

Habilitation thesis reviewer's report

Masaryk University	...
Faculty	...
Field of study	...
Applicant	Stanisław Czyż, Ph.D.
Unit	...
Habilitation thesis (title)	The model of acquiring special motor skills
Reviewer	Ass. Prof. E.D. Frantisek Langer, Ph.D.
Unit	University Palacky in Olomouc ...

Reviewer's report (extent of text up to the reviewer)

The issues and monitoring of the level and development of motor learning or, more precisely, special skills in the context of generalization and differentiation is constantly in the forefront of interest of physical education sciences. The requirements of sports training, teaching or job training as well as other areas of practice together with theoretical and cognitive moments, stimulate scientists again and again to explore special sensorimotor skills. Since the end of the last century, much research devoted to this issue has been carried out, and attempts have also been made to organize, analyze and generalize partial data, to formulate universal principles of acquiring sensorimotor skills, etc. The view of the previous development of this area provides a varied picture.

The monograph submitted contains 128 pages, the text includes illustrative figures, diagrams, tables and charts. To develop this professional book, the author has used *the results of his long-term research in the field of theory of motor learning* or, more precisely, the conclusions of critical analysis of professional literary information from verified domestic and foreign sources.

The author of the submitted scientific work, devoted to the abovementioned issues, closely monitors and confronts a set of phenomena in the acquisition of specific sensorimotor skills based on almost the complete knowledge of the development of specialization mechanisms or the effectiveness of learning under stable conditions [the presented surveys are related to discrete, closed skills only (Poulton, 1957), the execution of which is characterized by a stable object, manipulation with the subject, constant conditions of movement and without any difference between rehearsals (Gentile, 2000)].

In order to obtain a more accurate picture of the reality and to avoid simplification, distortion and gross mistakes in practice, the author adds the current tendencies by recognizing the specific aspects, in which the generality is manifested and modified (in the research of sensorimotor skills and the practical applications of this research it is particularly important).

In the summary of knowledge, there are quotations of 141 researchers who lay stress on different moments: combining individual movements in larger units, random testing of various movements and numerous exercises, the knowledge of the results and the conscious analysis of the correct and erroneous way of performing the activity, various physiological or pedagogical aspects, the transfer and interference, etc. Dr. Czyż also adds some of his own publications for a deeper and more complete understanding of the acquisition of motor skills and the development of motor schemes.

It is clear from the author's analysis that the cause of many differences between different researchers in the analysis and interpretation of special motor skills is the variety and specificity of the diverse skills and ways of their acquisition in different as well as stable conditions. Similarly, there are differences between the mechanical concepts of drill, the concepts of knowledge of results or awareness-based exercises, which rest largely *on the existence of different learning styles and on their management by various generalized motor programs*. However, differences also occur in the moments where there are significant theoretical connections and where we can expect the consensus of different authors. Each of these moments is more or less captured adequately by some researchers and not by others - depending on which kinds of sensorimotor skills are being explored.

The findings resulting from the research carried out by Dr. Czyż in the field of acquiring special motor skills are very interesting and enrich the scientific research.

The subject of the monograph, the quality and method of processing, accompanying literary documentation or, more precisely, the author's own research experience convinces me of his high level of competence, and *I strongly recommend accepting this work*.

In the conclusion of the review, I note that the content of the work and the style of the work is at a high level, that its opposition by the classic hypercritical way would be unfair.

Reviewer's questions for the habilitation thesis defence (number of questions up to the reviewer)...

One of the factors influencing the motor learning process is *random practice*. What is your opinion of this concept?

Conclusion

The habilitation thesis submitted by Stanisław Czyż, Ph.D entitled *The model of acquiring special motor skills* **meets the requirements**.

In Brno on May 31, 2017

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Signature