COMPARATIVE STUDY REGARDING THE STRATEGIES OF LEARNING AND IMPROVING ALPINE SKIING AT CHILDREN AND JUNIORS

F. Benedek¹  E. Rață²

Abstract: In this paper I tried to prove that within the Sportive School Club Toplița it is been used a much effective method which is better structured than at the Borsec Skiing Association. At the same time, at the club from Toplița there is a specialist coach and appropriate equipment, while at the Borsec Skiing Association there is no specialist coach or appropriate equipment. In order to show the importance of equipment and specialist coach’s role I used two tests. During the first test I clocked each tested subject from the both clubs in four competitions, each competition having two parts. During the second test I used coaches’ opinions about the athletes’ evolution at trainings and at competitions.

Finally, after centralizing the obtained data, obtained showed that learning and development strategies of athletes and professional coach are important preparation.

Key words: comparative study, alpine skiing, strategies, child.

1. Introduction

Alpine skiing is practiced by many categories of people, especially as a mean of recovery, health strengthening, to harden the body and body recovery. Alpine skiing is practiced by performance athletes who use the best equipments, benefit of optimal conditions to practice intensive the alpine skiing, in order to reach high performances, evidenced by good results at contests and specific tests [1], [3].

Methodology of practicing alpine skiing as performance sport is particular to competitions’ tests. I elaborated this study because we want to demonstrate the importance of a coach teaching strategy to a qualified instructor to learning and perfecting the technical skiers.

In this regard, over time, stating that two traditional schools, namely Austrian School and the French had numerous clashes on the subject of rational and efficient methodology of alpine ski instruction. These schools created the impression of the maintenance of an artificial conflict, which finally generated an improvement of the technical-methodical arsenal of the alpine skiing.

The approach of learning the base technique of alpine skiing delimits the
transfer of technical processes in various conditions, imposed by the marked trails, competition or training type.

For an effective awareness of these within some learning experiences, organized in this regard, it is considered to be appropriate identification of basic aspects of the competition techniques and of motor behavior under a marked trail. Initiation in the base technique of competition tests has as main objective the technical adaptation at imposed trial, planning actions, anticipation and pre-forming of detours, so as to be within the optimal trail of a race. At the advanced level, these specific activities have as a starting point Cristiana through rotation, for giant slalom test and for slalom test. In alpine skiing, giant slalom represents the most competitive and difficult test. Methodical sequence initially comprises an approach of specific technique taking into account test’s characteristics and the action of inferior tern in cornering approach [2], [4, 5].

2. Material and Method

2.1. Research Hypothesis

It is assumed that learning and development strategies of a qualified coach are more effective than those of an instructor employed by a sports association.

Are equipment, specialist coach and training conditions important in performance alpine skiing?

The athletes are from two different sportive groups, precisely from Toplița Sportive School Club and from Borsec Skiing Association.

Sportive School Club from Toplița is a school unit with additional sports program, established through Ministry of Education, Research, Youth and Sports.

This type of education was established for children and young people who have skills in sports, alpine skiing in this case. Within this educational institution the sports athletes are registered in a sportive register, which means that they are legitimated at the appropriate age of sport, belonging to the National Sports Federation of Alpine Skiing.

There are trained coaches who are specialist in the area of alpine skiing, coaches who are responsible for the quality of work and for achieving the proposed objectives.

Borsec Skiing Association, is a non-profit organization, being recorded since 2004.

The nine founding members began their activity wanting to teach children the technique of skiing.

Until 2009 in Borsec was no ski slope, so this sport was practiced by the association at a distance of 5 km, on the Făget Mountain. Children were transported to this destination with SUVs. There was no beaten snow machine, so the ski slope was set manually, was trodden with skis.

Since 2010 it was arranged a ski complex with three slopes.

Association and children have free access on these slopes for training two hours, three days a week, as well as organizing ski competitions.

Association does not have founds for sportive equipments, these being bought by children’s parents.

It does not have specialist coaches in alpine skiing, the trainings being held by the association founding members, mostly ex athletes from alpine skiing, this thing being done only in their free time, for pleasure, each of them having a job outside this area.

Above we presented two organizations in alpine skiing totally different, still trying to prove that learning and development strategies and specialized coach and training are important conditions for alpine skiing performance.
2.2. Research Aim

In this paper I tried to prove that within Sportive School Club Toplița they use a more efficient method and better structured than those from Borsec Skiing Association.

