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Model learning and video training

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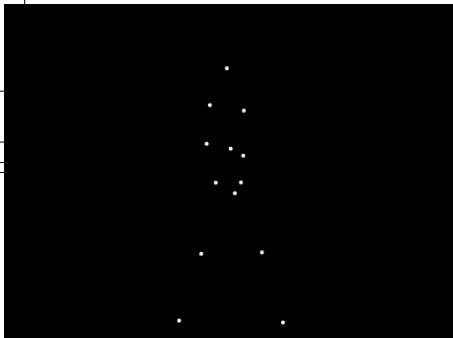
What are the main difficulties in the acquisition of the following sportive movements? Think of methodical procedures, which reduces theses difficulties.

Situation 1
Shot-put: sequential part actions connected in a dynamical way, movement performance, power precondition (methodical exercise row)

Situation 2
Powder snow: dislocation of the centre of gravity, control over skis, learning of variations

Situation 3
crawl technique: movement performance, arm- leg- coordination, breathing (programmed instruction)

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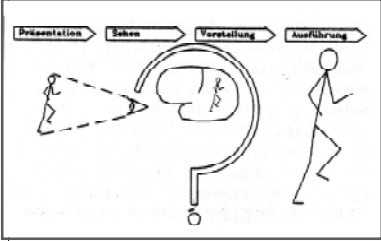


Goals for model learning

1. Record/ measure of the movement aim
2. Strategic beneficial behaviour
3. Progression of movement sequences (movement structure, topology)
4. Time criteria of a movement technique
5. Complete conformity with the time structure of a reference or ideal technique

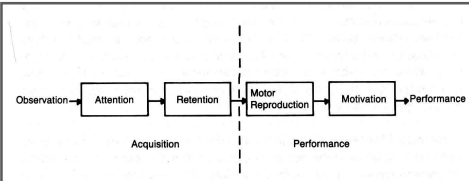
When model learning ...

... the structure of observable behaviour patterns is assimilated and represented in a symbolic way.



Observational learning is controlled through four processes

- Attention processes
- Memory processes
- Motor reproduction
- Motivational Processes



Video training – application situations and goals

<ul style="list-style-type: none"> • Observational training <ul style="list-style-type: none"> - target specifications - failure analysis - competition analysis • Behaviour training <ul style="list-style-type: none"> - performance - self assessment - feedback 	<p>„mental“ examination Improving of the movement idea</p> <p>Approach to a reference value Improving of the movement perception</p>
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Video instructions ...

<ul style="list-style-type: none"> • For Throwing (Kernodle et al. 1992) • Ought to help to „Get(ting) the Idea of the Movement“, Gentile 1972 • Are used therefore, when part elements of the movement and their correlative movements („topological structure of movement“, Scully & Newell 1985) need to be measured 	<p style="font-size: small;">FIGURE 1. Gain in throwing distance over the 12 days of practice.</p>
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Practical recommendations

- Reduce and structure information (short and concise sequences)
- Guide attention (e.g. through graphical orientations or „verbal cues“, on the essential technique criteria)
- Present movement techniques several times
- Make use of slow motion and postures
- Combine video instructions with mental skill training (e.g. let movement presented in connection with target specification)

Planning steps for video units

- Analysis of the video graphic presentable target/ actual discrepancies (Which aspects of technique problems are video presentable?)
- Creation of a reference value
- Fault – and aim analysis (Which technique faults are present? Within which time ought which technique characteristic be available in a steady way?)
- Determination of linguistic terms for marker of target/actual discrepancies
- Determination of methodical structuring of feedback cycles (amongst others which performance ought to be shown (all or specific selected)? How often and with which presentation speed is the actual presentation showed?)

Literature

- Blischke, K., Marschall, F., Müller, H. & Daus, R. (1999). Augmented information in motor skill acquisition. In Y. VandenAuwere, F. Bakker, S. Biddle, M. Durand & R. Seiler (Hrsg.), Psychology for physical educators. Champaign, IL: Human Kinetics.
- Magill, R.A. (2001). Motor Learning: Concepts and Applications. McGraw-Hill. S. 217-226.
- Daus, R., Blischke, K., Marschall, F., Müller, H. (1991). Videotechnologien für den Spitzensport (2. Teil). Leistungssport, 1: 50-55.
- Reiser, M., Panzer, S., Müller, H. (2002). Zur Arbeit im Videolabor – hochschuldidaktische, trainingspraktische, forschungsspezifische Anforderungen und technische Möglichkeiten. In: Altenberger, (Hrsg.) Medien im Sport. Schorndorf: Hofmann.

Summary + exercise

- Name one example of a video use for a group of learners (school, experts, novices) and give reasons why you should use video in the context of your intended career!
- Read: Schmidt & Lee, 2005, p. 301-320
