasium. The last thing the elementary school needs is a research shelf. The academies have been playing that put-down game with us for too long. Neither the teachers nor the researchers know what research results mean for the world of practice. Translating research reports into usable operations is the highly technical job of trained men called research development specialists, not school teachers.

Here, however, we are not talking about public schools or elementary teachers. We are talking about colleges of education with professorial staffs. Teacher educators have both the capacity and the obligation to use knowledge in regulating what they do. Unfortunately, the total body of knowledge concerning how we train physical education teachers (and I mean what we know, which is an expensive commodity when compared with what we believe, which always comes cheap) can be placed in a briefcase along with lunch and a thermos of coffee and leave lots of room. What we know about the more specific matter of training elementary specialists can be written on the back of your conference program and leave lots of room for doodling.[5]

It is important to understand that not having a knowledge base has no special significance, unless you have made particular presumptions about how best to design training programs. Must you have knowledge in order to train teachers? Of course you don't have to have knowledge to train teachers! We have been doing it for 70 years without any knowledge. Teacher education is like journalism — you have to produce something now and cannot wait until all the facts are in. So we have used a blend of art, instinct, common sense, pragmatic experience, personal taste, popularity, tradition — and a bucket of hope. It has worked just well enough to keep us from being driven to find a better basis on which to construct training programs. So we putt-putt along in our washing machine-powered Mercedes and, because we get there eventually, producing some good teachers and some poor teachers, no one is inclined to get out and look under the hood.

I am convinced that knowledge can lead both to better mouse-traps and to better teacher education. Whether you want better teachers badly enough to

[4] R. S. Fleming, "Leadership in the 80s," Sixth General Session, April 29, 1972.

[5] Readers interested in research on teacher education are referred to the bibliography at the end of this article.

pay the price for the needed inquiry is a value decision you must make. The standard, however, is easy to establish. Every faculty which decides to get into the elementary specialist business should, as a matter of professional responsibility, commit a portion of their resources to systematic self-scrutiny. Every such faculty must undertake some form of inquiry in which what is done to the trainee serves as an independent variable and how the trainee ultimately behaves serves as a dependent variable. At the very least, every program must have some systematic evaluation of its products which can be fed back into the process of program adjustment.

A second key element in producing the teachers you need will be how you regard your trainees. At what level are you prepared to encounter them? How do you feel about people who are struggling with the kind of growth required to become a teacher? In large part, your answers to those kinds of questions will determine how the trainees come to feel about themselves. If you want them to see themselves upon graduation as competent, effective professionals, then they must be treated like that from the start.

There is ample evidence to indicate that attitude toward the self is a potent factor in teacher effectiveness. To use an unpleasant, even ugly term from a recent book by the same name, if you treat "students as niggers," then it is unreasonable to expect strong professionals to come out of the pipeline. The book, by the way, is not about race, it is about a destructive social role. There are distressing signs of that role in too many college physical education departments: discrimination, tokenism, and an awful paternalism. In some departments there is a clear pattern of pathological relationships which prevents both students and faculty from growing together.

The complexity and difficulty of what you have proposed at this conference demands that you take your students into real partnership, even if in clearly different roles and with clearly different responsibilities. If trainees are not partners in professional preparation, they will be dependent children at best and, at worst, they will be shaped into members of that ugly role.

Meaningful participation means a voice in planning, evaluation, and policy construction. These demand a structure for student and faculty cooperation that goes beyond the level of the annual picnic and a focus for growth into professional responsibility that goes far beyond the average student major club.

At a deeper level, perhaps we need to identify a new brand of professionalism. Looked at closely, the demands we have made for student professionalism too often have consisted of little more than the demand for a conservative life-style, loyalty to middle-class values, and plenty of deference to administrators. Worse, perhaps, too many signals tell trainees that studied silence or evasions are the proper response to questions concerning problems in our school and college programs. By identifying professionalism too closely with not rocking the educational boat, we have converted young dreamers into what, at best, are competent technicians. At worst, a professionalism like that spawns the living dead who are certificated to wander like zombies through four generations of children.

