

# Movement Analysis and Fundamental Movement Skills

by Erika Forsberg

For circus teachers to be able to teach a skill is a fundamental part of teaching. However, there is a lot involved in so called skill acquisition. The learner needs an emotionally, socially and physically safe motivational learning environment, which is essential in learning process.

While designing exercises to acquire a motor skill it is recommended to take into consideration the social and cognitive skills involving a certain motor skill like a circus trick. For this purpose it can be useful to reflect on different learning goals:

- social-affective (emotion/feeling) goals like to increase group-cohesion,
- cognitive (thinking) goals like how to assess risks and to take decisions and
- psycho-motor (physical/kinesthetic) like to train different kind of landings in acrobatics.

Also the lesson should include lots of physical activity and repetition as well as variation and adaptation, so the skill set for each individual can broaden and the control and awareness of the movement evolves.

While teaching disciplines, the teacher should be able to create different exercises for the learner, keeping in mind a number of key points. In other words: the core of the movement or technique involved.

Sometimes the movement or technique or even the discipline itself needs to be analyzed thoroughly, so that the teacher can specify where to focus.

In the beginning the main focus is how to be successful (safely) in the movement. A learner is usually able to focus on 1 to 3 instructions at a time, in other words, less is more. The teacher can also teach pupils how to manipulate the training environment with “assistant teachers” using different objects that help the learner to achieve the core or a certain piece of the technique involved. Fundamental movement skills (FMS) consist of locomotor, manipulation, and balance skills. It is difficult to train more specific skills if these fundamental skills are weak or one-sided. The current believe is that many-sided training during childhood and youth will likely produce more successful athletes than one-sided, monotonic training with early specification. However, when a learner adopts more skills, the technique becomes more distinctive and practice must be specific.

Locomotor skills refer to a body moving from one point to another in a vertical or horizontal dimension such as walking, running, jumping, climbing, hopping, skipping, galloping, sliding. Manipulative skills include either gross motor or fine motor movements. Gross motor manipulative skills involve movements that give force to objects or receive force from objects such as throwing, catching, kicking, trapping, striking, volleying, bouncing, rolling and punting. Fine motor manipulative skills refer to small object-handling activities that emphasize motor control, precision, and accuracy of movement.

Balance refers to both the body remaining in place, but moving around its horizontal or vertical axis (dynamic balance) and the process of maintaining postural stability (static balance). Dynamic balance means the ability to maintain postural control during other movements, such as reaching for an object or walking across the lawn. Static balance means to maintain a posture such as balancing in a standing or sitting position. Axial movements, such as bending, stretching, twisting, turning, swinging, body inversion, body rolling, and landing/stopping are all considered as balance skills.

The current believe is that the sensitive learning period for the development of FMS is between two and seven years. To attain higher levels of motor skills later in their life is difficult, although not impossible. You need to acquire an appropriate level of FMS before you can learn specific sport skills.

FMS competency increases also the likelihood of children participating in different physical activities throughout their lives.

References:

**Fundamental movement skills, physical activity, and motivation toward Finnish school physical education:** A fundamental movement skills intervention Jyväskylä: University of Jyväskylä, 2012, 87 p. Studies in Sport, Physical Education and Health. by Kalaja, Sami.

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