Barrier- Poverty

- Issues within PE?

- Strong research to suggest that children who grow up in areas of socio-economic deprivation are developmentally delayed in their motor development

- Why are they delayed?





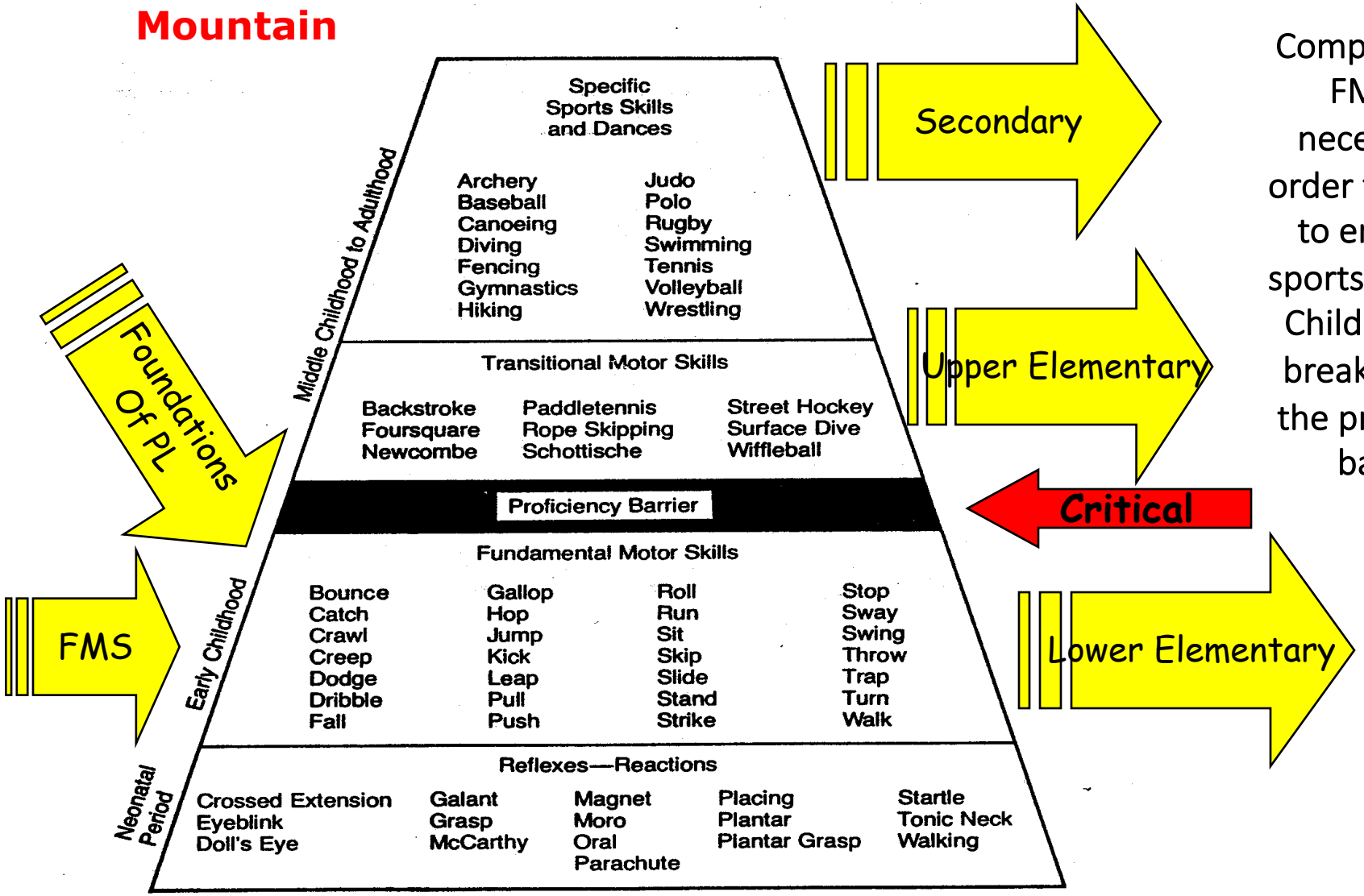




Motor development

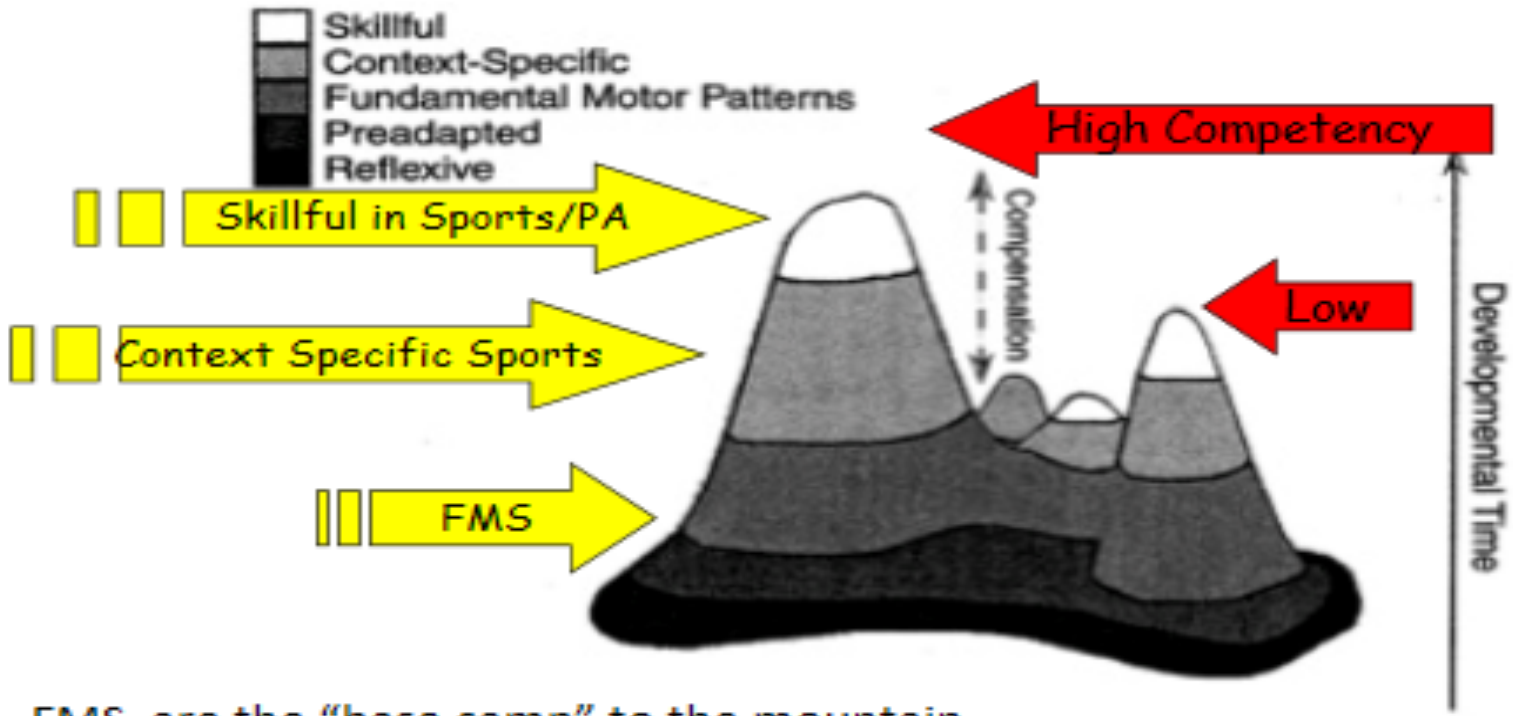
Figure 1. Progression of Motor Proficiency Skill Levels (from Seefeldt, 1980, p.317)

