

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.

Methods

- 22 varsity aged baseball players participated in the off-season strength program
- Athletes performed 2 weeks of isometric training, 2 weeks eccentric training, 4 weeks of hypertrophy training 3 weeks of contrast training and 3 weeks of cluster training.
- 1 week of testing before the program began and 1 week of testing post program
- Athletes performed a weight training split of Back/Hamstrings and Quads and Pressing.
- Athletes performed training 4 days a week (M, T, Th, F) for 45 minutes
- Daily monitoring of vertical jumps and weekly monitoring included, vertical jumps, hand grip and 10Y dash to ensure no overreaching and proper adaptation

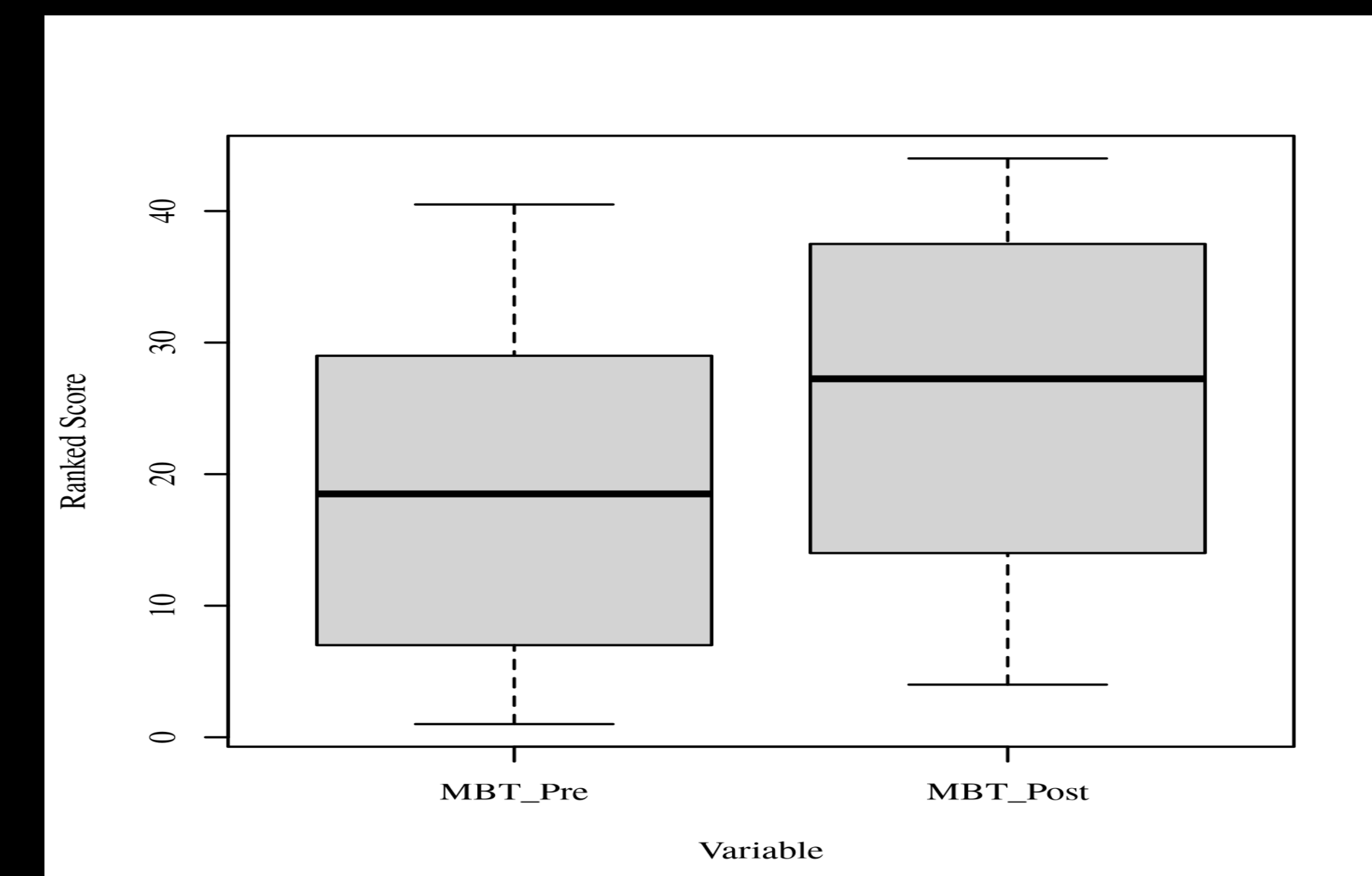
