



Teaching Appropriate Criterion in Fundamental Motor Skills

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Talking Points

- Importance/benefits of teaching fundamental motor skills
- Our teaching experience in our local preschool
- The need for preschool physical education
- Implementing a perceptual motor program
- Criterion in teaching locomotor & manipulative skills
- Assessments

The Importance of Fundamental Motor Skills

- They are building blocks for more complex and sophisticated skills needed later in life (Gabbard & Rodriguez, 2008; Seefeldt, 1980).
- In essence, these are basic skills the students need to learn at a young age in order to perform specialized movement skills necessary for sport and life (Gallahue, Ozmun, & Goodway, 2012).

Benefits (Physical & Academic)

Physical Benefits

- Allows children to learn to move in space (Haywood & Getchell, 2005)
- Achieve greater movement coordination (Stodden et. al, 2008)
- Increase hand-eye coordination & object tracking (Grissmer, Grim, Aiyer, Nurrah, & Steele, 2010).

Academic Benefits

Growth in basic fundamental motor skills..

- Supports brain development (Willingham, 1998).
- School readiness and academic function (Willingham, 1998).
- Assists in language development, critical thinking, and basic reading/writing (Jones & Greenough, 1996; Kelso & Zanone, 2002).

Preschool

- Not mandated or considered part of elementary school curriculum
- Most public school systems do not have preschool
- Therefore, most preschool aged children do not get organized physical education

Troy Faculty & Students to the Rescue

- Faculty & students in the Kinesiology and Health Promotion Dept.
- Created a long standing agreement with local Superintendent/Principal
- Implemented a physical education program for the local preschool
- 3 days a week for 50 minutes a day

Organization/Set up

- Began Spring 2012
- 2 faculty, 1 grad student, and 20 undergraduate students taking motor development and/or Elementary PE methods class
- Classes were coordinated around the everyone's schedules
- One multi purpose room and a large outdoor space
- Average of 30 preschool students total

Robert Bentley

Governor of Alabama

Interview with AL.com

- Re-election platform is pushing for state government funded preschool programming. If passed..
- This would make Preschool part of the elementary school curriculum.
- PE would be a part of that curriculum.



Will this be passed in Alabama?

If so, could this be a national trend?

-time will tell

What was taught?

Perceptual Motor Program

Perceptual motor programs (PMP) develop:

- Gross and fine motor skills.
- Balance
- Spatial Awareness
- Body and directional awareness (proprioception)
- Bilateral, unilateral, & cross lateral movements

What does that mean?

Teaching locomotor & manipulative skills while incorporating cognitive concepts:

- Colors
- Shapes
- Numbers
- Letters (Upper and Lower case)
- Picture Recognition

* K-2nd collaboration with classroom teachers for age appropriate content.

Locomotor Skills

Teaching sequence = simple to complex

- Running
- Jumping
- Hopping
- Galloping
- Skipping
- Sliding
- Leaping

Manipulative Skills

Teaching sequence = simple to complex

- Throwing
- Catching
- Rolling
- Kicking
- Striking
- Dribbling

Criterion for Fundamental Motor Skills

TGMD-2

- Catching
 - Hands in front of body, elbows flexed (preparation phase)
 - Arms extend while reaching for ball
 - Ball is caught with hands only
- Overhand Throwing
 - Wind up initiated with downward movement of hand and arm
 - Rotates hips and shoulders to point non throwing side to target
 - Weight transferred by stepping with foot opposite to throwing hand
 - Follow through beyond ball release diagonal across body
- Horizontal Jumping
 - Flexion of both knees with arms extended behind body (preparation phase)
 - Arms extend forcefully forward and upward reaching full extension above head
 - Take off and lands on both feet simultaneously
 - Arms are thrust downward during landing

Criterion for Fundamental Motor Skills

Movement ABC's 2

- Catching
 - 10 consecutive throws to child
 - Count number of times the beanbag is caught
- Overhand Throwing
 - 10 consecutive to target on mat
 - Count number of times the beanbag lands on the target
- Horizontal Jumping
 - Consecutively jumps on 5 mats down and back
 - Must complete without landing off mats