Climbing the Motor Development Mountain



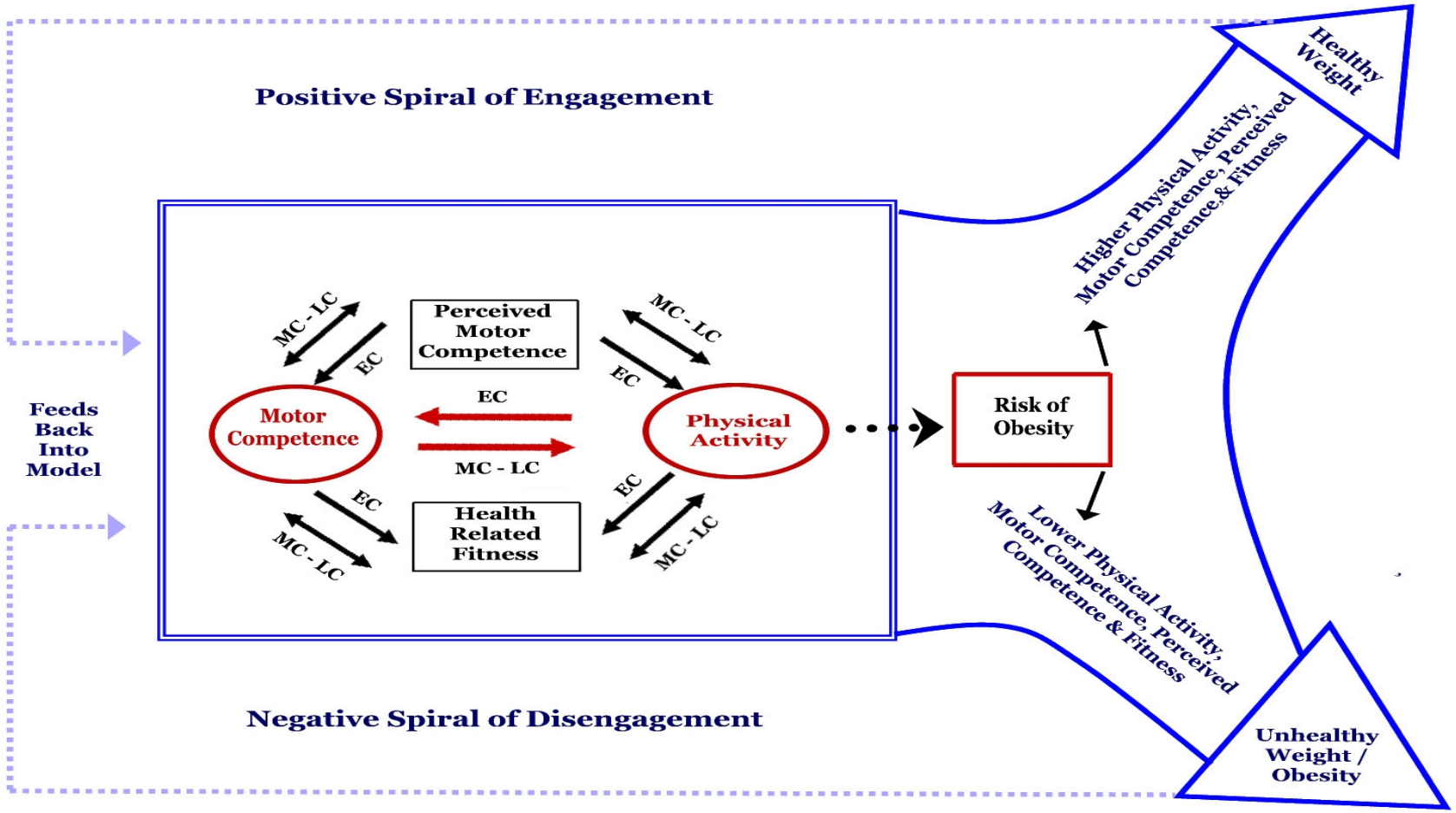
Competence in FMS are necessary in order to be able to engage in sports & games. Children must break through the proficiency barrier.

Mountain of Motor Development



FMS are the "base camp" to the mountain of motor development. Each child needs to develop MC to travel up the mountain to skillfulness.

Clark & Metcalfe (2003)

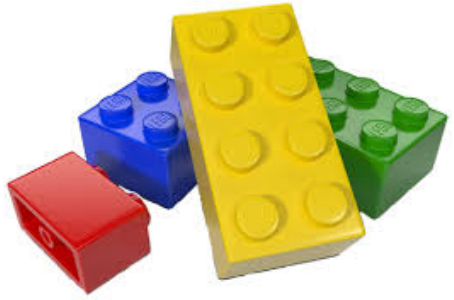


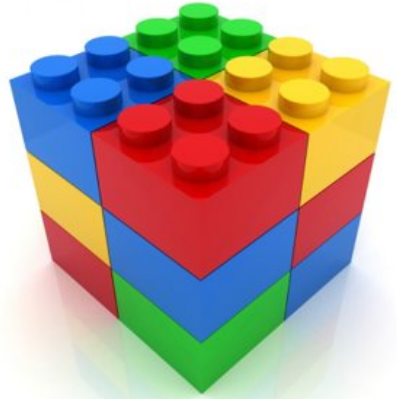
Stodden et al., (2008)

Fundamental Movement Skills (FMS)



FMS are the building blocks to more advanced movement skills.









Young children are moving less



- Screen time- TV, computer games, mobile phones/ ipads
- Increased time in buggies/ baby gadgets
- A lack of free play
- Busy working parents
- Lack of free play
- Coffee shop culture













This has serious implications for child development

Sensorimotor integration









Evidence from neuroscience …..

‘Movement skills in childhood are inextricably linked to core aspects of development including social, cognitive and psychological…. Language emerges as children physically interact with their surroundings…’

Studies show movement skills are linked with early language and literacy, emotional regulation, social behaviour and academic self perceptions.

