

## THE TRAINING TO IMPROVE SPEED YOSHINKAN AIKIDO

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**ABSTRACT. Introduction.** Aikido, “the way of harmony and love, containing techniques for developing balance, coordination body (joint techniques, throwing, pivot)”. It is approached at early ages, being a branch of sport much favored by children at young ages 6-10 years. This sub-branch of martial arts, due to exoticism, of how it is perceived by the little children produce emulation attracts to practice of a lots of children. On the on the one hand because of the “mysteries” that accompany this sport, on the other hand due to the instructive accompanying it. Among the many branches of martial arts, where some have the tendency more strongly to only focus on technical training, ignoring physical training, other martial arts ignore even preparing locomotor system, to practice safely this art, some even preparing musculoskeletal the practice safely this art. Current Aikido (Aikido Yoshinkan and Takemutsu) maintained in the training program and attaches the utmost importance of physical training: by approaching varied means of physical training for all age levels. Even for young children, a fact demonstrated in the pilot experiment conducted in 2012, the first program launched in Romania in the private school “*Happy Kids*”, today “*Transylvania College, Cambridge International School-Cluj*”. This article proposes practitioners a set of athletics exercises in order to strengthen speed, with its forms of expression. By practicing these means of athletic, 2-3 times a week, can obtain high values of this quality (if there is genetic determinations), while in generally, give positive results in improving the biometric qualities, but also the correction of some posts balance or even fighting techniques.

**Keywords:** *Speed, strength, stamina, aikido, Saito sensei, Kata, Koshi-nage, discipline, balance, coordination.*

**REZUMAT. Antrenamentul pentru perfecționarea vitezei în Yoshinkan aikido.** Yoshinkan Aikido este o ramură a aikido-ului care urmărește, pe lângă pregătirea tehnică, și perfecționarea calităților motrice de bază și specifice. Scopul acestui studiu a fost de a stabili raportul de performanță între elevii care practică sistematic forme de pregătire specifice atletismului (alergare de viteză) și cei care practică doar tehnicile aikido-ului. **Materiale și metode.** 20 de elevi voluntari din fosta

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școala "Happy Kids", astăzi "Transylvania College, Cambridge International School-Cluj". Au fost executate măsurători antropometrice (greutate, înălțime). Toți subiecții au efectuat două teste: 1. Testul „Transfer” 2. Testul „Bip” în urma căruia s-a constatat că viteza era cuprinsă între 18 și 48 de secunde la primul test, în timp ce la al doilea test fiind de 1,3 și 3,6 secunde, la grupul de control. La testul final, grupa de control a obținut un rezultat superior, înregistrând chiar și 10 secunde mai puțin decât la prima testare. **Concluzii:** creșterea vitezei de reacție, deosebit de importantă în artele marțiale a fost vizibil superioară odată cu introducerea alergării de viteză din atletism. Totuși, un punct negativ al acestei cercetări este că cercetarea a fost realizată pentru o perioadă scurtă de timp (3 luni) și nu știm în ce măsură aceste îmbunătățiri ale vitezei se pot menține în timp. De asemenea ar fi important de cercetat efectul antrenamentelor de acest tip și la adulți, unde parametrii ar trebui să fie diferiți.

**Cuvinte cheie:** Viteză, forță, rezistență, aikido, Saito sensei, Kata, Koshi-nage, disciplină, echilibru, coordonare.

## Introduction

The current aikido largest share in the initiation or advanced training, practice consists of a series of conventional techniques in the form of Kata (pattern), but often the techniques have no connection with combat situations, and practice only Kata can lead to distortion of reality. (*Kata - are pre-arranged forms that come from Japanese medieval periods. Their correct practice can bring significant improvement of techniques.*) (Authors Note)

We see numerous demonstrations practitioners executing some simulations of combat and the opponent is thrown very easily in all directions. The majority of those that operate training in this form they are confident in their results they will get (a component more psychological than physical) but without consistency or predictability certain.

