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Play is FUNdamental: Developmental Aspects of Play as Applied to Children and Individuals with Language and Developmental Disabilities

Lisa R. Audet, PhD, CCC-SLP

Moderated by:
Amy Natho, MS, CCC-SLP, CEU Administrator, SpeechPathology.com

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Play is FUNdamental: Developmental Aspects of Play as Applied to Children and Individuals with Language and Developmental Disabilities

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Lisa Audet Bio

- Dr. Lisa Audet has been a practicing SLP for 35 years. She has been on faculty in Speech Pathology & Audiology at Kent State University since 2000. She specializes in early childhood language development and disorders, low incidence disorders, autism, augmentative communication, and assistive technology. Dr. Audet has published and presented at the national and international level.

- Presenter Disclosure: Financial: Lisa Audet received an honorarium for this presentation. She directs the Autism Initiative for Research Education and Outreach at Kent State University and owns a private SLP practice. Nonfinancial: No relevant relationships to disclose.

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Learning Outcomes

- List developmental processes related to engagement in play behavior.
- Describe language/cognitive stages of play.
- Explain the connection between observable play behaviors and corresponding levels of intentional communication and motor development.

Agenda

- Introduction
- Physical Motor Developmental Principles
- Stages of Intentionality
- Stages of Play: Sensory Motor to Pretend
- Application to Assessment
- Questions

Introduction

- My journey as an SLP and realizing the importance of play
- ASIA
- Asia was a 21year-old with a developmental disability, considered to be non-verbal.
- During a group session, with small sand boxes containing fill and dump items in them.
- Asia ignored the items and dug her hands into the sand.
- Two of her care providers sat in the observation room with headsets to hear the session.
- *As Asia PLAYED in the sand, squeezing it, watching it fall, she verbalized. My eyes opened wide and I smiled at her and repeated her actions. I thought I heard her say something but couldn't be sure since she was after all "non-verbal."*
- It wasn't until her care providers met me after the session. They were very excited and said, **"Did you hear her say, I LOVE THIS SAND?"** I had!
- That moment confirmed for me that play needs to be an essential component of the therapy SLPs provide, regardless of the chronological age of our clients.

Why do SLPs need to know about motor development?

- Stages of motor development align with speech, language, swallowing and communication ability
- Observation of motor skills provide useful diagnostic and assessment information
- An individual's ability to maneuver through space and manipulate objects is intricately aligned with play

Why is this content important? (continued)

- Deficits or delays in motor skill development may appear as maladaptive behaviors in children who are attempting to engage with materials but at their developmental v. age level.
- SLP MUST select therapy materials that the client can independently use in order to address language targets.
- As motor demands increase, speech, language, communication, swallowing ability decreases. SLPs want to balance these aspects.
- As IPP professionals, SLPs will work with OT and PT. It is important to have a foundational understanding of frameworks OTs and PTs use in their practice.

Physical Motor Developmental Principles

- Beginning our journey of understanding and integrating play into the work of the SLP…three key concepts to consider regardless of age are….
- Concepts that changed my thinking:
- Thank you PTs and OTs
  - Cephalocaudal
  - Proximal Distal
  - Stability to Mobility

Cephalocaudal Development

All Human Beings…

- Develop from the top down: Head to toe
- Humans learn to control movement from their head,
- then their trunk and arms,
- and then their hips and legs
- This is true for individuals with disabilities as well

Cephalocaudal Development: Example

- Juanita is a 17 year old who has CP and is not ambulatory. She uses a wheelchair but is not able to activate it herself.
- Juanita tends to drop her head. It takes a lot of energy for her to maintain a posture with her head and shoulders aligned.
- It is not surprising that Juanita is fed via a peg.
- Juanita is reluctant to use a device which is not surprising either given that she can not rely on a head switch for scanning.
- However, Juanita wants to be vocal. She is motivated to engage in exercises to strengthen her core and strengthen her neck so that she can call and develop different vocalizations.

Cephalocaudal Development

- Billy is 7 years old. He had a stroke at 6 weeks following heart surgery. As a result he had cerebral atrophy.
- Billy is mobile but he walks with a wide base of support and he is not able to cross midline when working with his hands. His fine motor skills are very delayed.
- But Billy wants to be social. He runs to approach other children. They are afraid of him and interpret his awkward gait and retracted shoulders and outstretched arms as aggressive.
- Consequently, Billy gets in trouble a lot for being aggressive. In reality his behavior is a function of his developmental delay.

