I. Anatomical Movement Analysis of Whole-Body Movements

1. Key Concepts for Basic Anatomical Movement Analysis
2. Divide movement into phases.
3. Select key joints.
4. Identify key joint movements.
5. Identify type of muscle contraction.
6. Identify prime movers (table 8.1, page 320, and figures 8.1 and 8.2, pages 318 and 319).
   1. Functional muscle group
   2. Primary muscles
7. Key Concepts for Supplemental Anatomical Movement Analysis
8. Identify key stabilizers.
9. Identify key synergists.
10. Identify any requirements for extreme range of motion.
11. Identify any requirements for marked strength or power.
12. Body alignment and technique considerations (table 8.2, pages 324-327)
13. Special considerations
14. Schema for Anatomical Movement Analysis (table 8.3, page 331)
15. Sample Anatomical Movement Analyses
16. Front kick (grand battement devant) from a lunge (table 8.4, pages 332-333)
17. Lateral tilt (table 8.5, page 335)
18. Potential Benefits of Anatomical Movement Analysis
19. Supplemental strength exercises to enhance performance
20. Supplemental flexibility exercises to enhance performance
21. Alignment and technique corrections to enhance performance and in some cases reduce injury risk

II. Other Methods for Movement Analysis

1. Quantitative Versus Qualitative Analysis
   1. Qualitative analysis
   2. Definition:
   3. Example:
2. Quantitative analysis
   1. Definition:
   2. Example:
3. Kinematic Versus Kinetic Analysis
   1. Kinematic analysis
4. Definition:
5. Example:
   1. Kinetic analysis
6. Definition:
7. Example:

III. Sample Research-Supported Movement Analysis

1. Leap (Grand Jeté en Avant)
   1. Basic anatomical analysis (table 8.6, pages 340-341)
   2. Supplemental anatomical analysis
2. Complex cocontraction of the abdominal muscles and spinal extensors for stabilization
3. Extreme hip extension and hip flexion (Tests and Measurements 8.2, page 342)
4. Marked strength required in the hip extensors, knee extensors, and ankle–foot plantar flexors for takeoff phase and landing phase
5. Technique
   * 1. Effective use of stretch–shortening cycle
     2. Magnitude and timing of support leg flexion during the landing phase for optimal attenuation of impact forces
     3. Guidance of the knee over the foot during landing, versus letting the knee fall inward relative to the foot (to reduce valgus stress)

IV. Optimal Performance Models  
Anatomical analysis, research results, and experience can be used to develop theoretical models for optimal performance that merge scientific and aesthetic requisites.

V. Movement Cues  
Movement cues should ideally be simple and accessible but consistent with the current scientific understanding of movement.