

Effects of high foot standing tables and chairs on physical activities of senior elementary school students: A case study of Zhongxiao elementary school in Changhua County

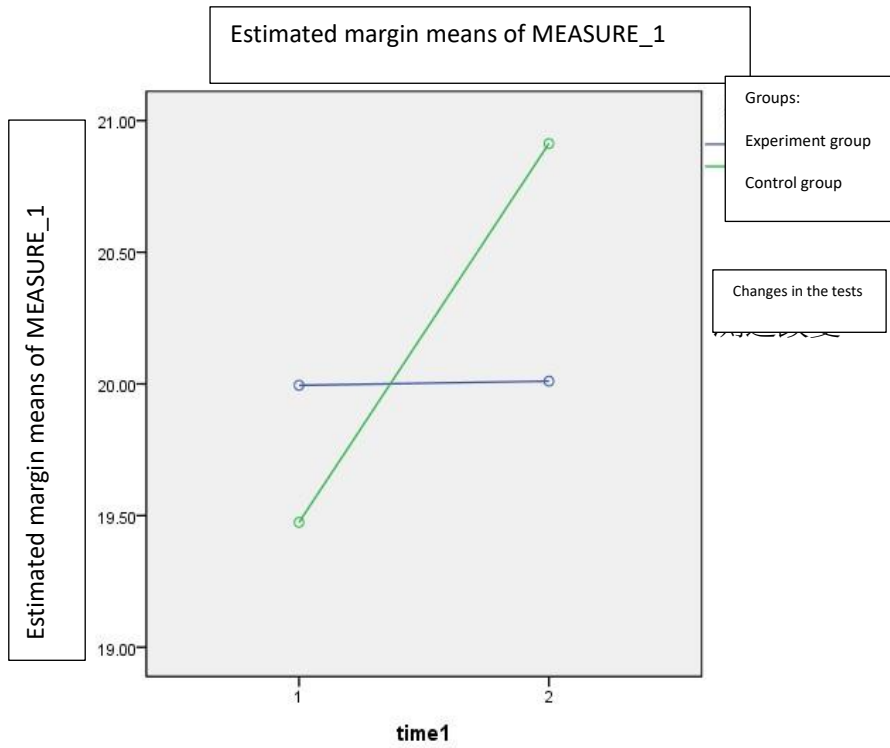
Table 1 Comparison of background variables between the two groups

Variables (unit)	Experiment group	Control group	p
	M(SD)	M(SD)	
Gender	Male=11 , Female=9	Male=9 , Female=8	0.90
Age (yr)	11(0.0)	11(0.0)	1.00
Height (m)	1.47(0.09)	1.43(0.05)	0.12
Weight (kg)	43.65(13.48)	39.88(7.07)	0.29
BMI (kg/m ²)	19.99(4.50)	19.47(3.06)	0.69
Rest (hour)	3.71(1.34)	3.67(0.61)	0.89
Mild activity (hours)	9.46(1.12)	9.14(0.86)	0.34
Moderate-intensity activity (hours)	1.87(0.68)	1.98(0.49)	0.59
Sleep (hours)	7.44(0.54)	7.46(0.66)	0.73

p < 0.05 represents a significant difference between groups

Table 2 Dependent sample t-test and two-way mixed-design analysis of variance of the two groups before and after the test

Item (Unit)	Experiment group		Control group		group*pre-post test p
	Pre-test M(SD)	Post-test M(SD) [p]	Pre-test M(SD)	Post-test M(SD) [p]	
BMI (kg/m ²)	19.99(4.50)	20.01(4.61) [0.97]	19.30(3.06)	20.91(3.91) [0.02]*	0.04*
Rest (hour)	3.71(1.34)	3.15(0.78) [0.05]*	3.67(0.61)	3.61(0.81) [0.75]	0.13
Mild activity (hour)	9.46(1.12)	9.49(0.69) [0.81]	9.13(0.89)	9.00(0.67) [0.54]	0.55
Moderate-intense activity (hour)	1.84(0.69)	2.20(0.63) [0.03]*	1.98(0.49)	2.13(0.70) [0.38]	0.40
Sleep (hours)	7.44(0.54)	6.91(1.23) [0.10]	7.46(0.66)	7.03(1.20) [0.15]	0.47



Note: * $p < .05$

Results: After a 10-week intervention in the second semester of 109, this study found that the intervention of standing tables and chairs had a significant impact on the reduction of obesity among senior elementary school students; It also showed a preliminary impact in reducing daily static time and increasing daily medium and high-intensity activity time.

