

Background

- Periodization is the planning of exercises, how many sets, reps, and total volume will be done within a program
- Traditional (linear) periodization involves planning the pre-season, season, and post-season training
- Block periodization works on one aspect for 2-4 weeks and then moves on to another training aspect
- Concurrent works on strength, speed, and power at the same time.
- All are used to elicit adaptations for sport

Purpose

This study aimed to examine what periodization method induced the best results in strength, power, and speed within the Hs sector.

Hypothesis

H₁ -Both groups will exhibit an increase in strength

H₂ -The inclusion of Block training specifically eccentric and isometric blocks will increase strength when compared to just linear periodization

Methods

- n=71 participants
- G2 performed a traditional program with the inclusion of a higher rep range for 16 weeks
- G3 performed a block periodization for 4-week blocks over 16 weeks.
- All data recorded by the Head Strength Coach

Results

Groups	P-value	t-value	Mean Diff
G1_G2 O_Bench	.687	-0.41	6.81lb
G1_G3 O_Bench	.309	-1.04	8.86lb
G2_G3 O_Bench	.958	-0.05	0.47lb
G1_G2 P_Bench	.096	-1.75	19lb
G1_G3 P_Bench	.045*	-2.15	23.21
G2_G3 P_Bench	.402	-0.85	7.52lb

Groups	P-value	t-value	Mean Diff
G1_G2 O_Squat	.202	-1.32	22.15
G1_G3 O_Squat	.021*	-2.49	39.55
G2_G3 O_Squat	.082	-1.80	16.63
G1_G2 P_Squat	.001*	-3.74	19lb
G1_G3 P_Squat	.002*	-3.62	60.95
G2_G3 P_Squat	.678	-0.42	4.53lb

Groups	P-value	F-value	Mean Diff
G1_G2_G3 O_Bench	.836	0.18	162.14 165.95 167.14
G1_G2_G3 P_Bench	.107	2.4	174.76 193.82 200.00
G1_G2_G3 O_Squat	.065	2.93	267.14 289.29 302.62
G1_G2_G3 P_Squat	.001	9.70	292.75 351.00 352.00

Conclusions

- Bench press only showed significance from year 1 to year 3 ($p=.045$), but no significance from year 2 to year 3.
- The squat showed significance in change from year 1 to year 3 with baseline testing ($p=.021$), year 1 to year 2 post-testing ($p=.001$), and year 1 to year 3 post-testing ($p=.002$)
- When comparing all three years only post-squat testing showed any significance ($p=.001$).
- While block training has shown significance, training age may also play a factor in High School baseball athletes.

Practical Application

- The use of linear periodization can have positive effects on increasing the attributes of power, strength, and acceleration
- In well-trained athletes, block periodization may be more effective in gaining more strength specifically in the squat over time.
- For coaches seeking to improve specific adaptations for their athletes, block periodization may be a better choice than linear periodization over time with well trained athletes.