2.3. Research Tasks

In order to solve the proposed objectives, the workloads have as a base the elements from theory and methodology of performance alpine skiing that should take part at solving the following issues:

- Knowing and investigation of the place where trainings and competitions were held, in order to establish and fix its particularities.
- Establishing the most effective means used in the study and the interdependence of the basic technique of alpine skiing performance;
- Establishing the ways and means for performance in alpine skiing in relation to subjects characteristics presented in this study;
- Specification of particularities of learning and improvement performance alpine skiing according to age, sex, degree of physical training of this research subjects;
- Specification of elements from training activity in the study.
- The establishment features practitioners of training children and junior alpine ski and fixing means differential by age, sex and level of education.

In this research I used two tests:

1. In the first test I clocked each tested subject in this research, within a competition. At four competitions I clocked each subject in the two parts of each competition. At the four competition participated 11 subjects from Borsec Skiing Association and also 11 subjects from Toplița Sportive Club, I chose the participants in such a way as to be in the same category of age and sex. Therefore it participated (Tab.1 Number of participant subjects)

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Girls (no.)</th>
<th>Boys (no.)</th>
<th>Borssec</th>
<th>Toplița</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2006</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2003-2004</td>
<td>4</td>
<td>4</td>
<td>2(G)2(B)</td>
<td>2(G)-2(B)</td>
</tr>
<tr>
<td>1995-1998</td>
<td>4</td>
<td>4</td>
<td>2(G)2(B)</td>
<td>2(G)-2(B)</td>
</tr>
<tr>
<td>1997-1996</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

After I clocked the subjects at the four contests I compared participants’ evolution from the two groups.

2. In the second test subjects were recorded results of the two groups on the development of athletes in training and competitions as coach and instructor data. Each participant was noted from 1 to 10 after which they compared notes obtained.

The study took place in Borsec locality, Harghita county, on ski slope “Speranța”, that has the following characteristics of difficulty:
Speranța ski slope has the following characteristics

<table>
<thead>
<tr>
<th>Slopes characteristics</th>
<th>Speranța</th>
<th>Prichindel</th>
<th>Ținut</th>
<th>Insorită</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty</td>
<td>medium</td>
<td>easy</td>
<td>easy</td>
<td>easy</td>
</tr>
<tr>
<td>Length (m)</td>
<td>680</td>
<td>814</td>
<td>726</td>
<td>726</td>
</tr>
<tr>
<td>Width (m)</td>
<td>57</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Level difficulty (m)</td>
<td>142</td>
<td>139</td>
<td>141</td>
<td>141</td>
</tr>
<tr>
<td>Medium inclination (%)</td>
<td>21</td>
<td>17</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Maximal inclination (%)</td>
<td>32</td>
<td>30</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

Trainings and competitions on the ski slope began on 12 December 2014 and ended on 15 March 2015.

In this period there were organized the following ski competitions: “In Memoriam Lorincz Pal Cup”; “Gheorgheni Cup”; “Speranța Cup”; “Skiing Association Cup” – Gheorgheni Cup” and “Borviz Cup”. In this period there were made a lots of trainings, organized by Toplița Sportive School Club there were trainings organized by Borsec Skiing Association.

2.4. Results and Discussions

In the following table (Tab. 3) it is represented the general average after competition “In Memoriam Lorincz Pal Cup”. I underlined the time difference between the two clubs. At this competition the athletes were timed in the two parts of the competition, then I gathered the obtained time and I calculated the general average for the two clubs.

The overall average of Borsec Skiing Association is 13.27 minutes and Sports Club Toplița overall average is 12.38 minutes. The time difference is 0.89 min.

<table>
<thead>
<tr>
<th>Recorded time (UM=min.)</th>
<th>Borsec</th>
<th>Toplița</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.27</td>
<td>12.38</td>
<td>0.89</td>
<td></td>
</tr>
</tbody>
</table>

Table 3

General average recorded after competition “In Memoriam Lorincz Pal Cup”

In chart 1 highlighted the difference in time between the two clubs surveyed by CUP ”In Memoriam Lorincz Pal. It is noted that the overall average Borsec Skiing Association is higher than the Sports Club Toplița.
In the following table (Tab. 4) it is presented the general average recorded after competition “Gheorgheni Cup”. General average at Borsec Skiing Association is 15.77 minutes and at Topliţa Sportive Club 12.27 minutes. Time difference is 3.5 minutes.