Figure 1. Pre- and Post-BMI of the two groups

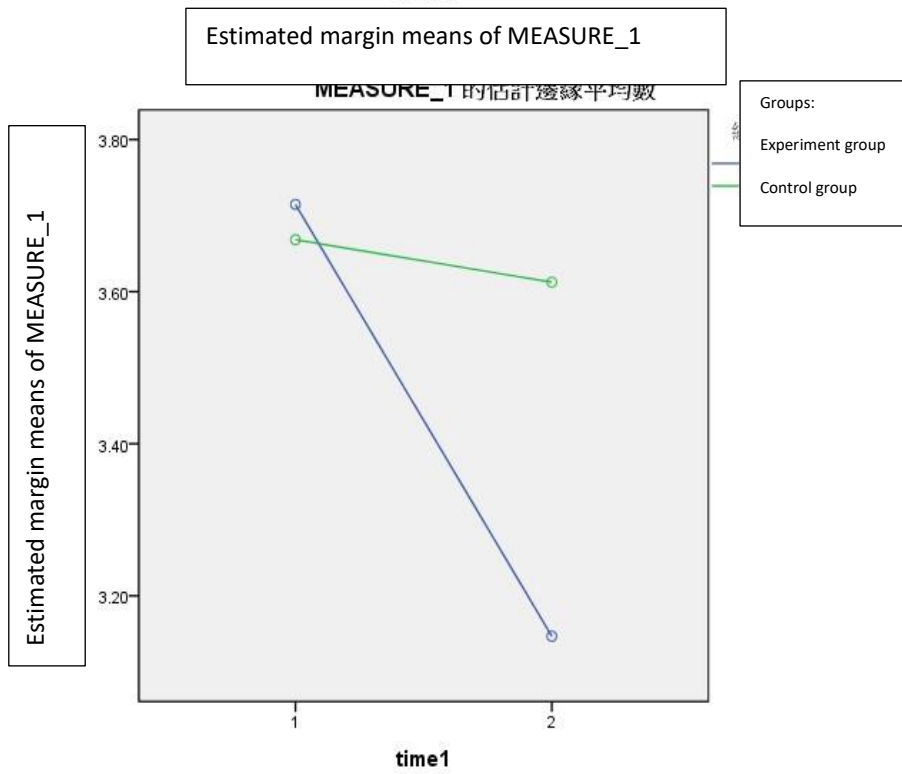


Figure 2: Pre-post test changes in rest time between the two groups

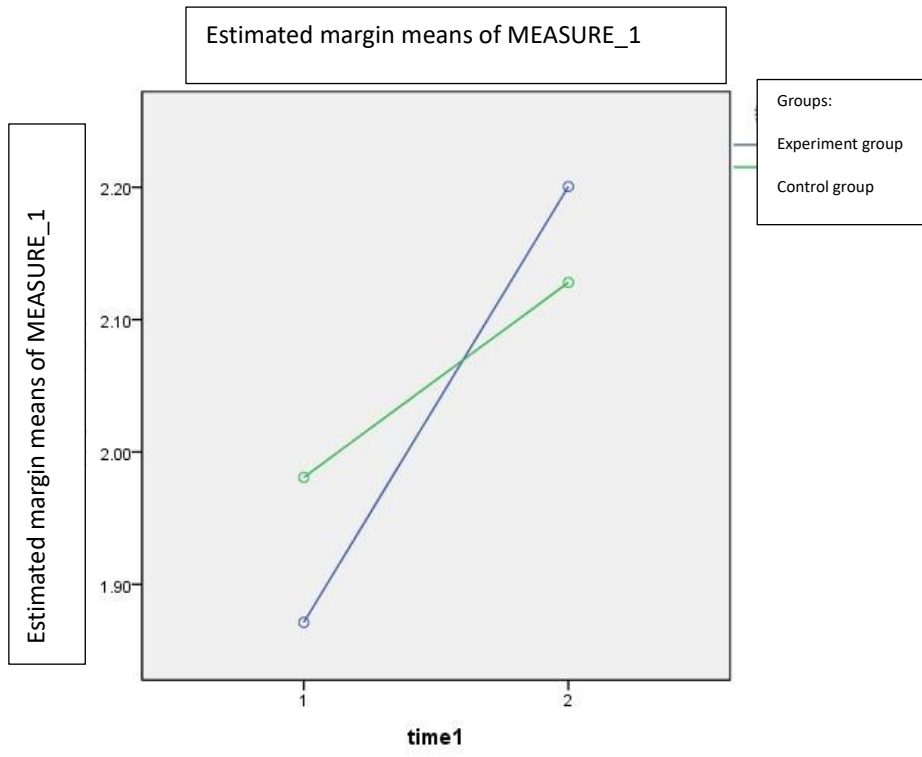


Figure 3. Pre-post test changes in moderate-intense activity between the two groups