## INNOVATION OF THE SUBJECT OF ARTISTIC GYMNASTICS AT UNIVERSITIES WITH A SPORTS FOCUS - SAFE GYMNASTICS 4ALL (Erasmus+ project)

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The evolution of contemporary education with its current trends, which include the use of digital technologies, is gradually affecting all areas and levels of education. Due to the nature of physical education, where practical learning is key, the potential of innovative approaches to support contact learning has not been fully exploited in this area.

In cooperation of the Faculty of Sports Studies of Masaryk University, The Faculty of Sport of the University of Ljubljana and the Faculty of Kinesiology of the University of Zagreb, new multimedia materials called "Safe gymnastics 4all" were created to support the teaching of artistic gymnastics within the international Erasmus+ project "Innovation of the subject of artistic gymnastics at universities with a sports focus".

The content of these materials aligns with the academic standards set for students studying sports at universities. Nevertheless, they are also highly versatile and suitable for coaches, gymnasts, physical education teachers, and anyone with an interest in artistic gymnastics education.

The educational materials are available to the general public in OPEN ACCESS mode in Czech, Slovenian, Croatian and English. The materials contain textual and audiovisual support for selected about 80 basic gymnastic elements from all disciplines. You can acces it at:

## https://is.muni.cz/do/fsps/e-learning/safe gymnastics 4all/index cs.html

Each element is briefly introduced through commented videos, showcasing the execution from various angles. These videos are valuable for observational learning, a common practice in gymnastics instruction. In the more advanced stages of motor learning, a less frequently utilized method is ideomotor training, which, nonetheless, offers significant benefits. To facilitate this, we've created video recordings from the trainee's perspective, aiding practitioners in visualizing spatial perception and the timing of movements during ideomotor training.

Comprehending the biomechanical principles of these elements is crucial for instructors and coaches, but it can also be beneficial for practitioners who favor a systematic approach to mastering these skills. To serve this purpose, we have developed audiovisual sequences featuring animations that analyze the biomechanical foundations of all the selected elements.

In accordance with the principles and regulations of motor learning, a specific level of motor abilities, limiting the acquisition of a particular motor skill, is considered a prerequisite. Therefore, the materials outline the necessary physical prerequisites for mastering a specific element and provide corresponding exercises to enhance these capabilities. Furthermore, an additional benefit is the inclusion of exercises that can primarily be conducted outside of the gym, facilitating preparation for actual training within a home environment.

Selecting the right methodology for practicing each element is one of the prerequisites for successfully attaining the desired outcome, namely, mastering the skill correctly. For each element, a series of individual steps and drills are suggested, following the established

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principles of didactics and motor learning, such as progressing from the close to the distant, from the simple to the complex, from the easy to the difficult, from the known to the unknown.

An integral component of motor learning in gymnastics is spotting, clearly demonstrated in the videos with accompanying text. Additionally, the videos include a listing of the most common errors in the execution of each element, serving as a valuable resource for teachers and coaches in diagnosing their students' mistakes.

The produced audiovisual materials enable students to prepare both theoretically and physically for their gymnastics lessons in advance, which is expected to accelerate the motor learning process during gym sessions. To assess their theoretical readiness, there are accompanying worksheets that teachers can utilize when instructing students. Furthermore, tests have been developed to evaluate specific theoretical knowledge that students should acquire through the study of these materials.

Placing gymnastics within a broader context provides us with a comprehensive understanding of the discipline. Consequently, in addition to supporting the training of specific gymnastic elements, we have also included concise theoretical chapters covering topics such as the Characteristics of Artistic Gymnastics, its History, and General Didactic Principles."

We are confident that we have developed materials that will not only support in-person gymnastics instruction but also assist students in preparing for practical lessons, both theoretically and physically, in their own homes. We believe that this will enhance the training of gymnastic skills and make gymnastics accessible and enjoyable to a broader audience of sports enthusiasts.



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