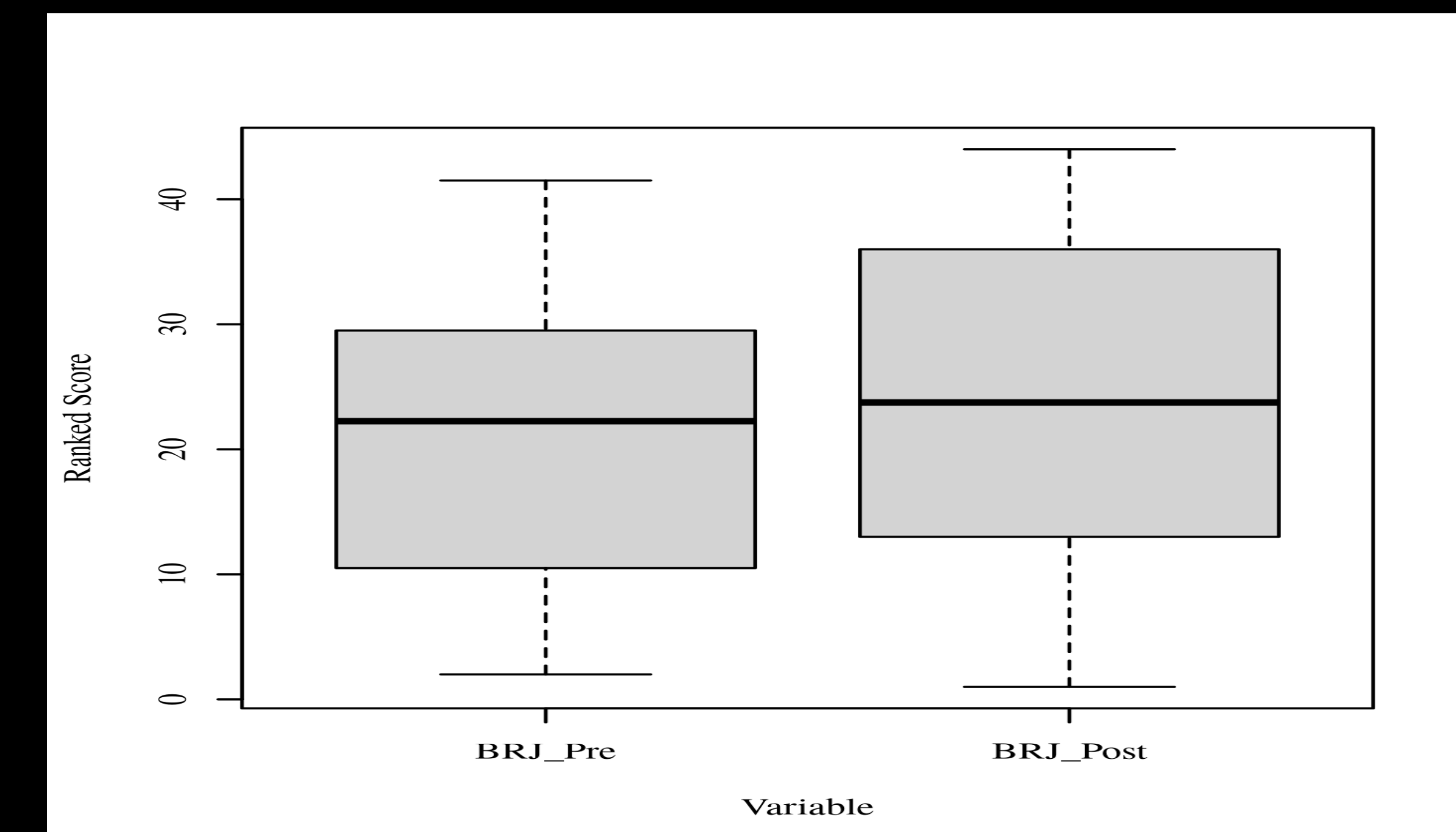
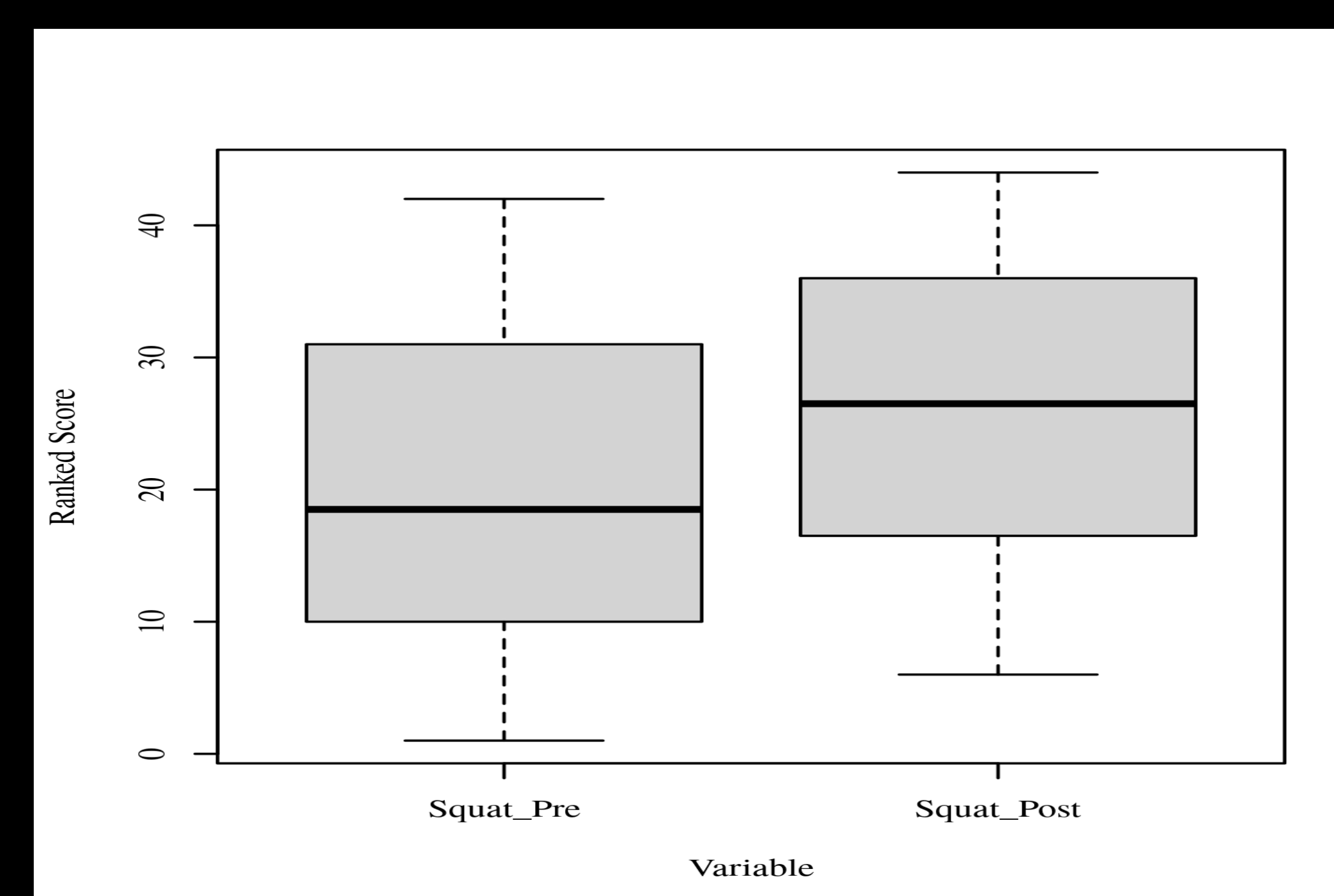
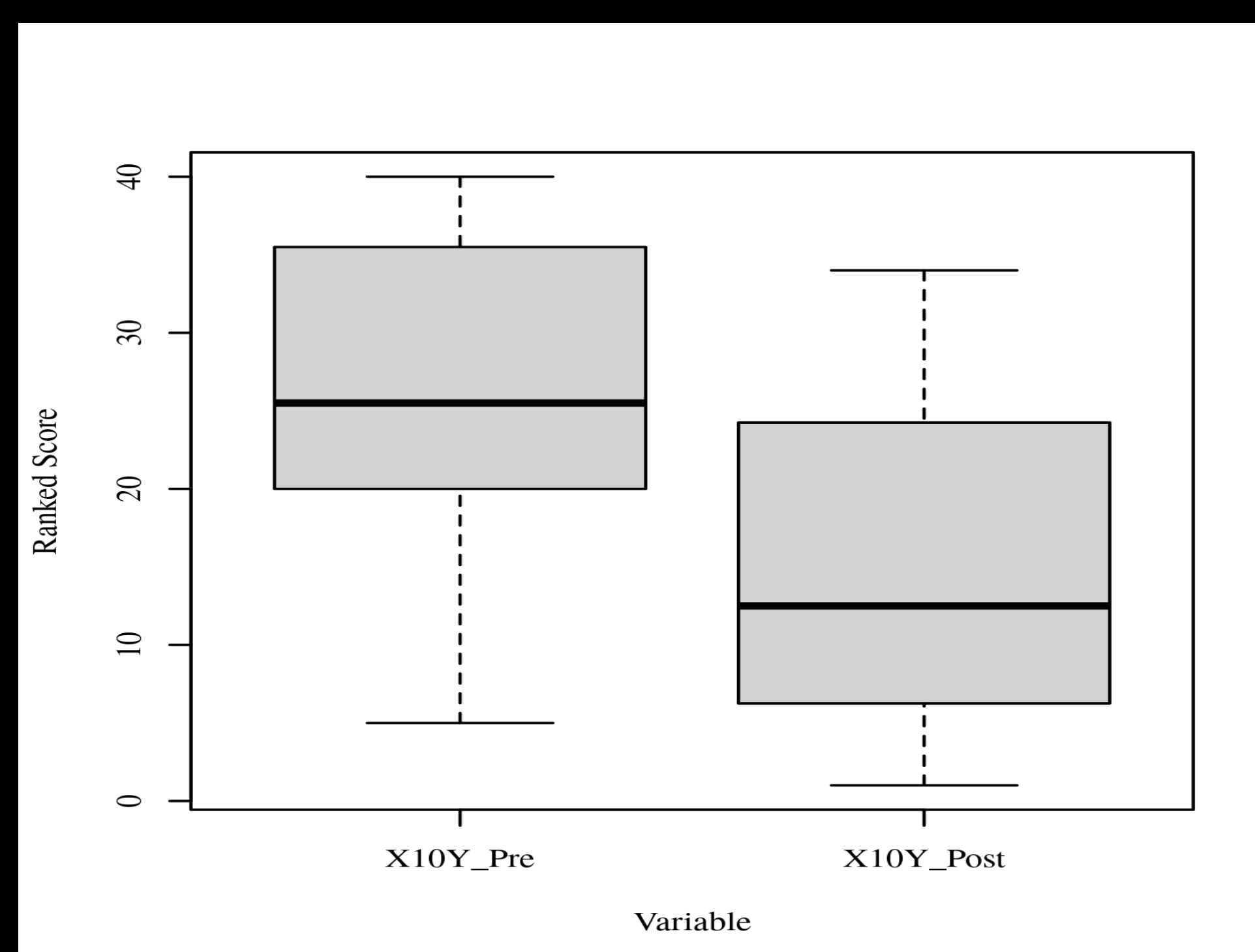
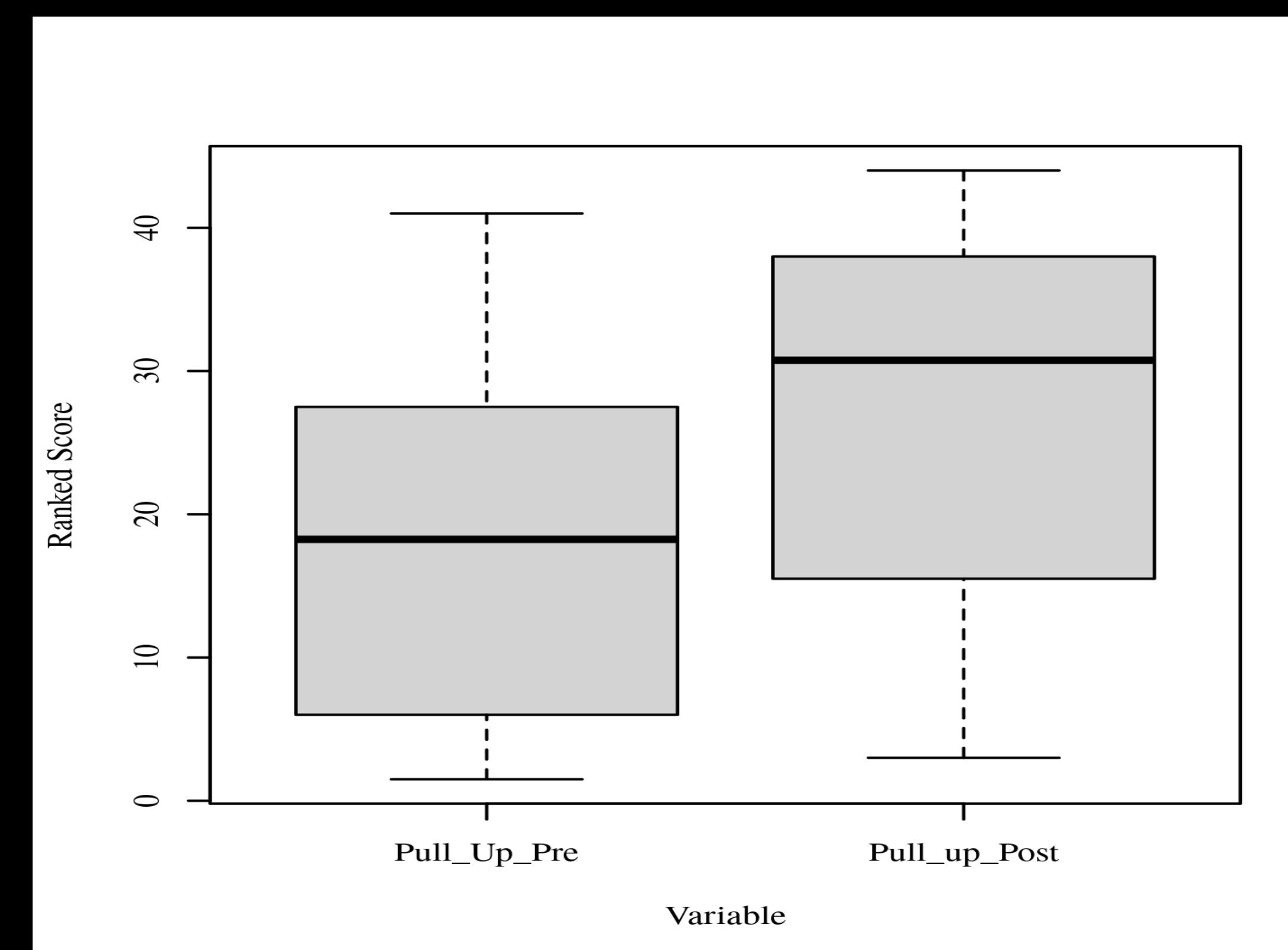
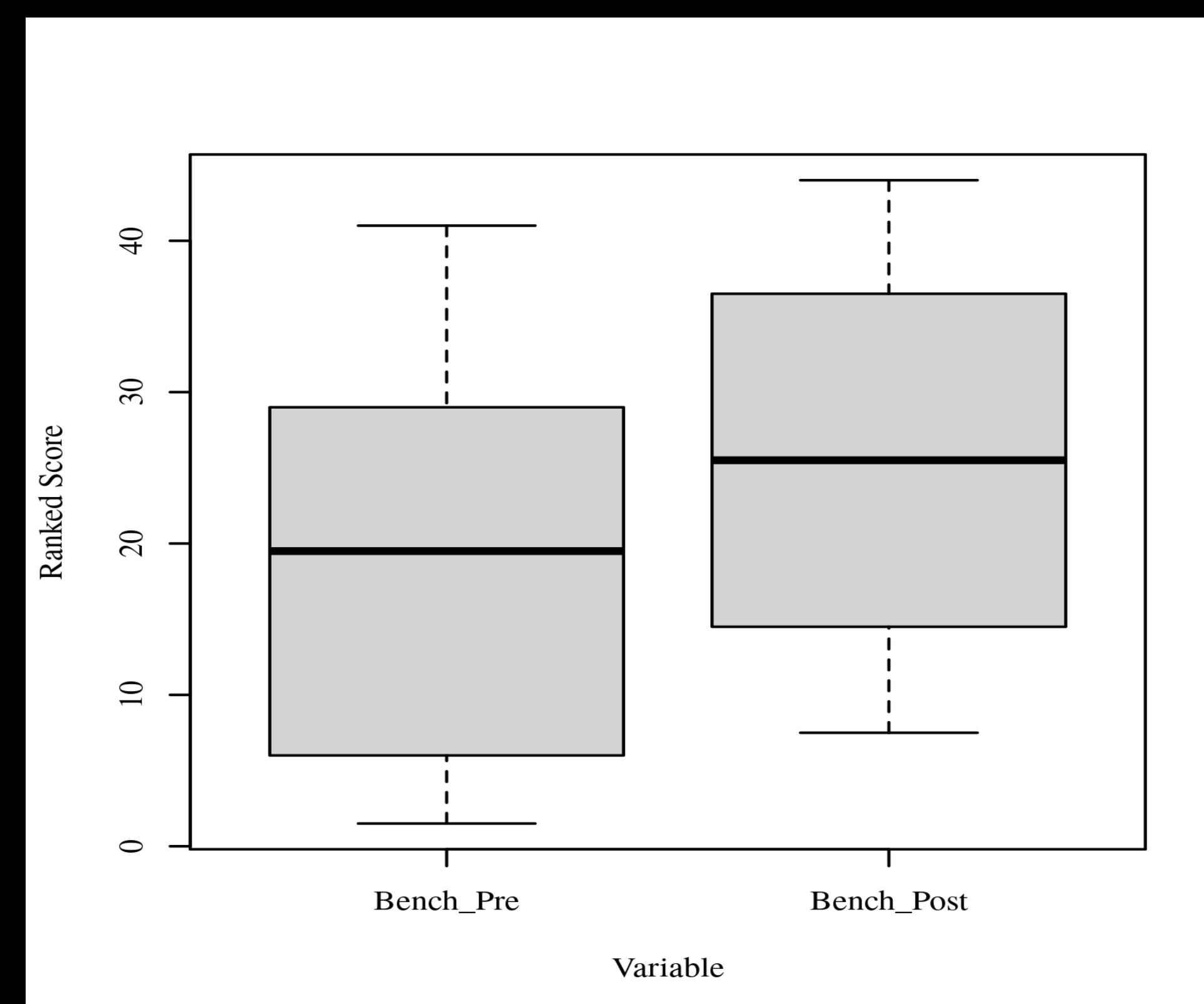
Results