<table>
<thead>
<tr>
<th>Recorded time (UM=min.)</th>
<th>Borsec</th>
<th>Topliţa</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15,77</td>
<td>12,27</td>
<td>3,5</td>
</tr>
</tbody>
</table>

Table 4
General average recorded after competition “Gheorgheni Cup”

In chart 2 highlighted the difference between the two groups surveyed, it was 3.5 minutes.

In the following table (Tab. 5) it is represented the general average recorded after competition “Speranta Cup”. General average at Borsec Skiing Association is 17.30 and at Topliţa Sportive Club is 15.37. Time difference is 1.93.

<table>
<thead>
<tr>
<th>Recorded time (UM=min.)</th>
<th>Borsec</th>
<th>Topliţa</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17,30</td>
<td>15,37</td>
<td>1,93</td>
</tr>
</tbody>
</table>

Table 5
General average recorded after competition “Speranta Cup”

Chart 3 highlighted the difference in time between Borsec Skiing Association and the Sports Club Topliţa after “Speranta Cup”.

Chart 3. General average recorded after competition “Speranta Cup”
In the following table (Tab.6) is presented the general average recorded after competition “Borsec Cup”. General average at Borsec Skiing Association is 14.30 minutes and at Toplița Sportive Club is 13.38 minutes. Time difference is 0.92 minutes.

### Table 6

**General average recorded after the competition**

<table>
<thead>
<tr>
<th></th>
<th>Borsec</th>
<th>Toplița</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded time</td>
<td>14.30</td>
<td>13.38</td>
<td>0.92</td>
</tr>
</tbody>
</table>

In chart no. 4 - general average recorded after competition “Borsec Cup”.

In centralizing table no. 7 I underlined the time differences between the two groups. At subjects from Borsec Skiing Association the recorded time at the four competitions was 59.15 minutes and at Toplița Sportive Club was 52.14 minutes. The time difference between the two clubs is 7.88 minutes. It is obviously that the athletes from Sportive School Club Toplița have a better time than athletes from Borsec Skiing Association, who have a weaker recorded time, a total of 7.88 minutes.

### Table 7

**Differences of time between the two groups**

<table>
<thead>
<tr>
<th></th>
<th>Borsec</th>
<th>Toplița</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded time</td>
<td>13,27</td>
<td>12,38</td>
<td>0.89</td>
</tr>
<tr>
<td>(UM=min.)</td>
<td>15,77</td>
<td>12,27</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>17,30</td>
<td>15,37</td>
<td>1.93</td>
</tr>
<tr>
<td></td>
<td>14,30</td>
<td>13,38</td>
<td>0.92</td>
</tr>
<tr>
<td>Total</td>
<td>59,15</td>
<td>52,14</td>
<td>7.88</td>
</tr>
</tbody>
</table>

In chart 5 have been highlighted time differences between the two groups.
3. Results’ Evolution at Subjects after Final Evaluation

For testing coaches’ opinion about evolution of performance sports athletes within competitions there were given grades, according to the descent technique of athletes. The assigned grades, based on qualifications, after learning the exercises:
1 - Insufficient
2 - Sufficient
3 - Good
4 – Very good
5 – Excellent

Media group for each sample is as follows: Borsec obtained the following result: 3.1 points and 3.6 Toplița those points. The difference between the two groups is 0.5 points. Centralizing (Tab.8 final results obtained at the end of evaluation) after the final results obtained at the end of evaluation.

Table 8

| Obtained results | Borsec 3,1 points | Toplița 3,6 points | Difference 0,5 point |

In the following graph there are presented the final results obtained at the end of evaluation:

Chart no. 6. Final results obtained at the end of evaluation
4. Conclusions

Following the course of the study, issued new hypothesis was confirmed, namely that they have strategies for learning and performance improvement alpine ski athletes aged 6 to 18 years. He developed this paper to find out how important learning and development strategy of a qualified coach to a coach from a certain association.

It turned out that an efficient strategy both in terms of learning and improving as a coach specialized in the field and the conditions and the time of preparation, are really important alpine skiing performance.

Strategic method used by the School Sports Club Toplița is more effective performance in alpine skiing evidenced values recorded in the four contests held.

References