Interactive object to enhance the process of teaching-learning-training of tactics in soccer: the case of Sphero™

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This study aimed to experiment the usage of an interactive object to enhance tactical external imagery, players’ tactical knowledge, and in-game tactical performance. A quasi-experimental pre- post treatment was used to compare 245 rates provided by 14 players of an Under-14 amateur soccer team in Canada. A teleguided object called Sphero™ was adapted to the context of training and was used to teach tactics. Understanding and execution of pre-game directives were evaluated through self-evaluation. Results were used to compare the tactical performance of the team after five weeks of specific training. The coach also evaluated each player according to each directive and has provided a subjective evaluation of the two games. The final scores were also taken in account. Descriptive analysis was performed to measure the means and standard deviations, and the Wilcoxon test (z) was used for paired comparison. A significance level of p <0.05 was adopted. Significant difference has been found in the execution of individual directives (z = -2,070; p = 0,038) and between coach’s rates of the execution of three directives out of four (z = -2,701; p = 0,007, z = -3,126; p = 0,002, z = -2,124; p = 0,034). Rates from both players and coach indicate both players and coach perceived they improved in the execution of tactical directives. The second game was won by a high score. Integrating imagery to training using Sphero™ has therefore allowed to improved individual and collective tactical performance through an interactive teaching-learning-training process.