A new kind of professionalism could mean holding out the demand for deep personal commitment to making teaching better — to life as a student of teaching. If professionals are to struggle toward better teaching and better schools, that struggle can only mean change, and change means difficulty. If our students are to be committed to the difficult tasks of educational change, they will have to use power and influence — things that are not bestowed as a reward for sitting quietly in the middle of the boat. Power is something that must be seized with daring and used with skill.

As professionals, I think students must be ready to intervene in the political processes of the public schools. They must know how to form alliances with like-minded people and how to build support bases in the community around them. In short, they need what Leo Postman has called the tools of "soft revolution."[6]

How many of your graduates know what a Board of Education is? Half of one of my recent classes were not really sure we had one at all! How does the board relate to the principal's decision-making process? What sorts of things really influence voting patterns on school issues within the community? Within what limits can groups of concerned teachers act to influence educational policy? Answers to questions like those, and hundreds more, must be in the survival kit of any new teacher prepared for dynamic professional membership.

Moving from the political to the personal, if teacher educators really want to produce a better product, they will have to give more thought to the development of trainees as people. The idea that all the students who have elected to become physical education teachers have resolved all their basic value and identity conflicts, or that they will resolve them simply by taking classes and getting older, would be funny if it did not have such tragic consequences.

Physical education majors, like other young adults, need serious and substantial help with their problems of unfolding as people, as well as their growth as teachers. Trainees need your help in the serious sense that was underscored by Arthur Jersild when he wrote *When Teachers Face Themselves*.[7] You must help them face what we know are the hard realities of a career in teaching: the dilemmas that come with the use of authority, the problem of handling aggression (which frightens so many young teachers), the loneliness of teaching, and the sense of helplessness that engulfs us all from time to time. That kind of assistance cannot be packaged in 15 credit-hours of orientation and methods (plus a term paper or two). Those are human problems and require intensely human strategies for resolution.

Teacher educators also must give much closer attention to the signals given trainees concerning how a professional feels about his subject matter. Few of us take the time to notice this crucial trait in our trainees, much less make special provisions for it within the program. Many students graduate who really care very little about their experiences in movement. They never have placed much value on those experiences and certainly have never thought deeply about them. Teachers like that can become contributers to the endemic disease of physical education — dullness.

An exciting teacher in any subject is one who is turned on by his sport. Jack Frymier said a long time ago in another speech that we need teachers with "hot feelings about cold subjects." In physical education there is no substitute for getting pleasure from movement, satisfaction from mastery, and excitement from the struggle.

[6] N. Postman and C. Weingartner, *The Soft Revolution* (New York: Dell Publishing Co., 1971).

[7] A. Jersild, *When Teachers Face Themselves* (New York: Teachers College Press, 1965).

Unfortunately, administrators seem forever searching for a substitute. I know programs where you can't play with the children while in teaching uniform and other programs in which active teacher participation is considered unprofessional at best. If you are hooked on movement, a real user (perhaps we should say "pusher"), rules like that are a constant source of irritation.

If your graduates are going to get children high on sport and dance, they must be hooked on movement themselves. The corollary of that fact for both teacher education programs and teacher educators is too obvious to miss. The meaning and joy of effort in movement must be held at the center of professional life.

A key factor, both in what the trainee feels about movement and in the pedagogical skills he develops, will be direct experiences with children. Throughout this convention people have been talking about the need to expand school experiences for the trainee. The difficulty, as many of you know, is that it is easier to talk about "more" but far harder to decide about "more of what?" There is evidence that field experiences can have a negative impact on the growth of a teacher (some research indicates that this may be a special problem in physical education). Clearly then, the matter of field experiences for your teachers demands more than a simple commitment to greater volume.

Certainly, experiences with real children and real schools must be placed earlier in the trainee's program. The common pattern of four years of preparation followed by an eight-week encounter with the real world is pedagogical madness. If the trainee is to have the time necessary to define himself as a teacher (even to decide whether or not he wants to be a teacher), he has to be involved with the real stuff right from the start.

