


Flensburg  
Universität

*ibau*

### Instruction



Markus Raab  
raab@uni-flensburg.de  
www.uni-flensburg.de/~raab

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Name different movement aims in one example for the type of business of your intended career!

Secondary school teacher:

- time minimisation: relay
- distance maximisation: long jump
- hit optimisation: basketball
- difficult optimisation: freestyle gymnastics
- Process optimisation with error minimisation and difficult increase: dancing performance

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### Instruction



SPORT-THEME

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**Instructions of motor learning**

1. **verbal instruction**
2. **demonstration**
3. **guidance**
4. **auditory information**

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**Definition**

Instructions give information, which a learner gets before the (next) movement execution, and which gives him clues, how to solve the movement task (in a better way).

In general a target value of the movement is given.

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**1. Verbal instructions ...**

... serve the pre-orientation on a task, define the way of movement execution and may convey principles of task solutions

- Which movement criteria are verbalizable?
- How much information is retained?
- Do teacher and learner speak the same language?

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### 1.1 Verbal instructions of movement execution

Stretching position - Knee flex and stretch

... and do at the same time with both arms an arm circle in forward direction!

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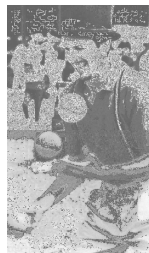
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### 1.2 Verbal instructions and focus of attention

VI can put the focus of attention on

- the movement itself
- the body cognition
- external movement effects



The effectiveness of relative instructions depends on the skill level and the kind of task!

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### 1.3 Verbal instructions and instrumentality of mechanical principles

In a variety of sports ..., the instrumentality of physical principles seems to be sensible and beneficial for learning:

- table tennis, tennis (effects of slice)
- swimming (water resistance)
- cycling, ski-run (aerodynamics)

But there are known as well negative effects of instrumentality of (bio) mechanical principles!

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### 1.4 Analogy instructions ...

... generate a pictographic assignment from one meaning coherence to the other.

„Control the racket due serving, as if you would pull him out of your backpack“



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### Example for a metaphor:

Versuche so zu schlagen, als wenn du den Schläger über die Hypotenuse eines rechtwinkligen Dreiecks ziehst.  
*Hit the ball as if you would move your bat over the Hypotenuse of a right-angle triangle*



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## 2. Demonstration

„A picture is worth a thousand words.“



model learning: lecture sport psychology  
video training: proseminar movement science

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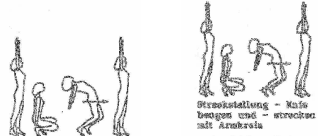
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### Visual and verbal instructions



Streckstellung - Knie beugen und -strecken mit Anekreis und schiebe sofort mit Beginn der Bein- streckung die Hüfte schnell nach vorne

Streckstellung - Knie beugen und -strecken mit Anekreis und schiebe sofort mit Beginn der Bein- streckung die Hüfte schnell nach vorne

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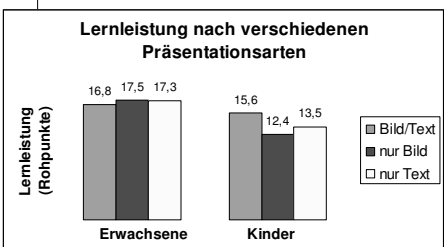
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### Visual and verbal instructions

#### Lernleistung nach verschiedenen Präsentationsarten



Group	Bild/Text	nur Bild	nur Text
Erwachsene	16,8	17,5	17,3
Kinder	15,6	12,4	13,5

(in Blischke, 1988, S. 186)

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### 3. Guidance

With guidance methods the learner is guided through external guidelines to a correct execution.

- Mechanical Guidance
- Visual Guidance
- Verbal Guidance

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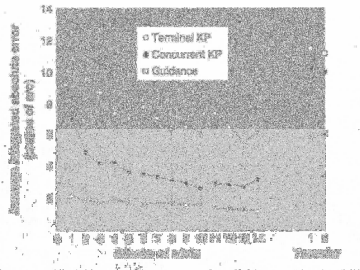
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### Problems in using guidance



(Armstrong, 1970; in: Schmidt & Lee, 1999, S. 317)

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### 4. Auditory data of reference value ...

... are, for instance adequate for instrumentality of

- temporal movement characteristics (duration, rhythm)
- load-time-processes

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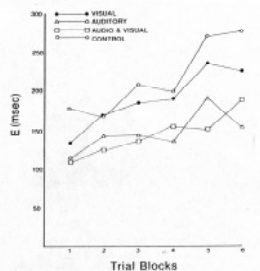
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### Effects of auditory models during a timing-task



(Doody, Bird & Ross, 1985, S. 277)

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<h2>References</h2> 
<p><b>Hänsel, F.</b> (2003). Instruktion. In H. Mechling &amp; J. Munzert (Hrsg.), <i>Handbuch Bewegungswissenschaft</i>. Schorndorf: Hofmann.</p> <p><b>Magill, R.A.</b> (2001). <i>Motor learning. Concepts and applications</i> (6<sup>th</sup> ed.). Boston: McGraw-Hill. [Kap. 15]</p> <p><b>Schmidt, R.A. &amp; Lee, T.D.</b> (2005). <i>Motor control and learning</i> (4<sup>th</sup> ed.). Champaign, Ill.: Human Kinetics [S. 288-292]</p> <p><b>Singer, R. &amp; Munzert, J.</b> (2000). Psychologische Aspekte des Lernens. In H. Gabler, J.R. Nitsch &amp; R. Singer (Hrsg.), <i>Einführung in die Sportpsychologie, Teil 1</i> (S. 247-288). Schorndorf: Hofmann.</p>

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<h2>Summary + exercise</h2>
<p><b>Name for each kind of instruction one movement and one exercise, which is used within the scope of the type of business of your intended career!</b></p> <p><b>Read:</b> <b>Feedback in Schmidt &amp; Lee, 2005, 364-401</b> <b>Rückmeldung/Feedback in eBuT (motorisches Lernen)</b></p>

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