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THE THEORY OF MULTIPLE INTELLIGENCES AND THEIR IMPACT ON LEARNING SPECIFIC MOVEMENTS IN SWIMMING

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Abstract: *Understanding, practicing and learning the specific movements in swimming, as part of a whole educational process is achieved by synchronizing the „kinesthetic and space intelligence" as part of the theory of multiple intelligences and „perceptual-motor learning", something that generates a faster achieving of new specific movements in swimming. The contribution of interdisciplinarity is a human performance generator as it „visibly resizes the ephemeral projections of the athletic performance."*
Facilitating the learning of new movements and specific technical mechanisms, involves combining interdisciplinary information as a whole, information that is presented by the one performing the educational process in order to get a proper assimilation in a short time and with positive long-term effects of practical and theoretical concepts assimilated.

Key words: *multiple intelligences, swimming, interdisciplinarity.*

1. Introduction

The assimilation of new theoretical and practical notions involves an existing individual knowledge and data, consisting of personal abilities and skills through which he manifests and reacts to different stimuli. The greater the ability of the individual to use a multi-level interconnection in which all the encoded information acting in the stimulus-response state is stored and the accuracy of processes in the nervous system are more accurate, the more the learning and execution of new swimming-specific skills will be accomplished in a short time.

The personal archive of multiple individual intelligences consists of a genetic part and an acquired part, the acquired part being directly under the influence of the family, the individual's living environment, the level of knowledge, age, etc. The formation and improvement of as many skills as possible is a permanent open process, regardless of age, in which the volitional side has a dominant role and contributes to the individual building and structuring of each person.

Receiving and storing information on a background of mental „know how" state, a state induced to the subject by the attitude and body expression of the one leading the educational process. „The visual and auditory transfer of information following the assimilation and then mimicking gestures in axes and synchronized plans with verbal explanation."

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The information can be expanded and could be interpreted as a philosophical structure as in the paper ”*Swimming as art and philosophical structure”:* ”habit formation is favored… the achievement of mental representations, designed to help correct structuring of appropriate thinking and consequently to the formation of a corresponding behavior”. [5]

In a previous published I noted that ”the value of the information valence motor communication outlines different aspects of form perception and interpretation of background transfers generating a well-defined execution techniques.

Movements, amplitude, force and speed of execution of specific processes swimming technique, perceived, interpreted and subsequently played generating new shades and different perceptions to the which communication to define advanced motor which in turn generates an assimilation to a higher mental level. This reinterpretation allows assimilation and formation of a new rendering information”. [6]

2. Objectives

Providing a customized transfer of information using multiple intelligences theory and specific uptake of new swimming movements, movements that will promote the storage of motor skills useful for other fields.

3. Material and Methods

Study participants possess a set of intelligences that can be evaluated and used in sporting activities as supporting elements for valuing collateral-kinesthetic body intelligence involved in achieving specific swimming movements.

Among other claims related to the contribution and impact on learning specific swimming movements, the theory of multiple intelligences – „believes that human beings have multiple intelligences, but each person has a unique profile or a combination.” [7]

Following this combination or unique profile will also allow a transfer of customized information to be stored, the one responsible for this transfer is the one leading the educational process.

Howard Gardner claims that all human beings have multiple intelligence. These various types of intelligence can be fed and strengthened and weakened or on the contrary, ignored. [8]

3.1. Subjects Groups

8 people were surveyed, aged between 12 and 16 years.

Multiple intelligences addressed: body – kinesthetic, spatial-visual, interpersonal, intrapersonal.

3.2. Hypothesis

The application of the intelligence test HAGIM could provide a prospective vision of the subject's cognitive system, which will influence the future motor activity that they will hold.

Subjects received information about the application of multiple intelligences theory, realizing the importance of addressing such specific movements towards learning swimming. They realized the four pillars of the specificity of swimming, namely bodily-kinesthetic, spatial-visual, interpersonal and intrapersonal.

During the study data records were made in the initial and intermediate phase, chart no.1; the intermediate and final phase, chart no. 2; the initial, intermediate and final phase in chart no.3

Not knowing the importance of the multiple intelligences theory in the initial phase, the subjects had low initial scores at the first evaluation. Partial results of the study were recorded in tables and highlighted in the chart no.1.