In reality the works are much different and not just the mere repetition of some techniques, as in *Uchi Komi*. When a Grand Master *Uyeshiba Morihei* (1883-1967) has developed this martial art, he pursued two important aspects: effectiveness fighting techniques, even for a person with a physically less strong, and avoid applying brute force to thwart an attack (*Ueshiba, Morihei, 1998*).

In fact these situations demonstrate the effectiveness of this martial art, the possibility of efficient to the maximum of human potential, even if it has no physical parameters of force or excess body weight.

The long process of search of master *Uyeshiba*, it made the development of techniques to contain two major periods:

1. the period until 1946
2. the period after 1950 (*Saito, Morihiro, September, 1973*).

After the death of master Ueshiba aikido was divided. Only two masters have forwarded what wanted really great Morihei Ueshiba: sensei *Morihiro Saito* (1928-2002) and sensei *Gozo Shioda* (1915-1994). Although each had separate schools with separate names, however, they have both approached pragmatically and common Ueshiba aikido. (*Pranin, Stanley (Fall-Winter 1966) – Morihiro Saito Celebrates 50 Years in Aikido. Aikido Journal 109*) Ueshiba's son, *Kisshomaru Ueshiba* (1921-1999) preferred a commercial approach, focused on philosophy (*Ueshiba, Kisshomaru (1987) - The Spirit of Aikido (1987), Kodansha International*).

*Gozo Shioda* becomes student of the master Ueshiba in 1932, when he the *Uchi-deshi* enroll (*internal student*). In a very short time wins the sympathy and respect of all his colleagues, through special qualities that he has (*Shioda, G., 2002*).

In 1955 Shioda opened his own school “*Yoshinkan aikido*” that emphasizes self-defense elements on concrete situations of struggle, and less on Shinto philosophy which we find highly developed in aikido of Ueshiba (*Shioda, G., 1968*). Besides the 150 fighting techniques, physical training include: consolidation of speed, endurance, strength, skill, and especially of balance and coordination (*Shioda, G., 2002*).

As the, *Yoshinkan Aikido*, ensures in parallel, technical training and physical training, a harmonized approach very much appreciated by those who practice it, we considered useful our intervention to showcase some resources of athletics which are selected for speed development of practitioners of this martial art. These data and means were selected from a group training program to Yoshinkan Aikido practitioners in Cluj-Napoca, and the program implemented in the private school “Happy Kids” today “Transylvania College, Cambridge International School Cluj”.

## **Materials and methods**

*Materials:* elastic cords; mattresses; stopwatch; Kimono.

*Methods:* verification; observations.

## **Methods of physical training. Improving speed**

**Speed** - it is one of the particularly biometric qualities very important in most sports, but also in practice aikido. To improve it to take account of the fact that it is genetically determined, and its improvement is quite low and it can be increased not more than 20%.

### **1. The alternative method**

**1.1. Sprint** - 2-3 seconds, then continued running of inertia.

- No. series: 5 series.
- Cumulative distance traveled: up to 200 m.

**1.2. Sprint distance** of 20-40 m. Of inertia continued to run 20-30 m.

- No. series 3-4.
- Cumulative distance traveled: up to 200 m.
- The duration of the pause between sets: 3-8 minutes (the rest are working in pause between sets: 3-8 minutes (the rest are working on the fund of resting. Otherwise we don't develop the speed, but resistance).

### **2. Handicap Method**

**2.1. Running after partner** – 2 pairs. One of the team sprint, after a few meters, the other starts and should catch up.

- No. series - 3-4.
- Distance - 50-60 m.
- The duration of the pause between sets - 5-10 minutes.

### **2.2. Start with elastic cords**

Ropes link on his shoulder and starts running in different positions: start block, feet, etc.

- No. series - 3-4.
- Distance - 4-5 m.
- The duration of the pause between sets - 3-5 minutes.

### **3. Repeat Method**

**3.1. Sprints** over distances of 30, 50, 100 m near the maximum speed (80%).

- No. series - 3-4.

