The optimal place to accentuate a sound physical fitness program for children at the elementary level is within a well-designed playground. The playground can offer natural fitness development and within this setting the physical education teacher can be the most influential with all children, not just with those who are physically active and aggressive. The primary feature of a well-planned playground is the interlinking of structures and play components that allow for continual movement and interaction opportunity. Thus, a smooth natural integration of all physical development components and related activity options is achieved. All the physical fitness feats methodically worked through in the traditional physical education class are evident in children's free play behavior on the playground. The child is engaged in physical fitness training but isn't aware of it. (JD)
The Potential of the Physical Education Teacher as Play Leader

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We are producing a generation of kids who, in general, are physically inept. Motor skills that help build fitness as well as self-esteem in children have been declining rapidly during this decade. The physical fitness boom has had some effect on the adult population, but unfortunately has not had much effect on children. American school age children are fatter than their 1960's counterpart and only half of them get the exercise they need for healthy bodies. Children simply aren't establishing the exercise routines needed to achieve the lifetime fitness skills required to promote good health and motor acuity needed as adults (Ross and Gilbert, 1985).

Studies by the President's Council in Physical Fitness and Sports (Washington, D.C.), the U.S. Department of Health and Human Services (Washington, D.C.) and the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) indicate that the physical fitness statistics for our children are appalling. One-third of boys ages 6 through 12 cannot do more than one pull-up, while the same is true for 70% of girls ages 6 through 17 (Young Children, 1988). About one-half of girls 6 to 16 and 30% of boys 6 to 12 cannot run a mile in less than 10 minutes (Dennison, et. al. 1988). Why is there such poor physical performance demonstrated in America's Children? Maybe we frown on girls who play rough and favor sports; maybe children indulge in excessive television viewing; maybe parents of "latch-key" children discourage them from outside play after school; maybe the vast urbanization that has occurred during the past 20 years has squeezed out the natural play space utilized by children; maybe the formal play environments we do manage to provide are unappealing and thus ignored.
Whatever the reason(s), we are producing a generation of children who do poorly on the national standardized Youth Fitness Test and, by implication, have a high probability of becoming sedentary adults and developing serious health problems. As children become less active they become more susceptible to hypertension, heart disease, diabetes, psychological disorders, impaired heart tolerance and other related ailments as they move through adulthood (Dennision, et. al. 1988). The American Academy of Pediatrics reports that up to 50% of American children are not getting enough exercise to develop healthy hearts and lungs. Forty percent of 5-to 8-year old children show at least one risk factor for heart disease - elevated blood pressure, high cholesterol, or physical inactivity (Young Children, 1988).

Fitness Help Agents

It seems clear that both the parent and the school need to encourage kids with low fitness test scores to become more active and increase fitness and endurance. Parents can set good examples for their children by practicing fitness skills themselves, and by simply turning off the T.V. and going outside to play with their children. Becoming a sound model and active partner in children's play would be a giant step in the right direction. The average school age child spends 80 percent of his/her exercise time in church, community center and youth group-sponsored activities (Ross and Gilbert, 1985). Parents also need to reinforce the child's participation in these settings.

The school, on the other hand, has a more complex dilemma. With greater national emphasis on academic competence many classroom teachers are
side-stepping traditional recess opportunities in favor of additional subject time. It appears that schools are resting the brunt of responsibility to provide a physical period for children squarely on the shoulders of the P. E. teacher. Given this responsibility, does the P.E. teacher have the means that enables him/her to accommodate the many needs for physical fitness and related developmental concerns centered within each individual child?

The P.E. Teacher's Role

It may be time for P. E. teachers to come to terms with their worth to their program and to children's development. P. E. Teachers must reexamine their program and like any other teacher that serves within the child's curriculum, determine if that program meets the developmental needs of all children. Program objectives that promote skill development must be examined within the context of several important conditions: teacher/child ratio, level entry of each student, physical facility, and available equipment and materials. These conditions weigh heavily on decisions to implement any alternative program, no matter how practical or philosophically sound those alternatives may be.

The P. E. teacher must take into account the many children who have tendencies to shy away from tasks or activities at which they may fail. This is a natural reaction that guards against damage to one's self-esteem. It is basic to behavioral understanding to expect those who succeed to seek more opportunities to succeed, while those who fail to avoid further encounters that would spotlight their weakness. This relationship lends credence to the 1985 School Fitness Survey that indicates that children who enter school in
rather poor physical shape seem to continue to have poor physical fitness attributes though the remainder of their childhood and adolescence (Santrock, 1988). It may be necessary, then, to focus on the preschool years as a good time to have children begin a regular exercise program. While the elementary school P. E. teacher doesn't generally work with "preschoolers" he/she does work with and has tremendous influence over the rapidly developing physical bodies and mental attitudes of kindergarten children. Havighurst (1979) suggests that values and attitudes are well defined by age 10 and change very little after that. The greatest impact on the development of positive attitudes toward fitness and self and subsequent behavior, then, occurs during the early physical education experiences. It is from the child's very entry into the elementary school setting that a sound curriculum be established that will enhance not only the child's motor skills, but also enhance the total child developmentally and ensure a positive attitude toward lifetime fitness skills and good health.