What the student encounters in his field experiences matters a great deal. While it is important for him to confront the schools as they really are, it is equally important to help him distinguish between what is and what might be. If your trainees have to spend significant amounts of time with teachers who are dull or harsh, then that experience only will serve to reinforce the 12 years of dull and repressive physical education many of them bring to the training program. The inevitable conclusion drawn from such field experiences is that dull and harsh is how it has to be.

Some of you should be bedeviled by the question: "Where will I find master teachers with whom to put my students so that they will grow rather than shrink?" Any professional faculty that hopes to produce fine elementary specialists will have to find a cadre of such facilitating practitioners. Where they cannot be found, they will have to be produced. That means getting into the business of in-service training and educational change in the public schools — a heavy burden to carry in addition to teacher preparation.

My suspicion is that more of you will have to get involved in such tasks than will be able to avoid them. There really is no choice. Either the master teachers and clinical schools are working in concert with the training program, sharing its values and reinforcing its definition of good teaching, or the master teachers and clinical schools will be working against the training program. In teacher training, to be neutral is to be hostile. The best program in the world can produce trainees with the desired behaviors and values — but any public school that does not share the same values can reshape the trainee in a few days.

All of the foregoing which I consider to be some of the key elements in shaping effective programs for training elementary specialists, points toward a single final fact. If you want a new breed of teacher, you will need a new breed of teacher educator.

Teacher preparation programs are not rationalized industries. There are real limits to the system management approach which conceives of the training system as a set of input, throughput, output, and feedback components. The heart of a teacher preparation program lies not in the catalogue, the facility, or even in a set of carefully designed and integrated training experiences. The heart lies in the day-to-day human contacts within a social group, many of which are unplanned and which draw upon what the participants are, rather than what they know. Just as our nonverbal signals tell others far more than our words, so it is that the informal and personal elements of a program tell trainees the most about what it is to be a teacher and a professional.

The only place to start is with teacher educators who can do what you want the trainees to learn to do. That hardly is new. For years we have known that teaching by example is not just the best way to teach — it is the only way.

If you want children to become creative, autonomous, expressive learners, then you must have teachers with those qualities. And it follows as the night the day, that you must surround those teachers during their formative training years with teacher educators who have those qualities too.

When students see around them professors whose real lives are lived elsewhere, in coaching, in the laboratory, at home; when students see professors who have little talent for what they are doing; when students see professors who urge one teaching style and use another; when they see professors who are not still growing into their powers by being students of teaching, the end result is predictable. Some of those students will become good teachers, some will be poor, but the majority will be indifferent — because indifference has been the salient message of their training experience.

We need the kind of teacher educator who persistently asks the question: "What difference does it make that these trainees are here with me rather than somewhere else?" and then really worries about the answer! To achieve that, many professors will require their own form of teacher renewal. Given encouragement and opportunity to focus upon the fresh challenge of preparing elementary specialists, many professors will respond with creative enthusiasm, but not all. Any faculty which does not squarely face the fact that some professors must be removed from contact with trainees is engaging either in self-delusion or indifference. Your ambitious plans leave room for neither.

Where are we now? You are about to go home and the concept of elementary physical education at the center, rather than the periphery, of our profession must keep its appointment in the arena of education. There will be some rough bumping with other concepts. Some will assist you, some may deflect you in surprising and happy ways, and some can stop you in your tracks if you don't use your capacity to take evasive action.

Many of us sense that it is late, very late, to start such an effort. Perhaps it already is one minute to midnight for physical education in the public schools. Perhaps we are riding those grim secondary school programs down a path to destruction, unable to jump off in time.

The task is going to be yours. You will need all the powers of your rationality to think it through — to use

your knowledge of the territory. You will need all the strength of your courage — to try things which have not been tried, and which may fail. You will need all the perspective of your humor — to avoid the terrible trap of taking yourselves too seriously. Humor, courage, and rationality add up to the human quality called grace. This convention has drawn together some of our profession's most graceful people. Perhaps you have walked past midnight, toward the dawn, and never realized it. Instead of 23:59, perhaps you have made it 00:01 — a time of beginning.

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