Proximal Distal Development

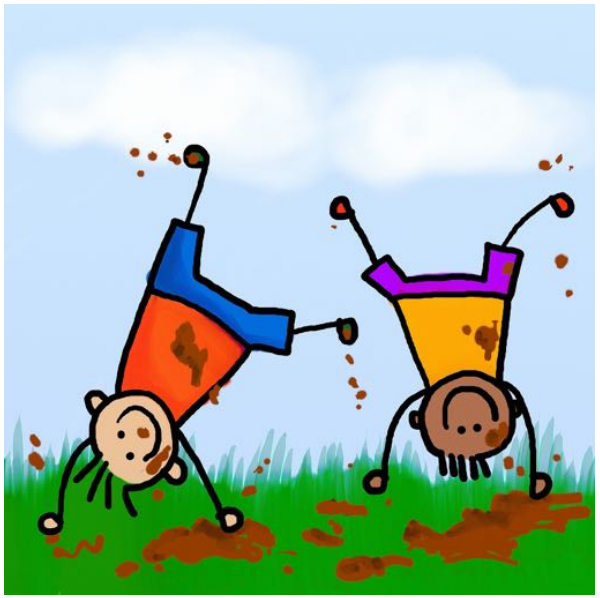
- All human beings obtain control of movements closest to midline and then extend that control to extremities.
- As a result humans use gross motor movements before fine motor movements.
- This is particularly noted in how humans use their shoulders, arms and hand.
- Consider a child learning to draw
  - Large Motor Movements,
  - Movements from the Elbow
  - Movements from the Wrist
  - Fine motor Finger movements.

Proximal Distal Development: Example

- Stephen is 7 years old. He is non-verbal and diagnosed with CP and autism. There is a problem….Stephen throws and dumps everything!
- Behavioral consultants recommend putting gloves on Stephen to stop him from throwing and dumping.
- This leads to a second problem: Stephen's fine motor skills are very poor. Throwing and dumping are essentially gross motor activities. Give Stephen markers and he will roll them on a table using gross motor skills.
- Stephen's 'behavior' is not a maladaptive one. Stephen is trying to engage with the world the best he can. He needs OT and PT to develop his skills.
- The SLP can integrate strategies from OT and PT into the session. His AAC and receptive language goals can align with his motor skill development.

Stability to Mobility

- A structure must be stable before it is mobile
- Head Stability to Movement: Head turning and oral motor movements
- Torso Stability to Movement: Crossing Midline
- Standing Stability to Movement: Kicking, hopping etc.



Stability to Mobility: Example

- Max is 4 years old and has Down Syndrome. When Max sits on the floor he collapses his torso and curves his back. He sits with a wide base of support. When in this position, Max's attention to task is poor and his tongue is extended.
- The therapist moves the toy from the floor to a child's chair so it is at eye level. She also supports him to rotate his hips and lower back and encourages crossed legged sitting. She makes this modifications without providing directives to Max.
- Max immediately has a better base of support, his tongue retracts and he successfully engages with the toy.
- Max will return to his earlier posture when he fatigues. At these times different activities are presented that reduce the demand.

Stability to Mobility Example

- Ezra is 8 years old. He has autism and minimal verbal skills.
- On the playground Ezra will walk around the periphery and not engage with others.
- A plan is created that Ezra needs to select a playground activity and DO IT.
- On a particular day, Ezra selects the slide. His paraprofessional is pleased and she is told that Ezra must do the activity he selects.
- As they approach the slide Ezra runs off. His paraprofessional begins to chase him around the playground to make him DO the slide.

Ezra Continued

- Ezra is able to run. However, Ezra does not have the stability to ascend a ladder. The team who created the plan failed to consider the motor skills needed for the various items on the playground.
- The SLP asks about the option of watching children use the slide or whatever equipment Ezra selects. She also asks about the option of changing his mind. The SLP is told that changing his mind is not an option.
- As a result, the paraprofessional and Ezra played chase throughout recess. Understanding Ezra's motor development would have enhanced meaningful experiences on the playground in many ways.

Application to Play

- Lessons Learned:
- Integrating play into speech language therapy requires us to integrate knowledge of motor development
- Watching an individual's motor skills helps us to:
  - Better understand how the person interacts with the world.
  - Know which materials to select when engaged in therapeutic activities.
  - Know how to support an individual so that targets can be obtained.
  - Better understand an individual's behavior. Even those that are initially viewed as maladaptive or aberrant.