### **4. Speed of reaction**

**4.1. Star** to audio signal - running distance 20 m.

**4.2. Easy running**, audio signal. - running speed 20 m.

**4.3. Playing ankles** - audio signal - running 30-40 m.

**4.5. The star block** - beep, running speed 30-40 m.

**4.6.** Tandoku-renshu (repetition of aikido techniques without a partner), audio signal, running 20 m.

**4.7.** Jogging – audio signal, return and speed running in the opposite direction until another audio signal.

**4.8.** From face to face – Sumo (reciprocal resisting pushes) – audio signal, running speed.

## **5. Speed of execution**

**5.1.** Face to face – entries of the preferred technique (Tokui-waza) – audio signal, changing pairs the nearest.

**5.2.** Entries with back to the partner to simulate throwing *Koshi Nage* – audio signal, change, the nearest partner, and execute the technique *Irimi-nage*.

**5.3.** Pulling the rope elastic and sound signal sprint 3.6 sec.

**5.4.** Support on the wall, playing ankles, audio signal, and sprint back 5-10 sec.

**5.5.** Running with knee to the chest, audio signal, *tandoku renshu* 10 sec., audio signal, running with knees to chest.

**5.7.** Tokui-waza (the preferred technique) - 5-10 sec., audio signal, 10 m sprint, audio signal, Tokui-waza.

**5.8.** Sprint, audio signal 10-20 m, 10-20 m running back, audio signal sprint forward.

## **6. Travel speed**

**6.1.** Running speed 20 m;

**6.2.** Uchi-Komi - threes, one in the middle, a technique preferred (Tokui-waza), running from one to the other,

**6.3.** Tai Sabaki (turns, pivot) on different directions of travel;

**6.4.** Pushups (4-5), and sound signal input to a preferred technique;

**6.5.** Butsukari geiko (movement exercises) - execution of the preferred technique or imposed, on the forward or back, in the shortest time.

## **7. Applicative Games**

**7.1.** In couples, tracking partner to attain it, then the role is reversed, 4-6 times.

## Results

### Test 1 - *The initial evaluation stage*

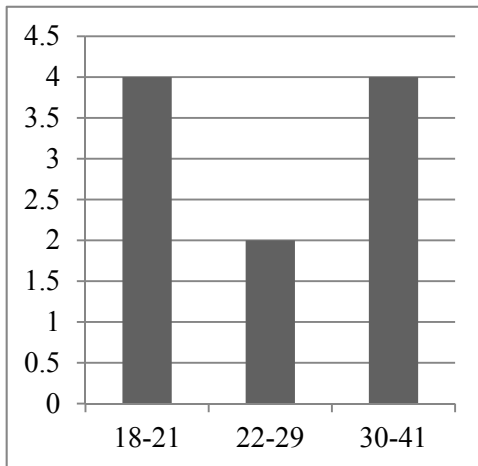
#### 1. Group target

Table athletes running 10x5 test samples and test "Beep"

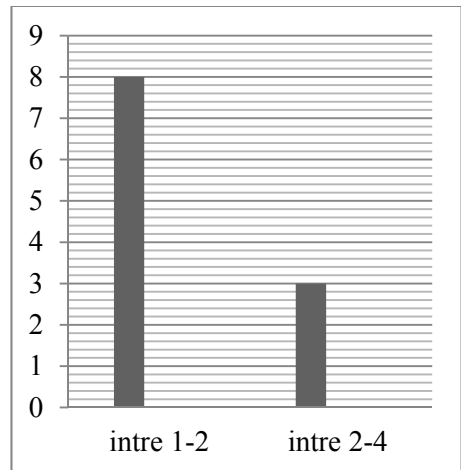
**Table no. 1.** Athletes control group test in samples running (10x5m) and "Beep" Test

Name and Surname	Date of birth	The height	Weight	10 x 5m "Transfer" Test	"Bip" Test
H. D.	2.03. 2004	129 cm	27,51 kg	20 sec.	1,3"
R.M.	5.12. 2003	130 cm	27,10 kg	32 sec	1,7"
B.V	23.04.2003	140 cm	32 kg	31 sec.	2,0"
B. M.	12.10.2004	132 cm	42 kg	32 sec	2,21"
C.A.	2.06. 2003	142 cm	31 kg	41 sec	3,0"
P.A.	8.11.2003	129,6 cm	36 Kg	27 sec	3,1"
M. R.	16.12.2004	131 cm	39 kg	21 sec	2,0"
H. D.	2.03. 2004	129 cm	27,51 kg	18 sec.	2,9"
R.M.	5.12. 2003	130 cm	27,10 kg	29 sec	3,6"
D. D.	2.11.2004	128 cm	40 kg	20 sec.	1,3"