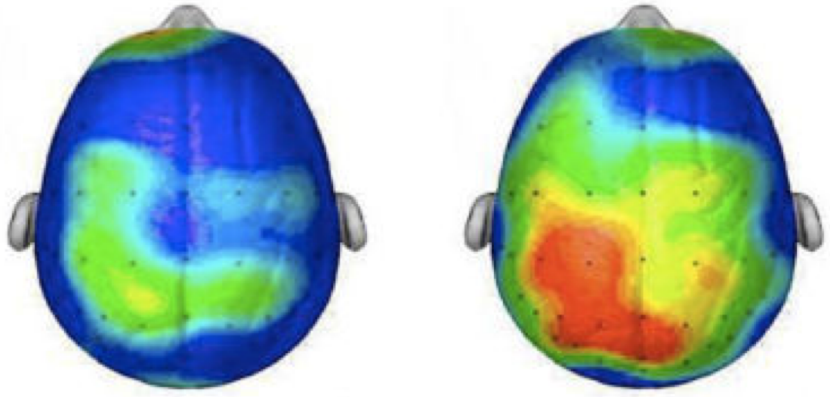
Diamond,A. (2000; 2015); Iverson, J (2010); Van der Fels et al., (2015); Bedard et al., (2017).

Brain development

- Children are more likely to be delayed in movement coordination if their early sensory-motor development has been compromised
- Movement is the most important function of the brain- a key stimulus to brain development is physical activity
- Critical period for sensory integration is between the ages of 3 and 7 (Foundation Phase)

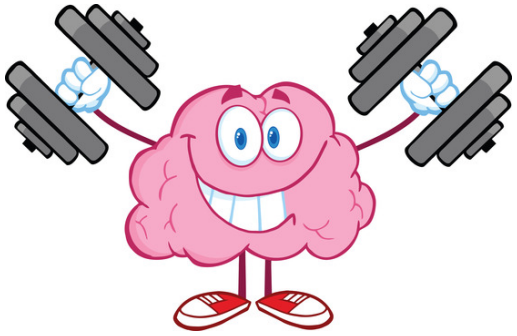


Composite of 20 student brains taking the same test



After sitting quietly

After 20 minute walk





- Children do not just ‘magically’ learn how to perform motor skills, they must be taught and reinforced.
- Development of ‘motor competence’ in the early childhood years is critical
- Without FMS as a base for physical competence, children are unlikely to develop the motivation and confidence that will encourage them to engage in physical activity
- Links between early physical competence and engagement in physical activity in later life

Who else may have difficulty with motor development?

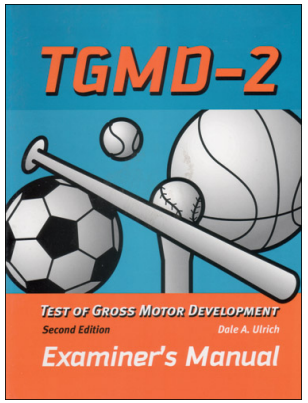
What happens in PE for children with poor skills/ motor development?

STEP

How is this addressed?

- Assessment- MABC, TGMD
- Motor skills programmes i.e Smart Moves, SKIP
- Children who receive the SKIP curriculum remediate their motor skill delays (Goodway & Branta, 2003; Goodway, Crowe, & Ward, 2003; Robinson & Goodway, 2009).















Project SKIP

(Successful Kinaesthetic Instruction for Pre-schoolers)

- Developed by Professor Jackie Goodway, Ohio State University over 20 years ago.
- Aimed at disadvantaged young children to remediate motor delay
- Develops motor competence in FMS
- Focuses on FMS, MVPA and movement knowledge
- 2 x 45 minute sessions per week

SKIP-Cymru©

- Advocacy with leadership
- Training day for Foundation Phase staff
- Mentoring
- Parental engagement sessions and parent bags
- SKIP-Cymru© developed to fit a playful pedagogy
- Not resource driven
- 2 x 45 minute sessions per week

