

# Contribution of mental training to the improvement of sports performance

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## Purpose

To assess the influence of mental training on the increase in focused attention and manual response in alpine skiing athletes.

## Sample

48 teenage athletes of ski groups within school sports clubs separated in two equally sized groups: experimental and control group.

## Intervention in experimental group



Several drills within the physical training program.  
(specific proprioceptive and kinaesthetic information processing is needed to (re-)combine complex mental images)



Mental training program consists of considering:

1. arm positions
2. timing of arm swinging
3. pole-planting



## Results

To determine the hand-eye coordination capacity a device called Computer-assisted system for assessment in transport and labour psychology was used.

		Posttest (M ± SD)
<b>VP – perception speed</b> = number of omissions	control	10.00 ± 6.04
	experimental	4.04 ± 3.85
<b>EP – perception accuracy</b> = number of errors	control	18.54 ± 9.15
	experimental	9.83 ± 4.40
<b>EX – focused attention</b> = correct answers/150+wrong answers	control	0.86 ± 0.08
	experimental	0.93 ± 0.06

t-Test for dependent samples of Pre- & Posttest indicates statistically significant modification (VP & EX:  $p < 0.001$ ; EP:  $p = 0.001$ )

## Conclusion

The intervention, including mental training, leads to higher modification in the hand-eye coordination capacity of alpine skiers.