#### Graphical representation



**Fig. 1.** "Transfer" Test



**Fig. 2.** "Beep" Test

**The interpretation database of target group**

Whereas group that we study, we consider it the target group, we see that after testing of “transfer test”, we have the following data: Four subjects received values ranging 18 to 21 seconds, and the other four received values between 30 and 41 seconds. The rest, the two subjects, obtained values between 22 and 20 seconds.

At the “beep test” eight subjects have values ranging from one to two seconds and two others from two to four seconds.

The standard values are shown in Figure 3.

	<b>Males (seconds)</b>	<b>Females (seconds)</b>
<b>Excellent</b>	< 9.5	< 10.5
<b>Good</b>	9.5 to 10.5	10.5 to 11.5
<b>Average</b>	10.5 to 11.5	11.5 to 12.5
<b>Poor</b>	> 11.5	> 12.5

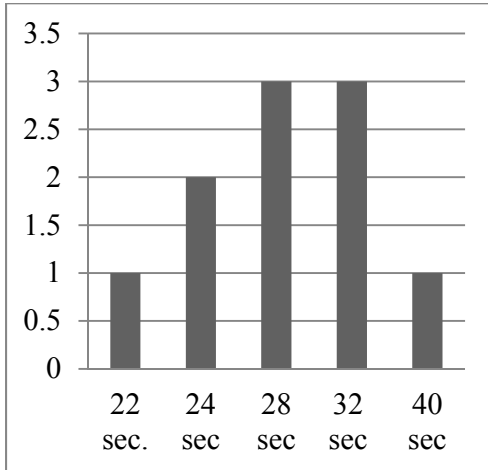
**Fig. 3** (standard values)

**Test 1. Group control**

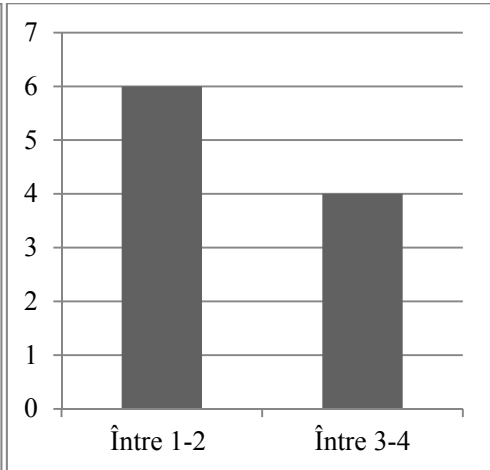
**Table no. 2.** The athletes control group tested in samples running (10x5m) and “Beep Test”

<b>Name and Surname</b>	<b>Date of birth</b>	<b>The height</b>	<b>Weight</b>	<b>10 x 5m “Transfer” Test</b>	<b>“Bip” Test</b>
C.C.	19.09.2003	150 cm	50 kg	20 sec	1,9”
H.M.	29.08.2003	147 cm	47 kg	32 sec.	2,8”
A.M.	09.12.2004	151 cm	52 kg	32 sec	2,28”
C. D.	10.11.2003	139 cm	49 kg	40 sec	3,12”
C.A.	31.03.2004	138 cm	46 kg	28 sec	3,19”
S.K.	1.09.2004	132 cm	45 kg	24 sec	2,34”
C.M.	4.10.2004	128 cm	43 kg	28 sec.	2,54”
M.C.	30.10.2004	145 cm	59 kg	28 sec	3,56”
A.I.	31.03.2003	156 cm	56 kg	24 sec	2,98”
B.L.	31.01.2004	144 cm	46 kg	32 sec	3,43”

### Graphical representation



**Fig. 4.** The “Transfer” test - the control group



**Fig. 5.** The “Beep” test - the control group

### Database interpretation of the group control

#### The „Transfer” test

Here the results are not so close that the *test group*. At the “Transfer” test we have six subjects who have obtained values between 28 seconds and 32 seconds (three with 3:28 and three with 32 seconds). These values represent 60% of the test subjects. One subject received values between 22 seconds and another obtained values of 40 seconds. The value of 24 seconds was obtained from two subjects.

