

## Experimental Study on the Effectiveness of Extracurricular Football Training for Improving Primary Students Physical Fitness

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**Abstract :** Introduction: The purpose of this study is to examine the effectiveness of after-school football training in improving the physical fitness of primary school students, so as to provide corresponding suggestions for carrying out after-school football training in primary schools. Methods: A total of 72 students from the experimental primary school of Mouping district, Yantai city, Shandong province, participated in this experiment. The experiment was conducted for two semesters. During the experiment period, the experimental group conducted one-hour football training after school from Monday to Thursday afternoon every week, and two hours of football training on Saturday morning every week. The control group conducted sports teaching and extracurricular activities as usual without other intervention. Before and after the experiment, both the experimental group and the control group underwent physical fitness tests according to the physical fitness test standards of Chinese students, including lung capacity, 50-meter run, one-minute skipping rope, sitting forward flexor, and one-minute sit-ups. The test results were all converted to the 100-point system according to the scoring standards. Results: (1) Before the experiment, there was no significant difference between the experimental group and the control group in various physical fitness indicators ( $p > 0.05$ ). (2) After the experiment, the lung capacity score ( $T = 3.108$ ,  $p < 0.05$ ), the 50-meter run score ( $T = 6.593$ ,  $p < 0.05$ ), the skipping score ( $T = 9.227$ ,  $p < 0.05$ ), the sitting forward flexor score ( $T = 3.742$ ,  $p < 0.05$ ), and the sit-up score ( $T = 5.210$ ,  $p < 0.05$ ) of the experimental group were significantly higher than that of the control group. Conclusion: This study shows that the physical fitness of primary school students can be improved by football training in their spare time. It is suggested to carry out after-school football training activities in primary schools so as to effectively improve the physical fitness of pupils.

**Keywords :** after-school football training, physical fitness, primary school students, school sports

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