In developing a good fitness program it is important to remember to balance periods of fitness development with periods of skill instruction. Skill instruction often predominates a child's physical education class, with fitness instruction taught only when there is enough time left to do so. This may leave the impression with a child that fitness is not a very important component of physical education (Pangrazi and Hastad, 1986). If fitness instruction is taking a back seat to skill instruction it may be inferred that there is little teacher planning and/or the P. E. teacher finds the traditional fitness routines as boring as the children do. If we don't want
children growing up thinking of physical fitness only in terms of calisthenics and running laps, the P. E. teacher must engineer a daily fitness program that is interesting, creative, motivating and enjoyable - no less of a curriculum effort than is expected from any good teacher.

Figure 1 represents examples of standard goals for Physical Education programs. The philosophical intent of these goals is sound. It is the traditional implementation of fitness activities that is in need of reconsideration.

Insert Figure 1 about here

Attending to Individual Needs

To stimulate children toward an interest in their own physical well-being a stimulating learning environment must be established. Traditional physical fitness activities (See Figure 2) implemented to satisfy developmental goals and objectives may, at best, be just going through the motions. Often understaffed, with classes that are too large, the P. E. teacher can provide only minimal attention to individual children.

Insert Figure 2 about here

All too frequently the attention that is given is focused more on the child who is active and already physically assertive, while attention is lost to the child who is quiet, shy and physically inept. Like in any subject matter a teacher is likely to focus more often on those children who reinforce
their own teaching - those children who provide correct responses or exhibit the proper behavior reinforce the teacher that she/he has taught, and the likelihood of those children being called on again are increased. Thus the non-reinforcing child often gets unintentionally ignored, and consequently falls victim to the teacher's lack of leadership for that particular child's developmental advancement. Because of this natural phenomenon the P. E. teacher must establish a workable environment that allows maximal opportunity for (1) teacher observation of all children, (2) developmentally appropriate physical encounters with the environment, and (3) teacher analysis and personal interaction with those children who need individual attention the most.

The Play Environment

The most workable environment for children to learn about "self" is an environment that allows play opportunities. Play is, and always has been, the child's medium for learning (Sponseller, 1974). The younger the child the more influential play experiences become in establishing positive base functions socially, emotionally, cognitively and physically. A well planned play environment (Jambor, 1983, 1987; Frost and Klein, 1979; Mason, 1982) can offer unique opportunities that allow for the integration of all areas of development. It provides the foundation essential for the enhancement of positive self-image and attitudes toward personal health and fitness. This, in turn, creates the probability of increased physical participation during the childhood years and into adulthood. It is the position of this paper that children will achieve fitness better through play than through forced
participation in regimented activities. The authors believe that the optimal place to accentuate a sound physical fitness program is within a well designed playground. The playground can offer "natural" fitness development. It is within this setting that the P. E. teacher can be the most influential with all children. It is within this setting that the P. E. teacher becomes an integral Play Leader - an advisor and catalyst for children's development.

**Qualities of a developmental playground**

A good playground is not just a setting for physical encounters, it is one that provides social experiences, conflict allowances, and problem solving and decision making opportunities. It is one that allows children to enter a physical and social play experience at their own need level and participate at their own level of ability. The play environment should allow for, and the play leader should encourage, advancement to higher levels of participation after the child has developed feelings of competence, confidence and security. The properties of the playground should be developed with the intent that they will be acted upon as differently as there are numbers of children that will play on it (Jambor, 1986).

Ingredients that make up the physical nature of a developmental playground for all children also need to be compatible with program and developmental goals and associated with teacher accountability. General characteristics of a developmental playground should include:

1. Space enough to accommodate the number of children using it;
2. Structures that provide for an array of developmental
needs;

3. Linkage of structures and play spaces to provide continuity of movement across and through the environment;

4. Incorporation of standard equipment ideas into multifaceted structures;

5. Play alternatives that offer degrees of challenge and levels of involvement;

6. Safety components - e.g., resilient ground cover (e.g. 8-10 inch depth of Peagravel, shredded bark or sand) to absorb shock if a child falls.

Figure 3 provides examples of activities that can be carried out on a developmental playground that correspond to traditional fitness/exercise activities used by most P. E. teachers. The primary feature of a well planned playground is the interlinking of structures and play components that allow for continual movement and interaction opportunities. Thus, a smooth, natural integration of all physical development components and related activity options is achieved.

