

Bases of Sports Visual Training: A Review

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Abstract

The vision and sports are an increasingly important topic among optometrists. Article aims to highlight the practices that are being carried out within the scope of sports visual training through a literature review that aims to be an initiation base for optometrists who want to start their activity in this area.

Sports visual training is an area that has been growing and where its results have been proven, being an important tool for an optometry professional. For acting in this area, it is important to keep in mind the bases of action and it is in this area that we will focus throughout this article.

Keywords: Sport visual training; Sport skills; Visual abilities; Optometrist

Introduction

With the sport visual training it is intended to improve the visual abilities of athletes and consequently their sports performance [1].

In general terms, "an improved vision" can raise income levels during the sports process, in any case it is necessary to bear in mind what this vision is, since depending on the sport so the skills needed for its performance to the highest Level.

Visual training has been a recurring practice in the United States of America and recently it has been proven through studies of its effectiveness. Recent studies carried out with strobe glasses have enabled improvements in the visual performance of athletes [2,3].

It is known that athletes need a good vision to have good sports performances, it is known that many athletes perform sports visual training on their own initiative in order to increase their sports performance [1].

According to a study carried out on gymnasts, it was found that the increase in skills in saccadic eye movements can have implications for dynamic balance, also demonstrating the importance that coaches have in this type of tasks and how their collaboration can be crucial for the increase performance at this level. The trainer must work in harmony with the optometrist and the training plans must be synchronized with the visual therapy exercises [4].

Visual Training Objectives

The optometrist who wants to go through this area can choose two paths; one of them is what transforms visual therapy and gives it a

To know and be aware of what is done in terms of training the sports optometrist must be part of the technical team, at a level

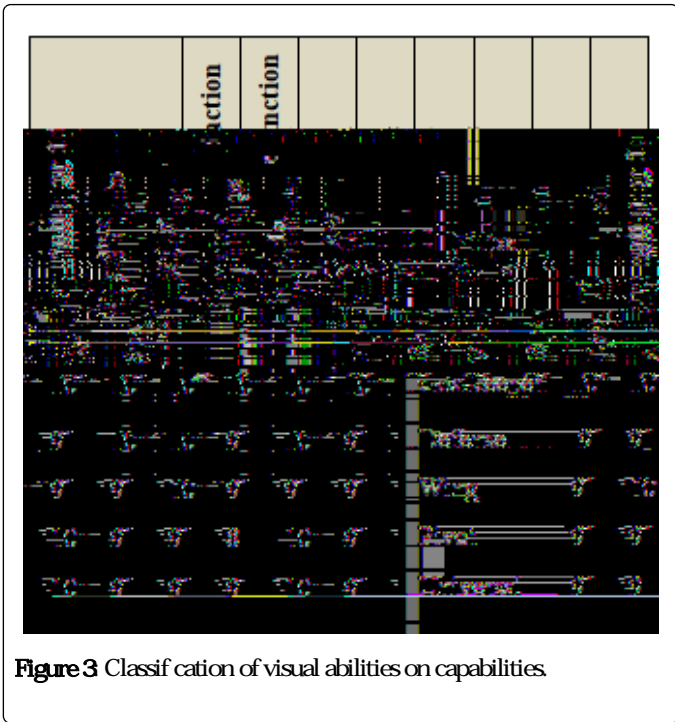


Figure 3 Classification of visual abilities on capabilities

In this table of Figure 3, the vision specialist and the coach define the importance of each visual ability, ranking it from 0 to 10 in relation to each player role. To train these skills according to the needs of the players

To train these skills we can do it in different ways and even integrate them all (Figure 4).

