A Structured Approach to Visual Analysis of Movement
Visual Analysis of Movement: How Do We Use What We See?

Precise knowledge of the movement

Activity selected for analysis:

Activity attributes to consider:

- Optimal posture and movement requirements. List critical features across the temporal sequence (=ROM and sequencing of movements e.g., 10 degrees of ankle DF from mid to terminal stance with gait, etc.)
- Underlying components needed for this activity (e.g., muscle length, strength, joint capsule, sensory etc.) Look to the literature.

Directed search strategy

Movement Analysis

Visual Analysis Search Strategies (compiled from multiple sources)

Observation from General to Specific

Observation by Phases of Movement

Observation of Balance

Observation Based on Importance

IDENTIFICATION OF INITIAL CONDITIONS

Environment

Base of Support

Initial Posture/Alignment

- Sagittal plane

- Frontal plane

- Transverse plane

PREPARATION

- Reaction time

IDENTIFICATION OF ACTION IN A TEMPORAL SEQUENCE

Look for critical features of the movement, identify key movement deviations (in all 3 planes of movement sagittal, frontal and transverse)

- **Identification of movement deviations using the temporal sequence and movement specific phases as available**

  - Initiation

  - Execution

  - Termination

Ability to extract useful information

Hypothesis testing: Based upon what you have identified, choose tests/measures to assess for the hypothesized impairments contributing to the movement deviation.

Movement analysis statement is a succinct description of the non-optimal movement patterns within the activity and participation restriction linked to the impairments (in order of priority with primary first) which if addressed will remediate the movement dysfunction

Based upon what you see, choose the most evidence informed interventions for the hypothesized impairments