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Study on the Method for Teaching Freestyle to Young People with Down Syndrome

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Abstract

The constant practice of swimming by young individuals with Down syndrome improves their balance and/or the functioning of their body parts, enhances body functions and neutralizes the damage caused by sedentary life that is so characteristic of this class of adolescents. The paper aims at taking advantage of the experience gathered in teaching the crawl technique to young athletes suffering from Down syndrome. The experiment has involved three young athletes, aged between 18 and 25, from Bucharest, who already knew how to float, glide and breathe in water. The research method applied for this study was observation. The study was carried out during eight months and included one lesson of 60 minutes/week. The evaluation of the level at which the swimming technique had been acquired by the subjects was completed every four weeks. It consisted in progression items proposed by the Special Olympics Quick Start Guide - Aquatics (2004), that we have adapted and modified. Through swimming practice, young individuals with Down syndrome have the opportunity to improve their physical condition, motor skills and self-esteem; they can also develop certain abilities that can help them integrate more easily in society.

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1. Introduction

Young people with Down syndrome practice various sports with a lot of pleasure. One of these sports is swimming which consists in floating, gliding and going ahead in the water with the help of the rhythmic and coordinated movements of the legs, arms, head and breathing which are specific for the swimming techniques: freestyle, breaststroke, backstroke, butterfly (Enciclopedia Educației Fizice și Sportului din România, 2002).

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Swimming can be practiced by the Down syndrome young people who have the doctor’s agreement. An important attention must be given to the athletes who have been diagnosed with Atlanto-Axial Instability. For these athletes, the Special Olympics rules forbid the participation “in butterfly events, individual medley events, diving stars or diving” (Special Olympics Summer Sports Rules, Aquatics [Swimming], 2012).

Regular attendance of swimming practice by young people with Down syndrome has the following effects: maintaining or/and improving of the tissues and the organs, the improvement of their functions, the prevention of the deteriorations which appear at these persons in connection with the sedentariness (Teodorescu, Bota and Stanescu, 2007). At the same time, swimming helps the mental disabled persons both to improve their metrical capacity and allow them to increase their potential so that they can participate in competitions.

In the teaching process of the swimming with young people with Down syndrome, there must be a correlation between the degree of the mental disability, ages, malformations and deficiencies they have (Teodorescu, Bota and Stanescu, 2007). It should be taken into account that these young people have a low level of attention. The learning process requires more time and more patience from the teacher.

1.1. Purpose of the study

The paper wants to underline our experience acquired during the teaching of swimming to young people with Down syndrome. The teaching process lasted for many years during which the athletes learnt the four swimming techniques, but this paper describes the steps involved in the teaching and learning of freestyle swimming.

1.2. Hypothesis

Our hypothesis is that young people with Down syndrome can learn to swim freestyle.

2. Subjects and methods

2.1. Subjects

Our study consisted of studying three athletes with Down syndrome – AM 25, AD 21, BC 18. They knew front and back floating, front and back gliding and aquatic breathing.

Our study was lasted eight months at the Miramar Complex, Bucharest. A lesson lasted 60 minutes. The athletes attended the swimming class a day a week.

2.2. Materials and methods

The research method that we used was observation. In the opinion of the Romanian specialists, freestyle is the first swimming technique which is learnt of the four techniques. Freestyle is swum during the lessons in connection with backstroke technique. But the methodology is different for young people with Down syndrome.

From our experience, after the learning and consolidation of the fundamental elements of the technique (front and back floating, front and back gliding and aquatic breathing), it is possible that a young people with Down syndrome to learn the swimming technique.

Although we tried to teach simultaneously freestyle and backstroke, the direct practical activities with these individuals determined us to give up this methodology and to direct out attention towards the teaching only a swimming technique – freestyle. When our athletes learnt this technique we went on with another one.

The learning process of freestyle was begun with the learning of the kicks. All the time, we had in our attention that our athletes practiced correct movements. After, we associated this kick movement with the breathing. And we went on with freestyle gliding with both arms up. We did not practice this exercise for long
time and other gliding exercises too because we observed that more practices with these types of exercises were followed by an incorrect swimming skill. Our athletes lifted their arms up instead of swimming with an arm up and an arm down. The gliding exercises were used especially determining our athletes to turn their head sideways for the specific breathing of the freestyle. The last exercise that we used was the crawl with the breathing of the third arms – freestyle technique.

So, the teaching and learning process is different in comparison with the teaching and learning process for the persons without any disability.

