ORIGINAL RESEARCH PAPER | Physical Education | Volume : 6 | Issue : 7 | July 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

Manifestation of Multiple Intelligences in Junior Athletes Practicing Judo and Fencing

KEYWORDS: athlete knowledge, multiple intelligences, sport

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ABSTRACT *Dropping out of competitive sport at a young age is largely contributed to the limited spectrum of information which we have from the athlete.*

To evaluate the multiple intelligences of different athletes, in order to observe the level of ability and predispositions that the individual possesses at their peak, and of which we are unaware.

We believe that by applying the Howard Gardner intelligence test we can obtain a prospective vision on the cognitive system of the athlete, which can be used in the continuation of the sporting activity.

The research carried out observed and evaluated two groups of athletes (judo and fencing) and two groups of non-athletes (in the same age group through the use of the multiple intelligences test.

Following the research, we have undertaken practical measures of using the predominant forms of intelligence materialised through an increase in learning spped.

Introduction:
A person's strength comes from exploiting the channel of learning that results from the identification of the type of intelligence manifested and the subject's vocation for it.

It is important to remember how you were when you went to school as children. Of course you remember certain things that you liked very much, or certain activities that you did well or with great precision.

That is the moment when we can see in a child their introspection and discovery of their own personality. (1)

The training of athletes must be carried out in a specialized, unified manner for all of the components of sports training and all of the individual aptitudes of the athlete.

In order for training to be efficient, it must contain diverse physical activities reflecting those used in competition, beginning with the specific type of effort involved, technique, tactics, the development of motor skills and personal development. (2, pg.239)

A modern factor of sports performance is predominant intelligence, which can compensate for certain weaker abilities.

Howard Gardner argues that all human beings have multiple intelligences. **These diverse types of intelligences can be nourished and improved or the reverse, they can be ignored and weakened.** Many successful adults were considered failures at school, as a result of a system of inconclusive evaluation.(3)

One of the opinions regarding multiple intelligence is the following:

traditional vision – this believes that intelligence can be measured through the use of short-answer tests

the theory of multiple intelligences – this theorizes that all humans possess many different types of intelligence, but that each person has a unique combination of these or profile.(4)

The athletes who participated in this study should possess a set of intelligences which can be evaluated and exploited in sporting activities, as collateral supporting elements for the capitalization of bodily-kinestethic intelligence. (3)

The evaluation of bodily-kinesthetic intelligence must be carried out on the **components and substructures** congruent to the forms of intelligence involved in the practiced sporting disciplines. (3)

HYPOTHESIS
We believe that by performing the Howard Gardner intelligence test we can obtain a prospective vision of the cognitive systems of the athletes, which can be used in the continuation of their training.

RESEARCH METHODS
The test administered was the Howard Gardner Multiple Intelligences (HGMI). The test consists of 35 statements which the athletes appreciate according to their own activities. The statements were evaluated using the numbers 1-4, each corresponding to a different grade. After evaluation of the statements, the vertical sum of the marks awarded is calculated and noted in the separate grids corresponding to each type of intelligence.

Thus, the different values (high or low) and predominance for some types of intelligence were highlighted.

By using the theory and instruments of multiple intelligences we can observe the athletes' preferred styles of learning, upon which we can create efficient methods and techniques for development.

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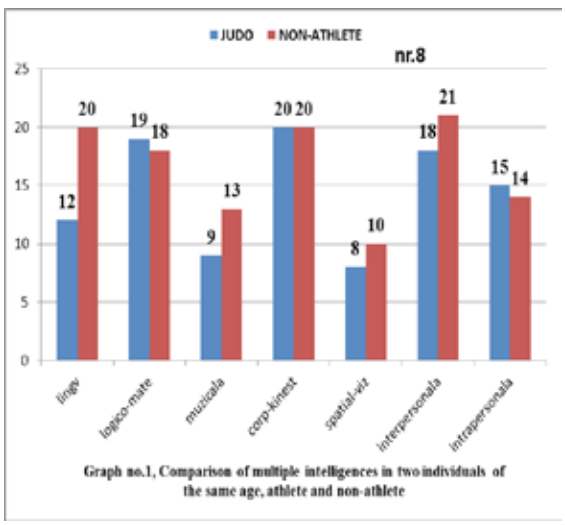
Following the use of the multiple intelligences test we can see the capabilities that a person has, in order to develop their strong points and recognise their weaker points which can be improved without eliminating them.