At the “Beep Test” (fig. 4) values were between one second and two seconds, for a number of 6 subjects, while the four subjects, higher values of 3 to 4 seconds.

According to illustrated below, fig. 5 that reflect standard values, we can say that the first evaluation results are poor, each of the participants tested, each of the participants tested, achieved higher values than 11 seconds.

### Test 2. The Final Evaluation stage

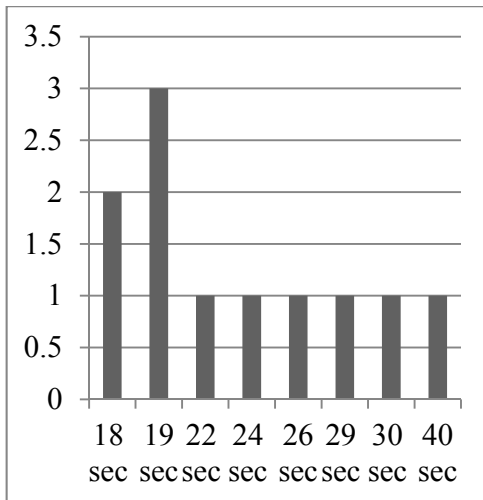
#### 2. Final evaluation - Target group



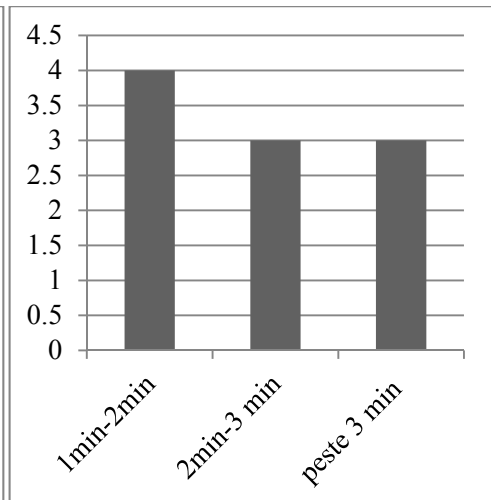
**Table no 3.** The athletes control group tested in samples running (10x5m) and “Beep Test”

Name and Surname	Date of birth	The height	Weight	10 x 5m “Transfer” Test	“Bip” Test
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R.M.	5.12. 2003	130 cm	27,10 kg	26 sec	3,6”
D. D.	2.11.2004	128 cm	40 kg	19 sec.	1,3”

**Graphical representation - target group**



**Fig. 6.** The “Transfer” test - control group



**Fig. 7.** The “Beep” test - control group

### The interpretation of the data “Transfer” test

At the second test, after applying speed drills, we noticed an improvement significance of values. Four subjects achieved values less than 20 seconds, respectively 18 and 19 seconds. And the six subjects received a value between 22 seconds and 40 seconds.

If we compare with the initial test we shows the following:

1. We improved speed by one second for 3 subjects;
2. With two seconds better for two subjects;
3. With three seconds for three subjects;
4. A single subject an increase in speed by 10 seconds, which makes us believe a genetic propensity;
5. We have one subject that has stalled. He got the same value for the initial test.

There is no standard test for this age. The rating is for the older standard, according to the table below.