- All athletes showed Improvement in their testing numbers
- All performance indicators showed significance except relative strength ($p = .053$)
- Blocks periodization has shown to be effective in increasing specific performance metrics over a 16 week period time frame
- This method can be used in the HS sector to improve overall performance.



Results

| Variable | P-Value | Sig | Pre | Post | Difference | Null Hypothesis |
|-------------------|---------|-----|--------|--------|------------|-----------------|
| BW | <.001 | Yes | 178.2 | 185.9 | 7.70 | Reject |
| VJ | .003 | Yes | 27.45 | 28.71 | 1.26 | Reject |
| BRJ | <.001 | Yes | 98.41 | 100 | 1.59 | Reject |
| Med Ball | <.001 | Yes | 14.7 | 16.6 | 1.90 | Reject |
| 10Y | <.001 | Yes | 1.77 | 1.67 | -1.00 | Reject |
| Squat | <.001 | Yes | 310.45 | 351.14 | 40.69 | Reject |
| Bench | <.001 | Yes | 177.95 | 204.09 | 26.95 | Reject |
| R Grip | .003 | Yes | 484.95 | 529.95 | 45.00 | Reject |
| L Grip | .001 | Yes | 482.55 | 524.14 | 41.59 | Reject |
| Pull-Up | <.001 | Yes | 9.82 | 14.36 | 4.540 | Reject |
| R Strength | .053 | No | 4.49 | 4.94 | 0.450 | Accept |



Practical Applications

- Proper program utilizing block periodization can be an effective way to increase performance metrics
- Using daily and weekly monitoring is an effective way to ensure adaptation to the program
- Program adherence is critical in the overall performance increases in HS athletes

Program Highlights

- Wins 31 (4th)
- ERA 1.8 (3rd)
- Strike outs 289 (2nd)
- Saves 13 (2nd)
- Hits allowed 169 (1st)
- Earned runs 61 (1st)
- Runs allowed 71 (1st)
- Quality at bats 66% (1st)
- Stolen bases 172 (1st)