Developing the strong points of a person will increase their motivation and eagerness to learn, positive results will be obtained and the individual will be pleased with themselves.(3)

SUBJECT GROUP

Two age categories were investigated, respectively 15-16 years and 12-13 years.



Graph no.1, Comparison of multiple intelligences in two individuals of the same age, athlete and non-athlete

In the 15-16 years category, two groups of 10 children were investigated, one made up of athletes practicing Judo and the other comprised of non-athletes.

In the 12-13 years category, three groups of 13 children were investigated, one group of judo practitioners, one of fencing practitioners and the last, non-athletes.

Other scientific studies which have used the multiple intelligence test show the following:

Instruments designed to recognize multiple intelligence have been used on other groups of children, however, the parents and teachers were not happy with the results obtained. It is possible that the results did not match the parents' expectations.

The teachers were asked if they wished to use these instruments in their activities, but the response was negative, owing to a lack of scientific knowledge.

On the other hand, it was noticed that the students were eager to use these instruments and they treated them with much more maturity. (5)

The results were recorded in tables and are presented in the graphs below.

RESULTS AND INTERPRETATION OF DATA

We analyzed a set of 7 intelligences, uniquely proportioned in the case of each athlete. We can see that some intelligences have high values, while others have lower values.

Thus, in the individualized training carried out by each trainer with their athlete, a correlation can be made between the intelligences revealed as being **strong** and the forms of physical manifestation observed during training sessions.

In the graph below, graph no.1, we can see a parallel evaluation of multiple intelligences between the judo practitioners in group no.8 and the non-athletes in the control group.

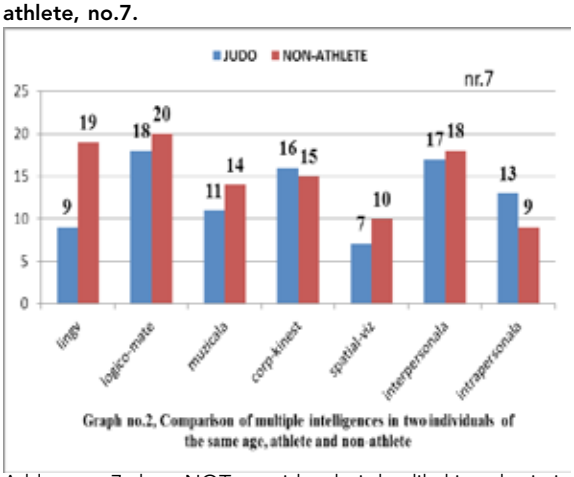
From data obtained from the trainer we know that the Judo practitioner has been practicing this sport for 8 years, with very good results nationally.

Following the multiple intelligence tests we observed that athlete no.8 shows remarkable abilities regarding logical-mathematical, bodily-kinesthetic and interpersonal intelligences.

The athlete also made a positive appreciation of their kinesthetic abilities, something which correlates with long-term sports training and therefore a very good motor capacity. As well as this, the fact that Judo is a contact sport also means the development of intelligences regarding relationships with others.

By analyzing the multiple intelligences of athlete no.8 the trainer should perfect bodily-kinesthetic intelligence and work on developing the intelligences with lower scores, which are solicited in Judo: spatial-visual, interpersonal and intrapersonal.

In graph no.2 we can see the difference in results regarding the multiple intelligences of athlete and non-athlete, no.7.



Graph no.2, Comparison of multiple intelligences in two individuals of the same age, athlete and non-athlete

Athlete no.7 does NOT consider their bodily-kinesthetic intelligence to be very developed. We can see that their score for bodily-kinesthetic intelligence is only one mark higher than that of a non-athlete, while the intelligences with the highest scores are mathematical and interpersonal.

Following discussions with the trainer we discovered that athlete no.7 has been training for approximately 2 years, without notable competition results, something which correlates with the low corporal intelligence score.

As well as this, the high logical-mathematical intelligence score demonstrates to us that the athlete has very good mathematical skills, a fact confirmed by their high grades at school.