Teaching Criterion Using a PMP

- Establish appropriate criterion to use
- Provide ample practice time.
- Age appropriate Lessons
- Short activities taught in stations (task style)

Teaching Methods and Activity Ideas

- Start simple progress to complex
- Bilateral- uses one side of the brain
- Unilateral-activity that isolates one side of the brain to help develop the other
- Cross Lateral- both sides of the brain are used to perform a skill

Lesson 1: Bilateral Activity

- **Warm-up**

- Opposite hand to opposite foot behind back (5 times)

- Opposite hand to opposite foot in front of body (5 times)

- Elbow to knee (5 times)

- Standing windmills (5 times)

- Touch called body part with right hand and another one cross body with left hand. Go over senses with body parts. (3 times)

- Skip to cones, Leap over cones, Run back and forth to cones (2 times)

- **Main Activities**

- Gross motor Uno attack

- Speed Ladder course

- **Bilateral Activities**

- Jump with both feet on a hopscotch mat from square to square, bouncing two times in each square. On landing, say the color and number written on the mat square.

Lesson 2: Unilateral Activity

- **Warm-up**

-Opposite hand to opposite foot behind back (5 times)

-Opposite hand to opposite foot in front of body (5 times)

-Elbow to knee (5 times)

-Standing windmills (5 times)

-Touch called body part with right hand and another one cross body with left hand. Go over senses with body parts. (3 times)

-Skip to cones, Leap over cones, Run back and forth to cones (2 times)

- **Main activities**

Scooter "Hungry Hippos"

Crab Soccer

- **Unilateral Activities**

Place 5 cones about 3 feet apart. Children will lie on their stomach on a scooter board and push with both hands and feet through the sequence of cones. Put different letters, numbers and shapes on cones and let children say what is placed on the cone. Once through all cones, make them go through backwards, Place other items on the opposite sides of cones.

Lesson 3: Cross Lateral Activity

- **Warm-up**

- Opposite hand to opposite foot behind back (5 times)

- Opposite hand to opposite foot in front of body (5 times)

- Elbow to knee (5 times)

- Standing windmills (5 times)

- Touch called body part with right hand and another one cross body with left hand. Go over senses with body parts. (3 times)

- Skip to cones, Leap over cones, Run back and forth to cones (2 times)

- **Main activities**

- Sight word Twister

- Number Hockey

- **Cross lateral Activities**

- Use a hopscotch mat to perform activity. Walk beside the mat and bounce the ball into each square, alternate using right and left to right hand every other square. Oput various academic items in the square and have children say what is on card.

How to know if your PMP is effective?

- Informal or formal assessment to track student progress.
- Pre assessment and post assessment is best.
- Informal can be observation, survey of parents, students and teachers.
- Formal assessment can be any validated motor assessment.

What to look for...

Motor Skill	Initial Stage	Proficient Stage
Throwing/ Aiming	Vertical Windup "Chop" Throw Feet Stationary No Trunk or upper body rotation	Downward arc wind up Contralateral step Segmented Body Rotation Arm-Leg follow-through
Catching	Delayed arm action No arm "prep" Catches ball with chest Feet stationary	Prep arm action Catch with hands only Whole body moves through space
Jumping	Arms remain by side Jump is mostly vertical Legs do not extend	Complete arm and leg extension in take-off Take off at 45 degree angle Thighs parallel to surface when feet touch ground

Informal Assessments

- Skill progression checklist
- Skill observations
- Survey parents, students and teachers

Formal Assessments

Motor and Cognitive Assessments

- Must have guardian consent to implement
- Validated assessment

Test of Gross Motor Development 2nd Edition (TGMD) (Ulrich, 2000)

- Assesses 6 locomotor and 6 manipulative (object control) skills
- Focuses on biomechanically correct skill criterion

Uses of Assessment:

- Identification and Screening
- Instructional Programming
- Assessment of Progress
- Program Evaluation
- Research

Movement Assessment Battery Children 2nd Edition (Henderson, Sugden, Barnett, 2007)

3 components

- Manual Dexterity- threading beads, depositing coins, tracing
- Ball Skills- aiming and catching
- Static and dynamic balance- walking a line with raised heels, balancing on dominate and non dominate feet, jumping consecutively

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