ATHROFA LLYTHRENNEDD CORFFOROL CYMRU
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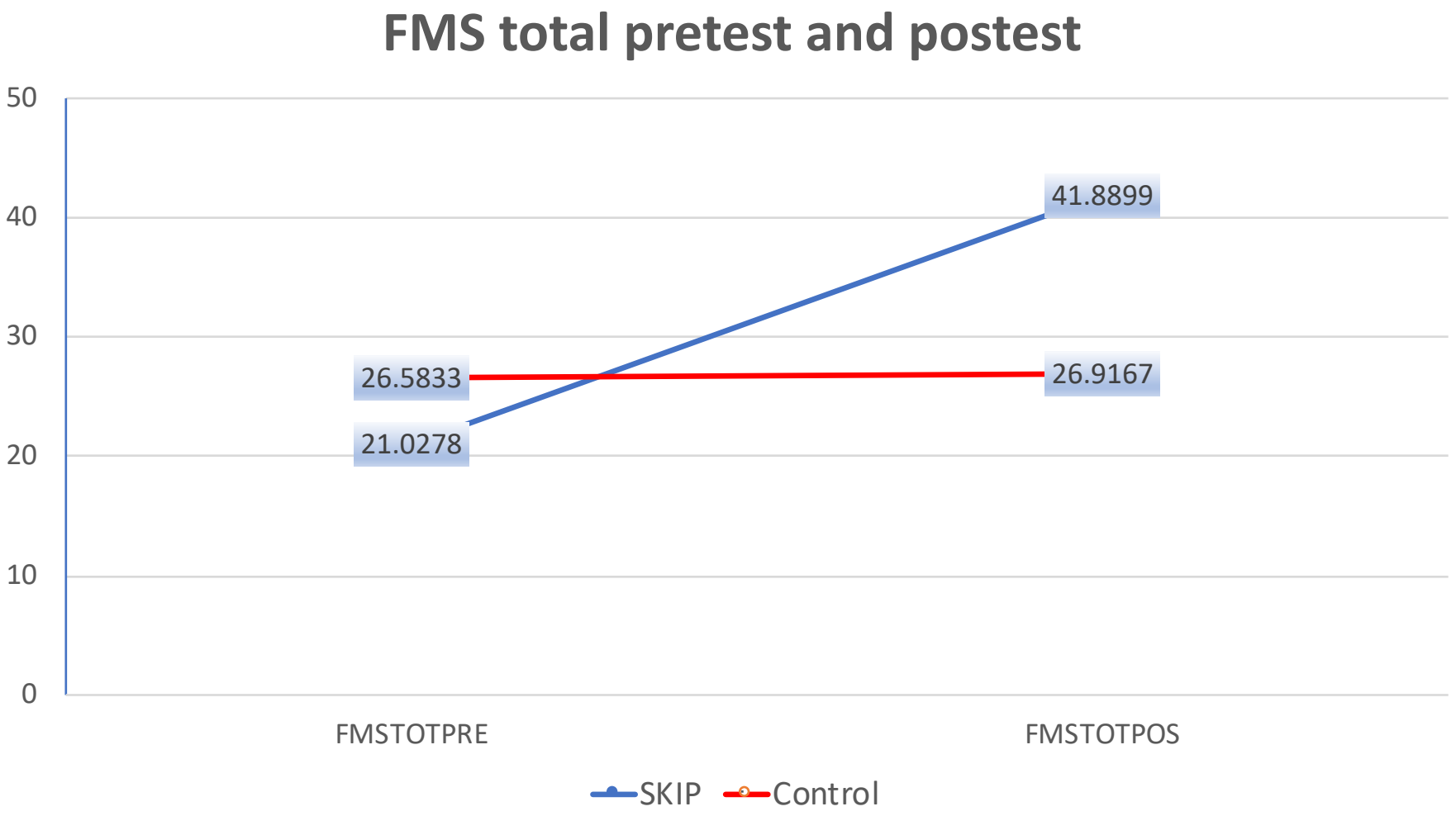