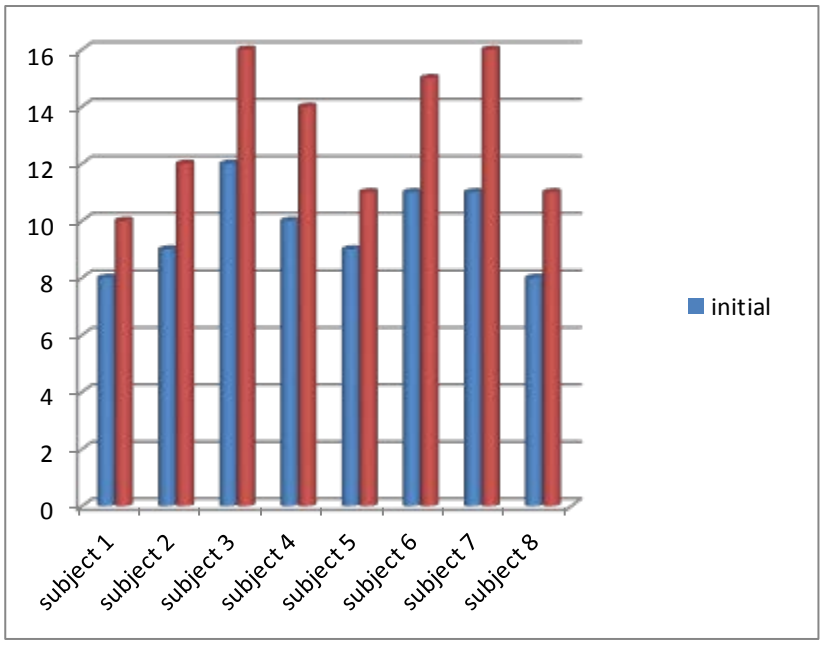

Chart 1. *Initial-intermediate phase*

After receiving information about the multiple intelligences theory in general, the subjects were aware and focused on tangible manifestations -kinesthetic, spatial-visual, interpersonal and intrapersonal.

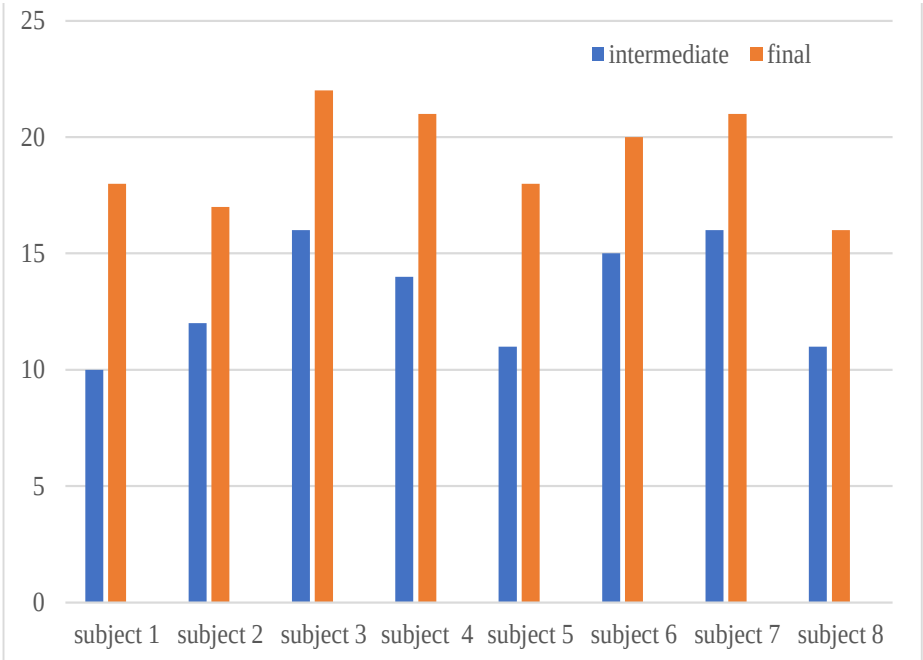

Chart 2. *Intermediate-final phase*

The progressive values in the intermediate stage compared to the initial ones demonstrates that receiving theoretical information on specific movements allowed a more concentrated and a more focused attitude favoring the conversion of information theory into action, playing a specific role in assimilating specific swimming movements, chart no.2.

Between intermediate and final phase there is a difference which means accumulation and greater awareness in the implementation of specific swimming movements. All the 8 subjects showed a progression from the intermediate to final evaluation.