3. Findings and results

We used the items of progression given by the Special Olympics International (Special Olympics Quick Start Guide – Aquatics, 2004) so that we evaluated the level of the learning of the freestyle technique. We adapted and modified these items because we wanted to show better the level of learning freestyle by our athletes.

In the first step of the learning we evaluated the items: kick while holding onto pool side/gutter with assistance, kick while holding onto pool side/gutter without assistance, move forward using kickboard and flutter kick on front with assistance, move forward using kickboard and flutter kick on front without assistance (Special Olympics Quick Start Guide – Aquatics, 2004). We must mention that the assistance was a floating device which was tied surrounding the waist of the athletes.

In the next steps of the learning we added new items upon the items mentioned before: try to swim freestyle, perform freestyle for 15 meters and perform freestyle with rhythmic breathing for 25 meters.

During the period of training, the items were introduced in time in connection with the steps of the motric learning.

The evaluation was realized from four to four weeks. The progress was appreciated with the help of this scale: the sportsman can not perform the skill (0), the sportsman can perform rarely the skill (1) and the sportsman can perform frequently the skill required by the trainer (2).

3.1. The first step of the learning process

<table>
<thead>
<tr>
<th>Table 1. Sportsman AM</th>
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<tbody>
<tr>
<td>kick while holding onto pool side/gutter with assistance</td>
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<tr>
<td>kick while holding onto pool side/gutter without assistance</td>
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<tr>
<td>move forward using kickboard and flutter kick on front with assistance</td>
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<td>move forward using kickboard and flutter kick on front without assistance</td>
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<th>Table 2. Sportsman AD</th>
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<tr>
<td>kick while holding onto pool side/gutter with assistance</td>
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<td>kick while holding onto pool</td>
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side/gutter without assistance
move forward using kickboard and flutter kick on front with assistance
move forward using kickboard and flutter kick on front without assistance

From these data we could observe that the athletes with Down syndrome learnt specific skills of the freestyle in the different manners. The sportsman CB learnt quicker the skills taught. He was the first who did not use the floating device too. And the sportsman AM learnt quicker to swim in comparison with the sportsman AD who learnt the skills mentioned before with difficulty.

3.2. The next step of the learning process

Table 4. Sportsman AM

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<tr>
<td>try to swim freestyle</td>
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<td>2</td>
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<td>2</td>
<td>2</td>
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<tr>
<td>perform freestyle for 15 meters</td>
<td>1</td>
<td>1</td>
<td>2</td>
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<td>2</td>
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<tr>
<td>perform freestyle with rhythmic breathing for 25 meters</td>
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Table 5. Sportsman AD

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<tr>
<td>try to swim freestyle</td>
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<td>2</td>
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<tr>
<td>perform freestyle for 15 meters</td>
<td>0</td>
<td>1</td>
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<td>2</td>
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<tr>
<td>perform freestyle with rhythmic breathing for 25 meters</td>
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Table 6. Sportsman CB

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<tr>
<td>try to swim freestyle</td>
<td>2</td>
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In this step the rhythm of learning was different too. CB learnt very quicker to swim freestyle with rhythmic breathing. In comparison with him, AD did not succeed for learning freestyle with rhythmic breathing. He did not exhale in the water. From this cause, he could not inspire the air when he turned his head sideways. So, he raised his head out of the water.

4. Conclusions

Through swimming practice, young individuals with Down syndrome have the opportunity to improve their physical condition, motor skills and self-esteem. They can also acquire certain abilities that can help them integrate more easily in society.

After our study, we observed that athletes with Down syndrome learnt to swim in different manners. This process was in linked with their motor, physical and mental particularities.

The correct learning of the technique from the beginning was very important in our opinion. A mistake which was repeated several required a lot of time to delete. For this cause, it was better that the swimming technique should be learnt correctly.

The method of the swimming teaching for young people with Down syndrome was different than when it was applied to the persons without any disability. Our experience showed that two swimming technique could not be learnt simultaneously. Every swimming technique would be learnt one after the other. The time which would be used was different from one sportsman to another.

The number of the exercises which were used was reduced. During the practical lessons we observed that no all of the exercises used with athletes without any disability could be applied in the learning process of the young individuals with Down syndrome. At the beginning of the learning process we used the gliding exercises. During the lessons we observed that these exercises had a bad effect. So, we avoided them.

In spite of all, these young individuals with Down syndrome could learn to swim freestyle. In time, they could participate in swimming competitions. But they should also try to learn other freestyle skills besides those which have been already described.

References