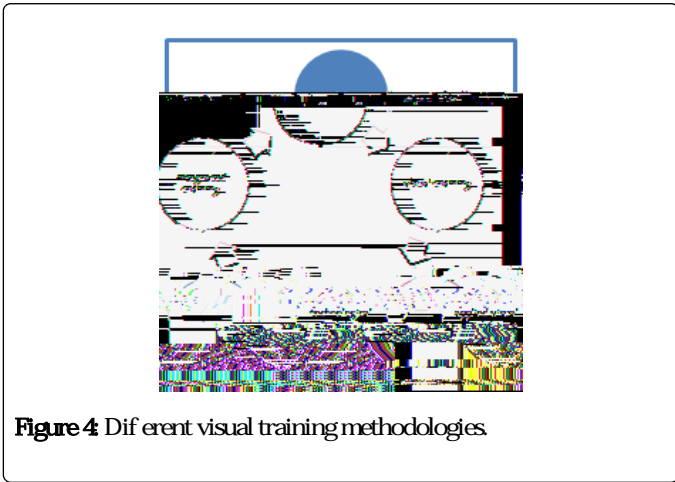


Figure 4 Different visual training methodologies

The different training components make a better athlete. Motor skills training, standard visual training, athletes applied visual training, new applied technologies, and integrated visual training with their sport training unit.

The stages of sports visual training

Visual training Based on the results obtained in the optometric examination, perception, visual information processing and athlete's needs, a personalized exercise program is designed to develop and maximize the visual skills and their integration with the athlete. rest of

the senses. In this way we can change the way of using the visual system and as a result improve the overall performance of the athlete.

Applied visual training In this type of training are applied instruments and techniques that can approach the specific training of each sport, promoting the speed of reaction and coordination, with special emphasis on Proprioceptivity. In this visual training can be used computerized programs or electronic platforms like COI Sports (Figure 5).

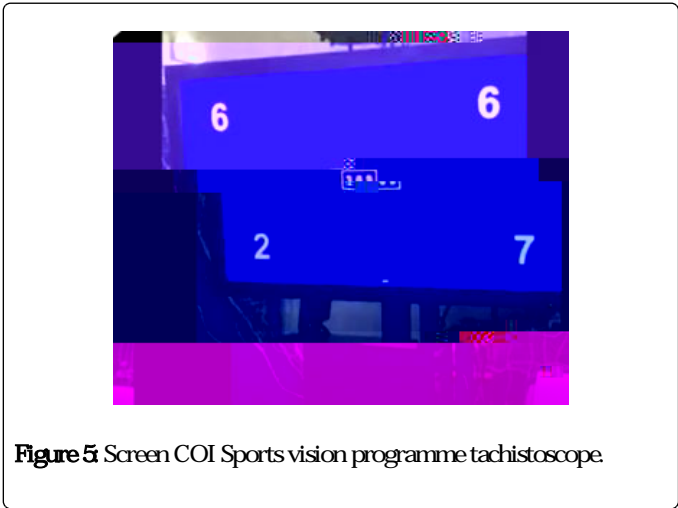


Figure 5 Screen COI Sports vision programme tachistoscope

Technological training application of instruments such as eye tracking, stroboscopy and stabilometric plates (Figure 6), to improve the athlete's visual performance and control his own training

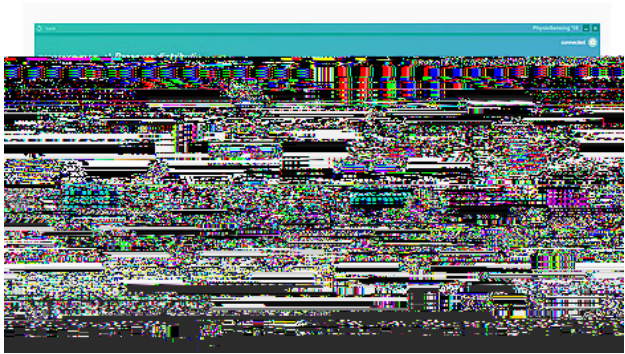


Figure 6

toward the target, a basic body positioning ability that is responsible for many of the sports errors such as, Rugby, Football or Basketball.

Exercise 2 Use different ball sizes marked with different numbers and symbols, we ask the athlete to receive the ball that identifies it, by its letter or symbol, as soon as possible before reaching his hands (coordination and accommodation training).



Figure 7: Balls with letters for identification.