<b>rating</b>	<b>men</b>	<b>women</b>
<b>very good</b>	< 4.80	< 5.30
<b>good</b>	4.80 - 5.09	5.30 - 5.59
<b>average</b>	5.10 - 5.29	5.60 - 5.89
<b>fair</b>	5.30 - 5.60	5.90 - 6.20
<b>poor</b>	> 5.60	> 6.20

### Interpretation of “Beep” test - *target group*

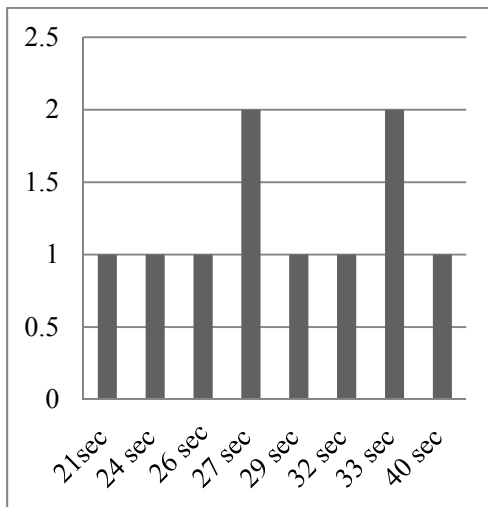
Four students obtained values ranging between one and two minutes, compared with eight at the first assessment. Six subjects were obtained values ranging from two minutes to three minutes. This demonstrates that this kind of exercises are beneficial, although it must be taken into consideration that in the training were used also the techniques from aikido. At this kind of testing, increasing the speed and can be conditioned by these technical elements.

**Test 2. The Control Group**

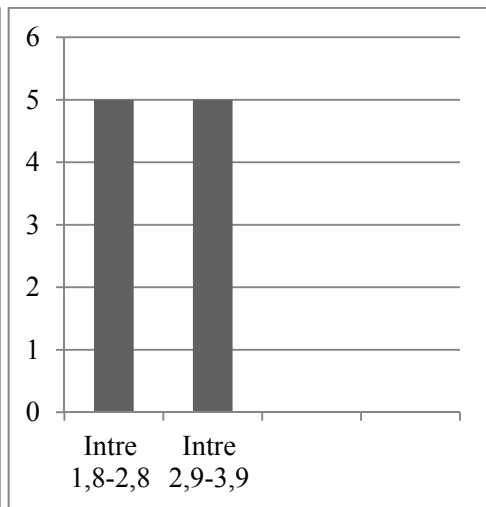
**Table no 4.** The athletes the control group tested in samples running (10x5m) and “Beep Test”

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**Graphical representation**



**Fig. 8.** “Transfer” test. The control group



**Fig. 9.** “Beep” test. The control group

## **Interpretation of the final test – *the group test***

### **„Transfer” Test**

Also here we have an improvement in the speed, but not so significant as to the target group. They did not perform specific exercises athletics speed, and they resumed training only basic aikido techniques.

We have the following comparative values:

1. Six subjects received an improvement in the speed of by one second;
2. One subject achieved an improvement in the speed with two seconds;
3. Three subjects achieved a speed stagnation, with the same values as the initial testing, 24, 32 and 40 seconds.

### **The „Beep” Test**

Here we have difference of level of hundredths of seconds, compared to the initial test.

1. Six subjects improved by a hundredth of a second earlier values;
2. A subject with two-hundredths;
3. A subject with three hundredths
4. Two subjects have stalled, achieving the same (2.8 sec).

## **Discussions**

Research in this branch didn't made in Romania and we have no information as elsewhere in the world about this kind of research. In this situation, our research is the first time, with no other benchmarks for comparison, we cannot detach than summary conclusions.

A positive factor is the improvement, not only the rate of displacement, but also but the execution speed and strength, and this can be noticed in the art of the quality and the ease with which subjects who participated in the research, could learn the techniques compared to those who were not under investigation.

## **Conclusion**

They are evident improvements in the two tests target group components.

By diversifying the instrumentalities used in the training program, the target group children recorded an a higher frequency training.

Training in aikido involves a repetition, agreement with other partner of some self-defense techniques. The application of these techniques cannot take place effectively, than if there is an exceptional physical and mental preparation.

Current Aikido removed these forms of physical training and gave special importance to art, producing a rupture in the preparation of martial arts.

The Yoshinkan Aikido Schools and Takemutsu Aikido School retained unaltered physical training, which is done in parallel with the technical. Starting from this aspect, the preservation of traditional forms, but from the perspective of teaching physical education and sports science, it has proposed a series of physical training techniques learned in athletics. These techniques may be available to any coach willing to make significant improvements in training aikido art.

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