

Session 4301-Exercise Renovation with Elements of Variation

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The elements of variation are tools that allow you to provide variety, manipulate exercise intensity, modify for special conditions and keep your workouts fresh.

1. Range of motion: The degree of motion around joints or a set of joints. We can vary the ROM at the main joint involved in the exercise or other joints in the body (ex: overhead squat).
2. Lever: A rigid structure (rod or bone) that pivots on a fixed support or fulcrum and is used to transmit force. The effort required to move and control a load depends on the distance between the fulcrum and the load.
3. Plane: Defines the space in which the limbs or body are moving (frontal, sagittal, transverse or oblique).
4. Direction: Defined as the course along which the body is moving (front, back, side, up, down).
5. Momentum: Defines the quantity of motion and is a product of the velocity x mass. Momentum can significantly increase the intensity and difficulty of an exercise. Requires proper coaching for technique and safety.
6. Asymmetry: Loading or positioning the body asymmetrically changes the muscle recruitment pattern and challenges core and joint stabilizers.
7. Rhythm: Refers to the amount of movement in a given time or the accentuation of a beat, sound or movement. Modifying the rhythm can bias the muscle fiber recruitment (ex: eccentric loading).
8. Mode: Refers to the type of movement, the training modality or the environment (suspension training, free weights, resistance tubing, body weight, kettle bells, pool, etc.)
9. Learning: How the exercise or sequence is broken down and instructed.

Considerations:

- Safety
- Client's needs/fitness level/injuries.
- Type of workout: easier to apply elements of variation when 1:1 but for a group circuit class it's important to keep exercises simple therefore facilitating flow of the workout.

References: Fitness Instructor Specialist Manual, Fourth Edition, Canadian Fitness Professionals Inc. MA Human Kinetics, 2014.
Irene Lewis-McCormick, The HIIT Advantage for Women, Human Kinetics, 2016

Cardio Exercises

	Jack	Skater (step touch)	Burpee	High Knees	Alternating side lunge	Ski
ROM						
Lever						
Plane						
Direction						
Momentum						
Symmetry						

Strength Exercises

	lunge	squat	Push up	Supine bridge	Single leg deadlift	plank
ROM						
Lever						
Plane						
Direction						
Momentum						
Symmetry						