Stages of Intentionality (E. Bates)

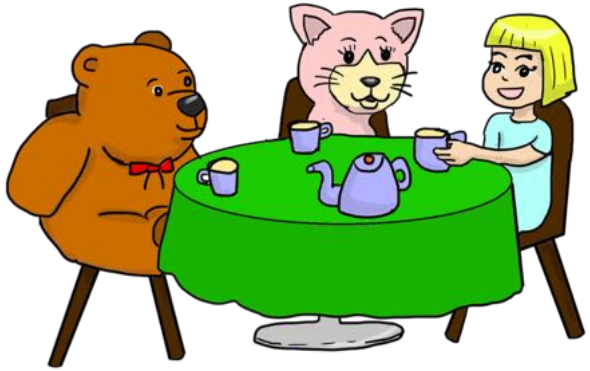
- Perlocutionary: No Intent; No Language (Symbol)
- Illocutionary: Intentional; No Language (gestures develop)
  - Gestural Complex: Pointing, Showing, Giving, Joint Attention
- Locutionary: Intentional with Language

What is Play

- Play is an enjoyable, self directed activity
- It is inherent to all human beings
- There are different aspects of play
- Human beings move from early exploratory play to pretend play
- We have to accept play at the stage where the child is functioning in order to support and teach. This creates meaningful interactions.

Stages of Play: Sensory Motor to Pretend

- Gestural development and symbol use is linked to the ability to engage in fine motor activities and understand that objects represent other items.
- Think about it….if you can not turn an object, isolate finger to eat finger foods you also may not be able to isolate a point.
- No point….adults are not directed to what the child is interested in. As a result, adults do not label that which the child is interested in. Consequently, limited semantic development.
- Children at a gross motor stage of development DO NOT SIT.
- Children at a fine motor stage of development can sit and have visual-motor activities (eyes work with hand, shared attention).



Application to Assessment

- Observe how the individual
  - sits in relationship to the space;
  - moves across space;
  - uses his hand to control or explore objects in his environment
- Observe if
  - the individual combines sensory systems to examine the environment, engage and solve problems
- Observe how
  - many objects the individual engages with at a time and how the individual uses the object
- CAUTION:
  - DO NOT label actions as aberrant or inappropriate
  - Do not jump in to stabilize an object or solve a motor problem for a child until you know more
- Consider the developmental aspects of the behavior
- And how these behaviors fit in with the bigger picture

References

- Adolph, K. E., & Franchak, J. M. (2017). The development of motor behavior. Wiley interdisciplinary reviews. Cognitive science, 8(1-2), 10.1002/wcs.1430. https://doi.org/10.1002/wcs.1430
- Bates, E., Benigni, L., Camaioni, L., et al., (1979). The Emergence of Symbols. NY: Academic Press.
- Battaglia, G., Alesi, M., Tabacchi, G., Palma, A., & Bellafiore, M., (2018). A Non-randomized Pilot Trial The Development of Motor and Pre-literacy Skills by a Physical Education Program in Preschool Children. Frontier Psychology. 9: 2694.
- Capone, N.C., & McGregor, K.K. (2004). Gesture development: A review for clinical and research practices. Journal of Speech, Language and Hearing Research 47; 173-186.
- Gerber, S. (2017). Embracing the Potential of Play for Children on the Autism Spectrum, Topics in Language Disorders: 37(3), 229-240. doi: 10.1097/TLD.0000000000000128
- Hestbaek, L., Andersen, S.T., Skovgaard, T. et al. (2017). Influence of motor skills training on children's development evaluated in the Motor skills in PreSchool (MiPS) study-DK: study protocol for a randomized controlled trial, nested in a cohort study. Trials 18, 400.
- Patterson, J. L., & Westby, C. (1994). The development of play. In W. Haynes & B. Shulman (Eds.), Communication development: Foundations, processes, and clinical applications (pp. 136–163). Englewood Cliffs, NJ: Prentice Hall.
- Westby C.E., (1980). Assessment of cognitive and language abilities through play. Language, Speech & Hearing Services in the Schools; 154-168.
- Escolano-Pérez E, Herrero-Nivela ML and Losada JL (2020) Association Between Preschoolers' Specific Fine (But Not Gross) Motor Skills and Later Academic Competencies: Educational Implications. Frontier Psychology. 11:1044.

Thank You

- Let's Play!!
- Questions