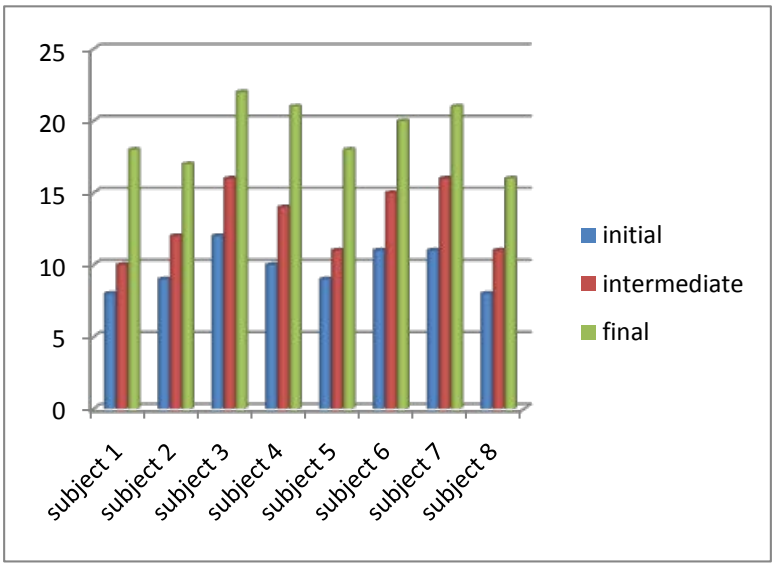

Chart 3. *Final-intermediate-final phase*

The phases, initial, intermediate and final displayed in the chart. 3 show the evolution for all subjects and progress on specific movements swimming assimilation under the impact of multiple intelligences theory.

4. Results and Discussions

The values obtained at the end of the study are higher than the original ones, which proves that the existence in the individual stock of the 8 subjects of multiple intelligences and being aware of its contribution in learning, strengthen and improve specific motor movements and can facilitate the learning of other complex motor actions, chart no.3.

All 8 subjects showed interest and curiosity in receiving information about multiple intelligences theory, being pleasantly surprised by the results.

Satisfaction of learning motor skills specific to swimming had an impact on inter and intrapersonal behavior, generating more confidence, communication and self-control.

As in other studies [3] conducted, the appliance of the multiple theories and the shaping of a personal profile generates successful learning, consolidation and improvement of various specific motor actions, in this case specific swimming movements, and later use of the skills formed in other fields.

In other sports, as I stated in another published work you can notice that

”transmission of information in the process of learning alpine skiing as an activity of leisure is based on the similarity of „body intelligence -kinesthetic intelligence” Space as part of the theory of multiple intelligences and „learning perceptual-motor” can generate and assimilate theoretical and practical concepts in less time due to interdisciplinary connections and the use of summary information to explain and demonstrate the technical mechanisms specific to learning alpine skiing as a leisure activity.” [4]

Also, ”the possibility of transmitting correctly practical and theoretical information depends on the trainee’s personality who shows the movements (static or dynamic)” [4] appeal to levels of multiple intelligences that it has archived and subject to appropriation of their.

Exercise component acts on both physical and mental because of the lead to changes in their body image and improvements in terms of interpersonal relationships through social effect [1] ”in this individual development, physical development occupies a special place. To achieve this requires choosing of strategy to maximize the potential of native children.” [2]

5. Conclusions

The theoretical transmission of information through a visual and auditory transfer in order to obtain a bodily-kinesthetic expression through action and visual space can be influenced by the storage components in a set of multiple intelligences and voluntary personalized access.

Specific swimming driving actions, synchronization and coordination of movements in the fluid involves making the best intelligences of each topic prevailing party, which will determine correct and rapid assimilation of specific movements.

The individual profile of multiple intelligences that each subject manages and which finds its practicality by making specific swimming movements, favors the motor action storage that will be used in the achievement of specific movements in various other fields.

In the transmission of information subjected to assimilation, it is very important to take into account the level of „personal acquisitions” in the motor, psychological and theoretical-informational aspects, which have decisive roles in the assimilation of the new notions as a whole.

Assimilating by practicing the ability to perform specific swimming movements in the water generates an internal change in the individual's motricity due to the need to adapt the body-kinesthetic actions to the disappearance of the gravitational force that does not manifest in the water environment and to adapt the spatial orientation to the elimination of the orthostatic position.

For the special categories of people with disabilities, the theory of multiple intelligences is manifested in an adapted form, and there are many compensatory movements here, corporal-kinesthetic and spatial-visual actions gain new dimensions in the perception and subsequent rendering of the motor actions, which are often carried out with „waste of energy”. In such cases, the action of the water environment on the individual's body with special educational requirements will act as an obstacle in the assimilation of the specific notions of swimming, but not impossible to approach and achieve.

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