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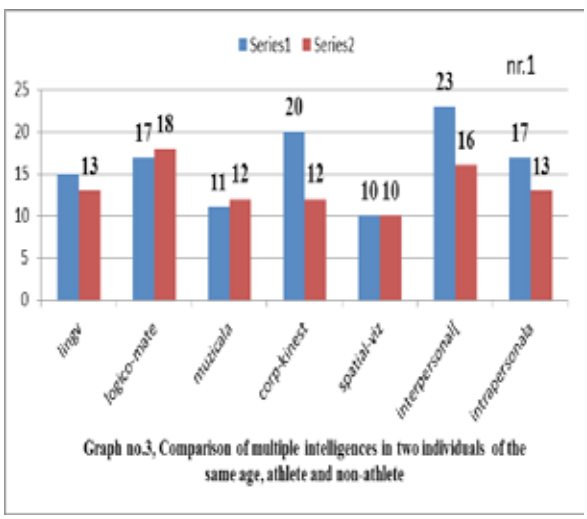
In accordance with the results of the HGMI test, the trainer needs to be aware that the training of athlete no.7 should be orientated towards the development and consolidation of bodily-kinesthetic, spatial-visual, and interpersonal intelligences.

In graph no.3 we have a comparison between a judo practitioner and a non-athlete.
This athlete (nr.1), obtained high scores in corporal and logical intelligence, abilities confirmed through excellent competition results - 2nd place nationally in 2014 and 3rd in 2015.

The results of this athlete reflect well the training undergone and the level of preparation.

In the case of the non-athlete, the results are average, with higher results obtained in logical-mathematical intelligence, demonstrating a reduced amount of sporting activities while having good academical results.



Graph no.3, Comparison of multiple intelligences in two individuals of the same age, athlete and non-athlete

The evaluation and study of individual intelligences highlighted other aptitudes that the individual is unaware of but which can be applied in daily life.
Evaluation of multiple intelligences in the age group 12-13 years - JUDO, FENCING, AND NON-ATHLETES

In graph no.4 we can see the multiple intelligences evaluation of three individuals, a judo practitioner, a fencing practitioner and a non-athlete.

We can see that the highest values were obtained by the judo practitioner, the best results being in logical-mathematical, bodily-kinesthetic and interpersonal intelligences.

Similar results can be seen in the case of the fencing athlete, who showed the same predominant intelligences.

The results of the non-athlete are slightly lower, with bodily-kinesthetic and interpersonal intelligences predominating, as well as musical abilities.

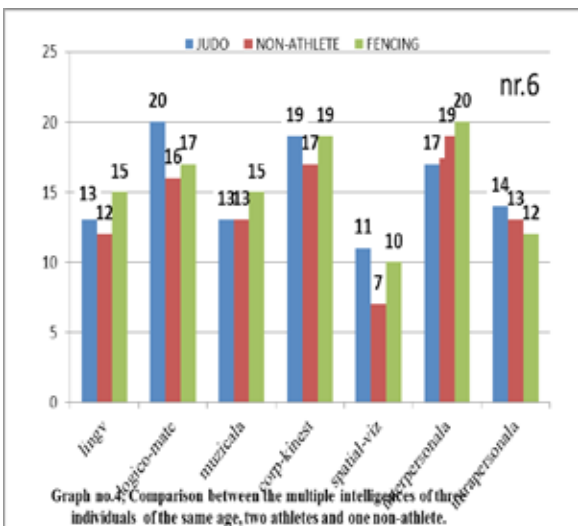
On the other hand we must specify that the individuals evaluated have similar scores due to the fact that they are the same age. As well as this, sporting activities carried out for 2-3 years have not significantly developed corporal intelligence, and so the values are not at their highest.

In the case of the non-athlete we see good perception of corporal intelligence, this being uninfluenced by any kind of sports activities, something which demonstrates that the subject would has talent and potential in sport.

Following this evaluation we also revealed poorer abilities in the three subjects.

The judo practitioner needs to improve spatial-visual and interpersonal abilities, while the non-athlete also needs to improve these areas plus linguistic abilities.