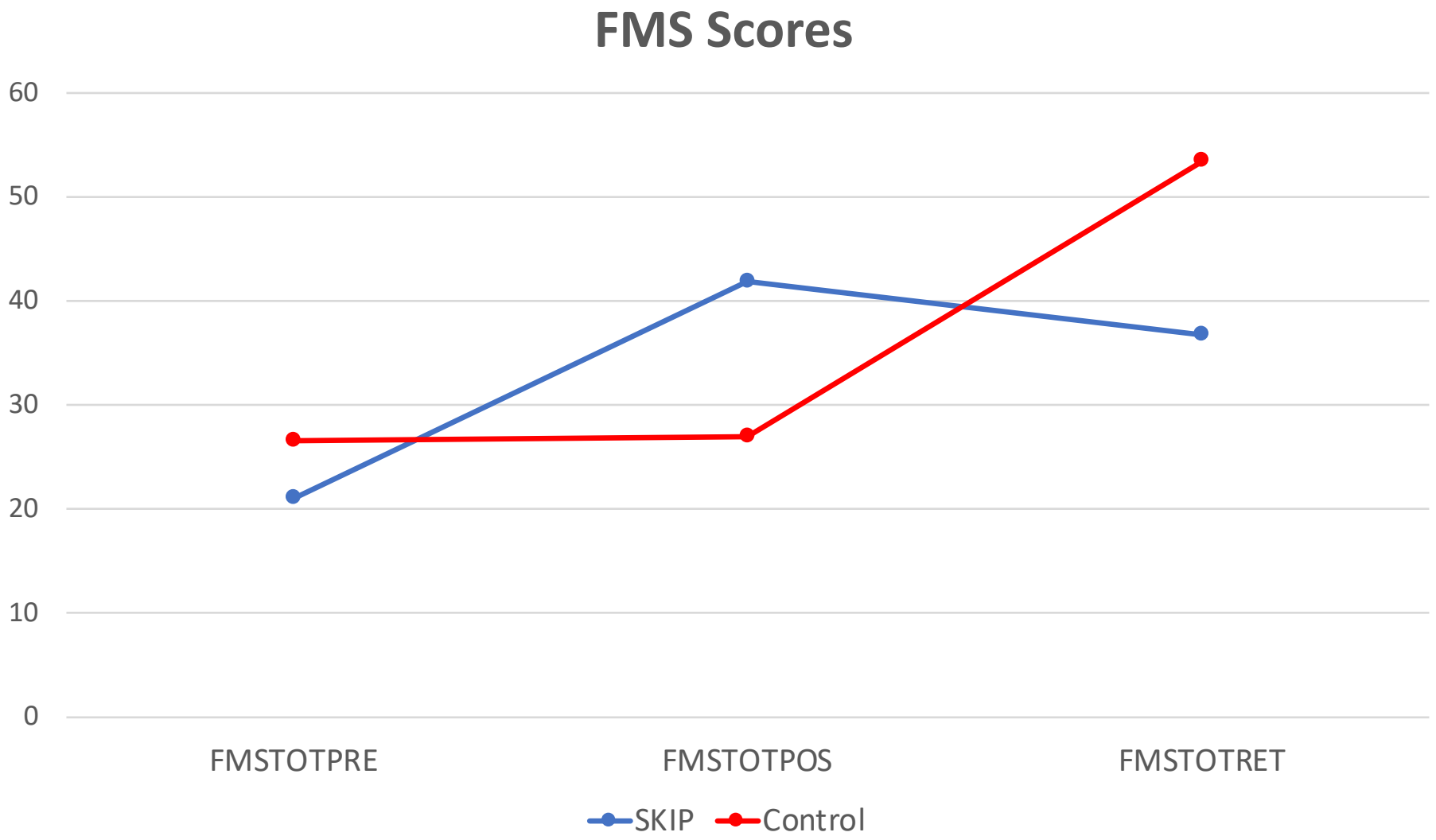




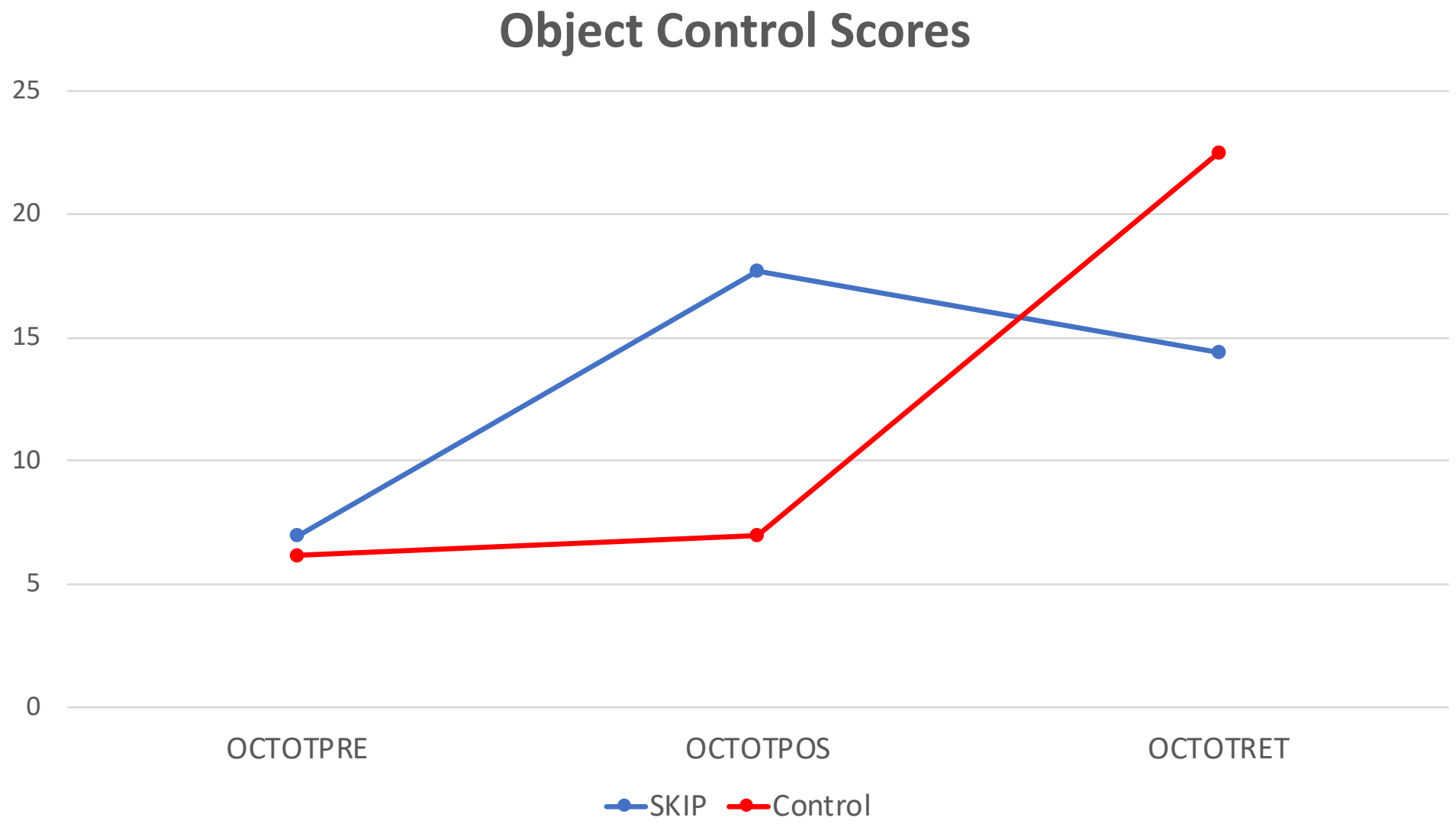




MA data, A John 2016

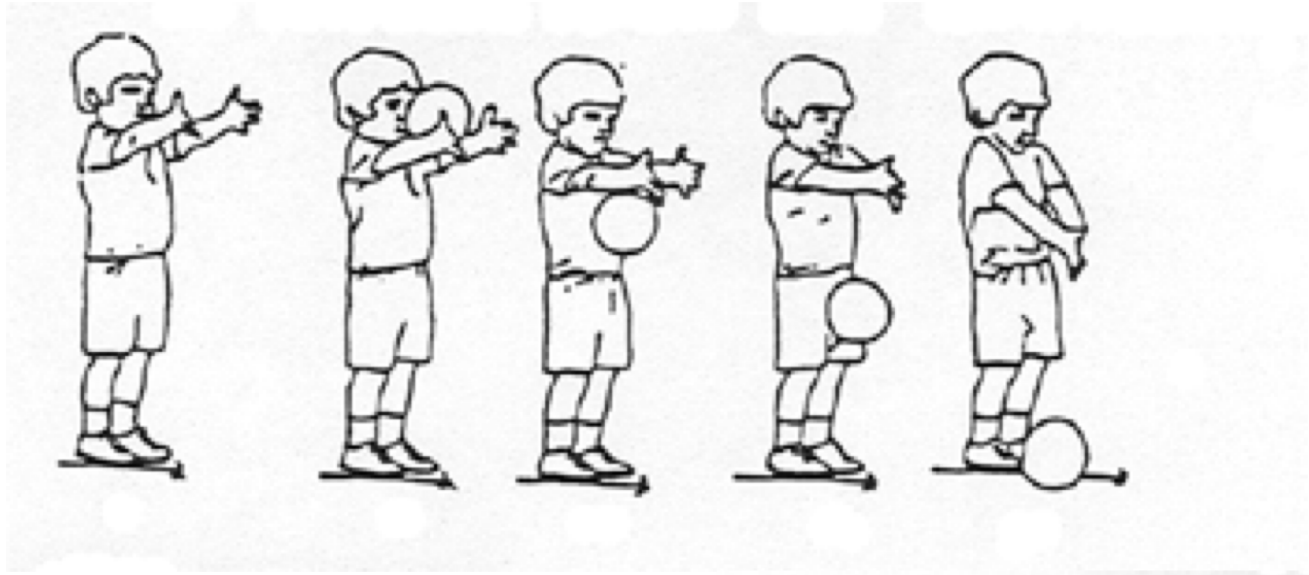


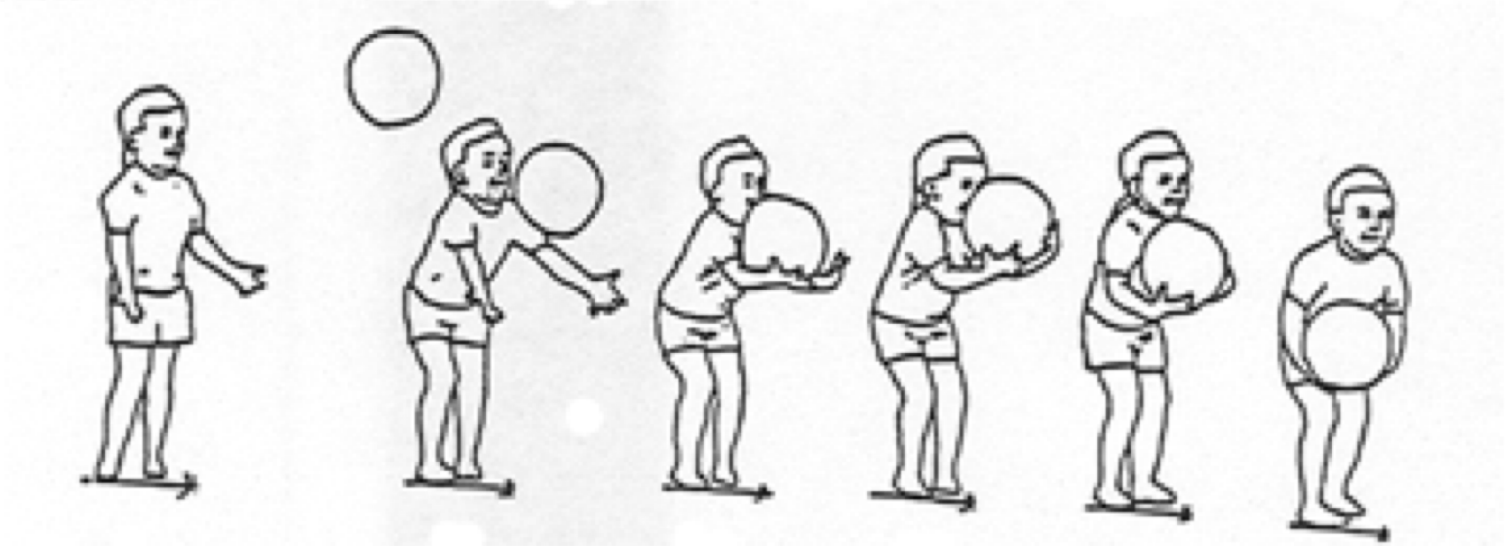
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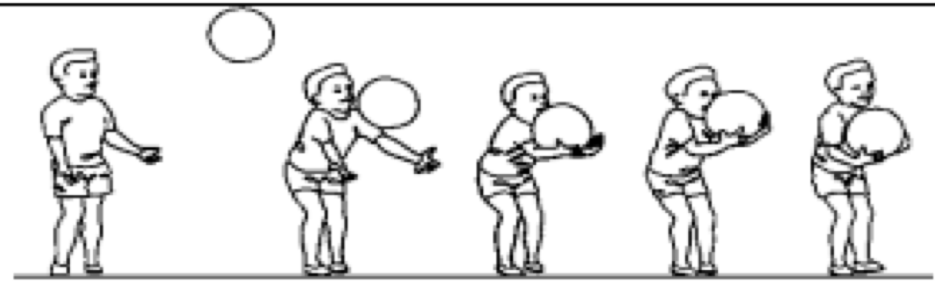


MA data, A John 2016

Developmental stages of motor development





Initial Stage	**Stage 1** ***Delayed Reaction*** ▪ Delayed arm action ▪ Arms straight in front until ball contact, then scooping action to chest ▪ Feet stationary Boys: 24 – 40 mo. Girls: 22 – 40 mo.	
Emerging Stages	**Stage 2** ***Hugging*** ▪ Arms encircle ball as it approaches ▪ Ball is "hugged" to chest ▪ Feet are stationary or may take one step Boys: 40 – 48 mo. Girls: 40 – 48 mo.	
	Stage 3 ***Scooping*** ▪ "To chest" catch ▪ Arms "scoop" under ball to trap it to chest ▪ Single step may be used to approach the ball Boys: 48 – 72 mo. Girls: 48 – 60 mo.	
	Stage 4 ***Hand Catch*** ▪ Catch with hands only ▪ Feet stationary or limited to one step Boys: 72 – 82 mo. Girls: 60 – 78 mo.	
Proficient Stage	**Stage 5** ***Move to Ball*** ▪ Catch with hands only ▪ Whole body moves through space Boys: > 82 mo. Girls: > 78 mo.	