Differentiating Instruction for Inclusive Learning

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Lecture outcomes

- Review of closed and open motor skill classification
- Introduction to GLSP classification
- Engage in discussion on initial instructional strategies to introduce skill learning
- Engage in discussion to differentiate instruction to accommodate differences in learning
Closed/Open Classification

- Closed skill
  - Performer initiates the action
  - Environmental context stays the same from one attempt to the next

- Open skill
  - Performer must act according to the actions of the skill
  - Performer must act according to the actions of the changing environment
Training Grandpa Ernie

- Develop a closed skill practice for Grandpa Ernie walking with his walker
- Develop an open skill practice for Grandpa Ernie walking with his walker
Gentile’s taxonomy

- What does the learner do?
  - Stationary or moving?
  - Manipulate an object?

- What is going on in the environmental context?
  - Is the ‘playing field’ stable?
  - Is the ‘playing field’ unpredictable?
PRACTICAL APPLICATION OF GENTILE’S MODEL

Closed Skill       Stationary          Intertrial
                   1                       2
           No intertrial

Open Skill       In Motion          Intertrial
                  3                       4

In rehab or teaching, we start with 1 and progress to 4.
Variability in motor skill performance

- Children, athletes, and clients have varied levels of skill.
- Individuals also may show varied levels of proficiency with different tasks.
- We observe the levels of proficiency and then determine the appropriate task instruction.
Generic Levels of Skill Proficiency (GLSP)

- A classification system that helps educators/coaches/clinicians describe and understand the range of motor abilities more accurately
  - Precontrol
  - Control
  - Utilization
  - Proficiency

- These levels address general qualities about a level of proficiency with a specific skill
  - Adapted from Graham, Holt/Hale, & Parker (2013)
GLSP

- Instructors/coaches/clinicians should provide appropriate tasks and activities for the skill levels of the individuals in their care

- Age is not an accurate predictor of ability for any particular skill
Precontrol Level

• “oops” movements
  • Unable to repeat movements in succession; one attempt looks nothing like another
  • Uses extraneous movements that are unnecessary for efficient performance
  • Seems awkward and doesn’t come close to performing the skill correctly
• Controlled by the equipment rather than controlling the equipment
  • Often these are early childhood; up to age 6
Precontrol
Instructional strategies

- Exploratory movement
- Simple “closed” motor skill tasks
  - Performer and object stays stationary
- Not necessarily much performance feedback
Control level

- Intense concentration
  - Appears to be more intentional
  - Repetitions are more consistent
  - Successful performance is more frequent
Control
Instructional Strategies

- Initially consistent repetitions in closed environment
- Begin to add variation in the environment
  - Vary the practice attempts
  - Add a challenge (time limit, successful attempts in a row, etc)
- Work to refine the movement
  - Specific feedback on one element of the skill
    - Avoid overloading with too much information
    - “flat paddle”, “stiff wrist”
Utilization level

- Skill can be combined with other skills
- Movement is more automatic, can be performed successfully with concentration
- Movement can be used in predictable situations and often in less unpredictable situations with some level of success
More success!
Instructional Strategies

- Add more variation and unpredictability to environment
  - More people
  - More “game-like”
  - Yet, keep each practice attempt the same
    - Repetition will help to refine the movement

- Continue to provide specific feedback
  - Feedback ‘sandwich’ : glow, grow, glow (something positive, something to improve, something positive)
Proficiency level

- Automatic, dynamic
  - Mover is able to focus on extraneous variables, e.g. an unpredictable object, and still perform well
  - Mover is able to modify performance based on the demands of the situation
Proficiency level
Instructional strategies

- Allow learners to problem-solve
- Allow learners to engage in discovery of learning
- Continue to motivate and provide feedback as needed
Using the GLSP

- Assessing the skill level should occur through observation on numerous occasions.
- As individuals age, there becomes a wider range of skill abilities among those in a cohort group.
- Sometimes the mover will appear to be at a higher level on the GLSP during practice than during ‘game’ situations when the context is unfamiliar and/or unpredictable.
What’s your GLSP?

- Tennis serve?
- Front handspring?
- Back crawl stroke?
- Kendo fumikomi-ashi? (Slide forward and stomp)
- Shooting a basketball from 3 point range?
- Hitting a drive shot in golf?
- Punting a ball?
- Judo osoto gari? (swing leg inside & under opponent for ‘take-down’)
- Hitting a pitched curve ball?
- Kyudo (Japanese archery)?
Using the GLSP

- Why do differences exist within you as an individual?

- Why are there differences within this TSI group?

- How do we (as educators/clinicians/coaches) work with these differences?
What is differentiated instruction?

- Tailoring instruction to meet individual needs
  - We can differentiate the content, the equipment, or the learning environment
- Ongoing assessment makes this a successful approach to instruction
Know your learners
Ways to differentiate instruction

- Teaching by invitation
- Intratask variation
- STTEP: space, task, time, equipment, people
- Change, challenge, choice
Teaching by Invitation

- The instructor invites learners to make decisions about the task to be practiced
  - Equipment: “You may want to continue hitting a foam ball, or you may want to use a shuttlecock.”
  - Distance: “You decide how far away from the goal you want to be when you kick.”
  - Solo, partner or group: “Working alone or with a partner, design a sequence…..”
Intratask Variation

- The instructor varies a task (easier or harder) for an individual or small group based on visual assessment of the skill performance
- “Sandy, you may want to practice dribbling behind your back and between your legs.” (Others are dribbling in self-space)
- “John, you may want to move 10 giant steps away from the soccer goal to kick the ball.”
STTEP

- **Space:**
  - Changing the area size may make the task easier or more difficult

- **Task:**
  - Modifying the task may make it easier or more difficult

- **Time:**
  - Adding a time limit to a challenge may make practice more interesting

- **Equipment:**
  - Modifying the equipment may make the task easier or more difficult

- **People:**
  - Varying the number of people to make a task easier or more difficult
Change, challenge, choice

- Change the task
  - How to modify to meet the learner’s needs?

- Challenge
  - Develop a range of challenges to vary the degree of difficulty to extend the task

- Choice
  - Allow learners to choose a task progression that meets their GLSP level
Other considerations

- Organization of learners for comfort and for challenge
  - Independent
  - Pairs
  - Small groups

- Teaching styles
  - Allowing students to make more decisions
    - Less direct styles = more student choice, thinking, learning

- Learning styles
  - Knowing how students prefer to process information

- Use of questions
  - Check for understanding or push to explore content in more depth
Summary

- In order to provide appropriate tasks for a group of learners with a wide range of skill levels, we must recognize the variation in ability and match tasks to the abilities of all, so they will remain interested, continue practicing, and learn.

- Adults may be at the precontrol level if they have had little opportunity to practice.
Questions?

- Thank you for allowing me to spend the week with you!!