Development of a Analytical Rubric
What is a Rubric?

• Qualitative tool used to measure motor skill performance
• Guidelines for judging a performance.
• Criteria used to assess client’s or student’s performance
What must one do to create an analytical rubric?

1. Have clear developmental criteria about the performance a motor or sport skill.

2. Put down in writing the criteria by which the performance can be judged.

(Writing a rubrics is by far the most difficult part of creating this assessment)
Analytic Rubric

• The movement specialist must make a judgment to the degree of quality for the criteria.
  – Evaluates degree of maturity
  – Each criteria is evaluated separately
Analytic Rubrics

- Scorer gives a numerical score for each criteria evaluated.
- Criteria are evaluated for quality
- Criteria must be demonstrated maturely to receive maximum points.
- *Never, sometimes, usually, and often* …words should be included with the numerical score.
- Verbal descriptions for each criteria are written about the performance to be evaluated.
Selecting Criteria

Important components of performance
Avoid details that are insignificant
Write in a language the user can understand
Take into account contextual variable(s) that affect performance
Link to your protocol in PT or teaching in Physical Education.
Reflects best practice or traditional ways to perform the skill
Rubrics

- To be reliable assess the client/student several times and the rubrics needs to contain a sufficient number of sub criteria components, usually 3-5.

- Specific rubrics are more reliable because they are only used for clients/students that have the same characteristics (e.g. level of skill).
How to create rubrics

Step 1: Identify the mature standards of the skill.

Step 2: Develop a list of the most critical criteria of that skill.

Step 3: Identify the critical sub-components of each criteria is representative of each criteria.

Step 4: Includes levels of performance, such as Never, sometimes, usually, and often.
Requirements

• You and your partner(s)
• Need to address steps 1-4 for each assigned motor skill.
  – Two handed catch
  – Batting or Hitting
  – Horizontal Jump
  – Overhand throw
• Need to develop analytical rubrics and use the rubric in evaluating the motor skills when covered in lab.
Example

• Here is an example demonstrating the steps to develop a analytical rubrics
Clinical Gait Analysis

Mature Standards of the Stance Phase

Pelvis: lateral horizontal shift of the pelvis to the stance side

Hip: Extension of the hip

Knee: Flexion during loading
      Extension during loading
      Flexion at push-off

Ankle: Dorsioflexion at heel contact followed by plantarflexion
       Plantarflexion at pushoff
Gait Analysis

Mature standards of the Swing phase

Pelvis:  Drop in pelvis at toe off on swing side
         Rotation of the pelvis forward on the swing side

Hip:     Flexion during swing

Knee:    Flexion during swing
         Extension just prior to heel contact

Ankle:   Dorsiflexion
Gait Rubrics

- Client will demonstrate the above mature components of the walking gait 2 out of 3 time while walking:
  - **Stance Phase**
    - Pelvis: Lateral horizontal shift
    - Hip: Extension
    - Knee: Flexion/extension during loading; Flexion -pushoff
    - Ankle: dorsiflexion of heel followed by plantarflexion
  - **Swing Phase**
    - Pelvis: Drops & rotates
    - Hip: Flexion
    - Knee: Flexion to extension on touch down of heel
    - Ankle: Dorsiflexion

- **Score:** 1= never; 2= sometime; 3= usually, & 4 = often
Movement Specialist Rubric of Walking

- Mature components of leg action
  - Heel strike is evident on each stride
  - Each step is of an equal length
  - Toes are pointed forward
  - Step frequency is consistent
  - Feet land close to each other
Movement Specialist Rubric of Walking

Mature arm action in the walk

- Arms work in opposition to the legs
- Arms are low
- Arms do not cross the mid line of the torso
Analytical Rubric

• Client will demonstrate the above mature components of the walking gait 2 out of 3 time while walking:
  – Leg action
    • Heel strike is evident on each stride
    • Each step is of an equal length
    • Toes are pointed forward
    • Step frequency is consistent
    • Feet land close to each other
  – Arm action
    • Arms work in opposition to the legs
    • Arm swing is low
    • Arms do not cross the mid line of the torso

• Score: 1= never; 2= sometime; 3= usually, & 4 = often