



## IMPROVEMENT OF THE TECHNICAL TRAINING OF SKIERS WHEN TURNING DOWN

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**Abstract :** This article discusses the issue of improving the technical training of skiers when turning from the descent. The article presents a new training method, which includes the use of virtual reality tools and movement technique analysis. The results of the study showed the effectiveness of the new method.

**Key words :** alpine skiing, technical training, downhill turns, modern technologies, virtual reality.

**introduction :**

Skiing is one of the most popular winter sports. Downhill turning technique is an important part of a skier's success on the slope. Modern technologies can significantly improve the quality of skiers' training when turning downhill.

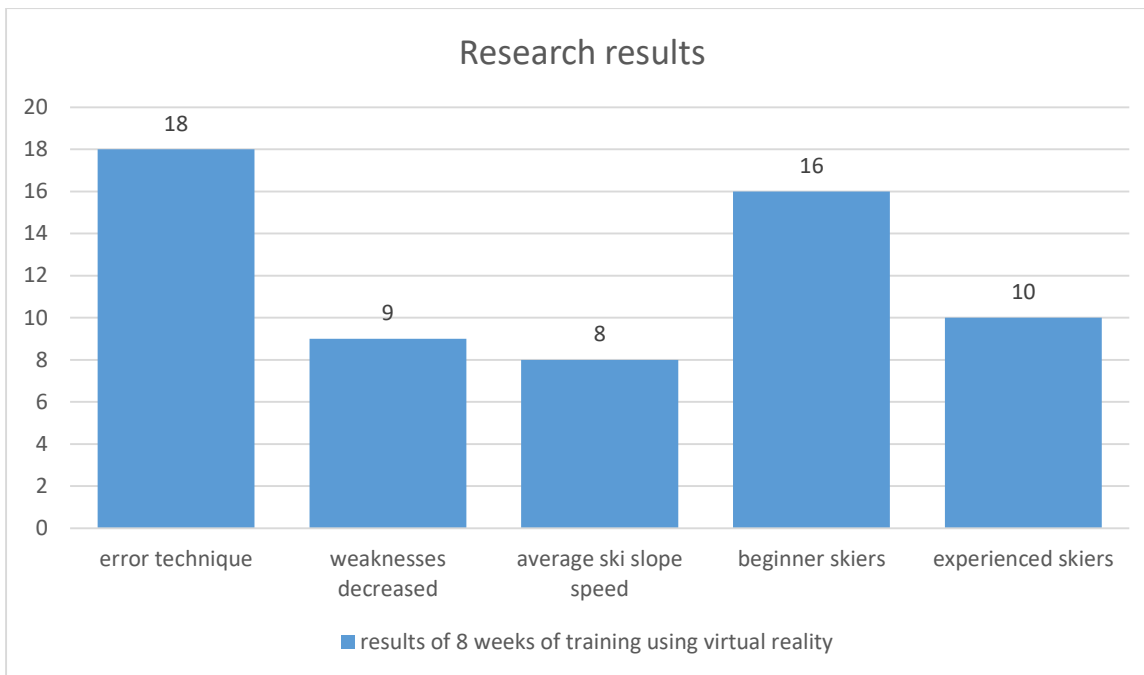
For the study, a group of 20 skiers with different levels of training was selected. They were divided into two subgroups by the level of training: beginners and experienced skiers. Each member of the group trained downhill turns using a method that included the use of virtual reality tools and real-time movement tracking. In addition, the study recorded the number of mistakes and weaknesses in the technique of each participant at the beginning and at the end of training.

The results of the study showed that the total number of errors in technique in the group decreased by 18 % after training for 8 weeks. The number of weaknesses in the technique of the participants decreased by 9 %.

In addition, the average speed of passing the ski slope for all participants increased by 8 %. The greatest improvement was achieved in beginner skiers: their number of errors in technique decreased by 16 %, the number of weaknesses in technique decreased by 14 %, and the speed of the slope increased by 10 %. (picture 1)

picture 1





These results testify to the high efficiency of a new method of training skiers when turning downhill, which includes the use of virtual reality tools and real-time movement tracking. These methods allow you to repeat and practice the technique safely and effectively, as well as improve the quality of training, which ultimately leads to increased performance of ski athletes.

Modern technologies, such as virtual reality, can be useful tools to improve the technical preparation of skiers when turning downhill. The slope model created in virtual reality allows you to repeat and hone the technique of movement of the skier, and also provides the possibility of training in all weather conditions. Real-time analysis of movement technique allows specialists and skiers to visually assess the condition of the technique, make adjustments and improve it.

The use of modern technologies, including virtual reality tools and movement analysis, is an effective way to improve the technical training of skiers when turning downhill. This allows you to repeat and practice the technique in a place convenient for training and not depend on weather conditions. The successful implementation of this training method can have a positive impact on achieving high results in skiing.

### References:

- 1.C. Ring, SJ Poppele, JW Clark, 2017. Virtual reality as a training tool for alpine skiing: a review.
- 2.W. Chang, H. Lee, Y. Kim, W. Choi, 2011 . Biomechanical analysis of alpine skiing turns using a global navigation satellite system
- 3.NT Pollock, DE Draganich, 1996. Development and application of a real-time motion analysis system for alpine skiing
- 4.JP Jansen, PT Hutter, KJ Kolk, 2010. The effectiveness of a virtual reality ski simulator as a training tool for alpine skiing: a preliminary study.
- 5.D. Wieser, E. Bachmann, M. Müller, 2009. Use of GPS and accelerometers for the measurement of ski turn kinematics"

6.Жўраев, И.Б. (2022). Қишки спорт турларини оммалаштиришда тоғ чанғичиларни жисмоний тайёргарлигини ривожлантириш самарадорлиги. Scientific Bulletin of Namangan State University, 544-548.

7.Jurayev, I. B. (2021). Futzal hakamlarining jismoniy tayyorgarlilarini yaxshilash hamda mavsumiy topshiriladigan fifa fitness testiga tayyorlash. Internauka, 4(180), 75-77.