After evaluating the intelligences of the three children, we can observe that the non-athlete also possesses sporting aptitude, and that the judo and fencing athletes also have mathematical abilities. In practice this is not known and so the activities of each are unidirectional. Administering the HGMI test gives new information to the trainer or parent regarding the intelligences of their own children or athletes.



Graph no.4, Comparison between the multiple intelligences of three individuals of the same age, two athletes and one non-athlete.

Thus, the existence of predominant intelligences could direct the individual towards activities which they enjoy practicing.

In graph no.5 we have the evaluation of subjects no.4 as follows: the judo athlete's highest scores were recorded in corporal, logical-mathematical and interpersonal intelligences, abilities which are important for this type of sporting activity.

The fencing practitioner scored highest in logical-mathematical intelligence although scores in the other types of intelligence were quite low. The non-athlete's best scores were in logical-mathematical intelligence, while scoring average marks for the other intelligences, somewhere between the two athletes.

Something which must be noted is the spatial-visual intelligence score of the non-athlete which is much higher than that of the two athletes, who should normally have better spatial orientation through the nature of their training.

In conclusion, the children have similar scores due to the fact that the athletes have been practicing their respective sports for an insufficient amount of time for there to be a notable development of their abilities.

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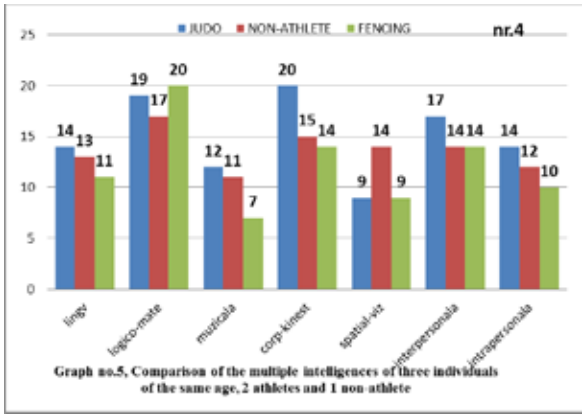

Graph no.5, Comparison of the multiple intelligences of three individuals of the same age, 2 athletes and 1 non-athlete

However, the trainers now know the level of their athletes' abilities and can orientate their training much better.

CONCLUSIONS

In the athletes who have been training for a longer period of time we can see that motor intelligence predominates.

In the case of the athletes who have only been practicing their sport for a short amount of time, motor intelligence does NOT predominate, however this correlates with their other abilities

By performing the HGMI test on the group of athletes, a trainer can see which are their principle intelligences, and which ones are complementary.

It shows that the strength of a person comes from maximum implementation of the predominating intelligences, leading to remarkable performances.

Administering the HGMI test highlights a unique, personal set of intelligences for each athlete, from which the trainer can benefit, treating it like an individual map.

The studies carried out show that individual potential needs to be developed in the long term. Work and a long period of time are required in order to become aware of one's own intelligence in order for it to benefit the student's professional and social accomplishments. (5)

Unfortunately, many schools and teachers still use the concept that a child is either intelligent or not, and that he either has a high level intelligence or a low one.

In various sports activities, the label 'You'll never make it!' is still frequently used, especially in the case of athletes, causing the children to become frustrated and have lower self-esteem. (3)

Through the use of the HGMI intelligence test, we can see the mistake in directing our children towards activities which we ourselves like but which are not suitable for them. Determining multiple intelligences and especially those that predominate, can definitely lead to the maximization of individual aptitudes and to practicing activities more enjoyably which will ultimately lead to better results.

REFERENCES

[1] http://www.desprecopii.com/info-id-485-nm-Inteligentele-multiple-ale-copilului.htm#_, 17.02.2016, 9.19

[2] Dragnea, A., (1996), Antrenamentul sportiv, Editura Didactică şi Pedagogică, R.A., Bucureşti.

[3]http://www.businessballs.com/howardgardnermultipleintelligences.htm,17.02.2016,15.52

[4]http://www.nlpexplorer.ro/articole/articole-nlp/teoria-inteligentelor-multiple/, 17.02.2016,12.35

[5] Sorin-Avram Vîrtop, Posibilities of instruction based on the student,s potential and multiple inteligences theory, Procedia - Social and Behavioral Sciences 191 (2015) 1772 – 1776