THE MEANING OF INDIVIDUALISED GUIDANCE IN MOTOR LEARNING

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An important field of work in movement sciences is the guidance-technique (GUID). A basic question is concerned with the effects of GUID on motor learning (Wulf & Toole, 1999). However the present findings are contradictory regarding the stabilisation of movement execution and the generalisation of the research results to complex movements (Tsutsui & Imanaka, 2003). The present study verifies the effects of individually adapted GUID to the long-lasting change on the movement quality and its interaction with anxiety regarding the execution of movements.

26 gymnasts (9 ± 1 Jahre) were parallelised concerning their coordinative level and divided into two groups (experimental- und control group). One of the chosen criterion movements was the somersault off the balance beam. The experimental group got an individually adapted GUID, so that the performance anxiety got controlled (self-reporting after each teaching unit; Wulf & Toole, 1999). The control group got no GUID at all. Two independent expert coaches judged the movement quality with the help of digital video of the somersaults (pre, between, post and retention) using an anchored rating scale with eleven categories.

The favorable effects of the GUID on the experimental group can be detected in the learning process as well as in the transfer test for the benefit of the experimental group. The gymnasts of the experimental group show a better movement quality in the learning process, than the gymnasts of the control group, as the analysis of variance shows (F[4, 48] = 5.41; p < .05). In the transfer test, the experimental group was judged 1.83 points higher on the rating scale (p < .05). Furthermore, a significant negative correlation between the anxiety scores and the judgement of the expert coaches within the controlgroup (r = -.93; p < .05) was found.

The systematic use of individually adapted GUID seems beneficial for the learning of the somersault in two ways. On the one hand, there is a positive influence on the immediate learning process; on the other hand and in contradiction to the actual research, long-lasting changes of the movement quality can be evaluated. We suppose that the control of the anxiety seems to be crucially important.

References


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