Allowing the child freedom to pick and chose his/her own activity and level of entry allows the child to be physical with the environment on his/her own terms. Observing the child at the child's chosen entry point affords the P. E. teacher/play leader the opportunity to decide where to start helping the children in specific skill area's. This procedure would allow the child's
continual physical involvement for the entire P. E. time, as opposed to the traditional standing in line waiting to do a fitness task (e.g. chin-ups). All the physical fitness feats methodically worked through in the traditional P. E. class are evident in children's free play behavior on the playground. The child is engaged in physical fitness training but isn't aware of it. Since the natural medium in which children learn is play, children don't realize that they are systematically improving such fitness areas as muscular strength, cardiovascular endurance, flexibility and spacial orientation.

As children play they become more confident in their abilities to interact with other children and the physical environment. As confidence builds so does the child's self-esteem and, in turn, an increase in participation occurs. It is this positive attitude toward physical involvement that we must strive for and nurture in children. The P. E. teacher is a primary key to how children react to the concept of long-term physical fitness. To continue marching children through methodical and mechanical exercise patterns can be counterproductive to these long term objectives. The P. E. teacher must take a leadership role and weave a master plan that not only provides all children with the skills for better health and fitness but also the motivation and confidence to continue active participation throughout life.

Play is the child's natural way of learning about him/herself as a total being. It is through play that children learn best. The P. E. teacher should take advantage of it.
References


- to assist each child in the development of the attitudes, skills, and knowledge of human movement that will result in a lifetime of participation in physical activity (Nichols, 1986).

- to develop the basic concepts of physical education regarding mechanical efficiency of the human body, physical activity for a healthy organism, acquisition of motor skills, and the development of a healthful mental and social well being (Alabama State Department of Education, 1981).

- to provide children with the opportunity to develop and maintain a level of physical fitness commensurate with their needs (Pangrazi and Hastad, 1986)

Fig. 1 Examples of Goals of Physical Education
<table>
<thead>
<tr>
<th>Code</th>
<th>Physical Component</th>
<th>Fitness Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cardiovascular-Respiratory:</td>
<td>Distance runs; Rope Jumping; Walking; Aerobic maneuvers.</td>
</tr>
<tr>
<td>B</td>
<td>Arm and Shoulder Girdle Strength:</td>
<td>Variations of the Pull-up; Push-ups; Rope Climbing (hands only); Selected animal walks.</td>
</tr>
<tr>
<td>C</td>
<td>Abdominal Strength and Endurance:</td>
<td>Variations of the Sit-up; Bending, Stretching, Twisting; Selected animal walks.</td>
</tr>
<tr>
<td>D</td>
<td>Agility:</td>
<td>Selected Stunts; Zig-Zag-Run.</td>
</tr>
<tr>
<td>E</td>
<td>Leg Power:</td>
<td>Ruining; Vertical Jumping; Standing Long Jump.</td>
</tr>
<tr>
<td>F</td>
<td>Speed:</td>
<td>Foot Races; Running in Place; Selected Leg Exercises.</td>
</tr>
<tr>
<td>G</td>
<td>Coordination:</td>
<td>Locomotor Movements; Hand-eye and foot-eye skill exercises.</td>
</tr>
<tr>
<td>H</td>
<td>Balance:</td>
<td>Movements on Benches or Balance Beams; Selected Balance Stunts.</td>
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</tbody>
</table>

Fig. 2 Examples of Traditional Fitness Activities for Physical Development Components (Pangrazi and Hastad, 1986)
<table>
<thead>
<tr>
<th>Physical Component Code</th>
<th>Playground Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, D, E, F, G, H</td>
<td>Walking or Running on Alternate textures, widths and heights (e.g. tires, beams, utility poles, thick rope, fire hose)</td>
</tr>
<tr>
<td>A, E</td>
<td>Running in dense ground cover (e.g. pea gravel, shredded bark, sand)</td>
</tr>
<tr>
<td>A, B, C, G</td>
<td>Climbing vertical and angular ropes, poles and nets (rope; tire)</td>
</tr>
<tr>
<td>A, B, C, D, G, H</td>
<td>Swinging on varying length vertical ropes; propelling from and landing on given points of reference (e.g. platforms, tires, beams, horizontal ropes)</td>
</tr>
<tr>
<td>A, D, E, G, H</td>
<td>Jumping from various heights (e.g. beams, platforms, large/wide horizontal equipment tires, horizontal and angular ropes)</td>
</tr>
<tr>
<td>A, B, C, G, H</td>
<td>Hand-over-hand movement (e.g. overhead rope, bars and rings)</td>
</tr>
<tr>
<td>H</td>
<td>Moving horizontal beam</td>
</tr>
<tr>
<td>A, B, C, D, E, F, G, H</td>
<td>Spontaneous game movement through an interlinked play environment (e.g. &quot;follow-the-leader&quot;, &quot;tag&quot;, various stunts)</td>
</tr>
</tbody>
</table>

Fig. 3 Playground activity alternatives related to physical development components from figure 2