

Authors Conflict of interest should include that some equipment used in study is sold by authors company. Author is owner of Driveline facility and author of HTKC1.

### **Abstract:**

**Background:** the study is not “comparing” a weighted-implement program to a different program. It is evaluating the effect of a weighted-implement program on arm stress, ROM, etc.

- I would not use arm stress or arm Range of motion. Instead I would use specific joints (elbow, shoulder)

**Hypothesis:** change to “a six-week training program using weighted implements will increase pitching velocity along with concomitant...”

### **Methods:**

-add age range of pitchers.

-Clean up first sentence.

-If the training program was individualized then I wouldn't consider it a standard protocol. I would better explain this.

### **Results:**

I would include the actual values when discussing specific results.

My preference is more simple sentences with the subject first. I would make these changes through the whole results section. For example...Instead of “*Among the biomechanical parameters computed, four were significantly different after the training period.*” Try something like “Four biomechanical parameters were significantly changed after the training period.”

I do not consider range of motion to be arm laxity. Happy to discuss more.

### **Conclusion:**

I would modify first couple sentences to something like “Following a six-week weighted implement program, pitchers did not show a statistically significant change in velocity, joint kinetics, or (shoulder or elbow or both) range of motion. When comparing pitchers who gained velocity versus pitchers who did not, no statistically significant changes were seen in joint kinetics and shoulder range of motion. “

Change “run counter” to “do not support”

Revise last sentence, I'm not exactly sure what it is trying to say.

### **Introduction:**

Line 53: change to “negative effects”

Line 57: kinematics and kinetics are broad term. I would try to be more specific about what kinematic or kinetic variables you are discussing.

Line 60-61: study is now published and no longer under review. I would make this its own sentence.

Line 62. I would explain how heavier weighted plyometric throws differ from overweight baseballs. Many readers will not know of this difference. Could even better explain typical weight of baseball compared to over and underweight balls at beginning of introduction.

Line 65: don't shorten to "plyos" use full term.

Line 69-71 – need to cite this even if it is news article

Line 80: remove "documented". Change to "Collegiate and professional pitchers participating in Driveline Baseball's summer training programs have on average increased pitching velocity 2.7 MPH in 2016 and 3.3 MPH in 2017 (Driveline Baseball, 2016 and 2017.)"

Line 82: remove this

Line 83: make sure that your abstract and manuscript purpose and hypothesis are the same. Since you did weighted-implement program plus other things you probably need to list it all in purpose statement. Change to something like "The purpose of the study is to evaluate training effects of a weighted-implement throwing program plus ... on pitching velocity, external rotation and elbow varus torque."

Line 86: again I'd keep this very straight forward. Consider changing to "We hypothesize the previously described program will increase external rotation,..."

Line 96: regarding "trainer" is that certified athletic trainer or personal trainer? Always use certified athletic trainer if talking about that group.

Line 108-109 – this should be the first part of your results. include age range of pitchers. Discuss why the four were excluded in beginning of results.

Table 1 should be moved to results.

Table 2 is unnecessary. Remove this.

Line 126: I would describe training and experience of this person. Ex. physical therapist with 10 years of experience

Line 134: I would state if the same person placed these markers and their training. You can look at other marker based pitching studies to see how they often state this.

Line 145: change "three clean takes" to "recorded three successful throws"

Line 161: how did you determine "best throw"?

Line 162: were these angles?

Line 164: if they were angles at certain time points then it is just shoulder external rotation and not maximum Shoulder ER.

Line 179: will need to describe what was standard for program and how individualized programs were determined and what was different in each one.

-I would also describe how often pitchers performed this program.

186 – I would cite Jaeger Band company like you have done with other companies

206- remove “sold out of”

219 – I would describe the different types of long toss more. Such as instructions given to athletes or distances between throwers or more about trajectory of throws.

227 – describe “stick” catch of ball. Assume readers have never heard of some of these terms that are common to you.

233 – cite location of marc pro company

235 – spell out DOMS first time it is used.

242 – spell out FAKTR

244-246 – describe typical week regarding number of different sessions listed. (I see you address this somewhat in lines 249-251

247 -248 – I would include the results of this in the results section. For example: how many athletes completed 90% training sessions. What percentage of training sessions did athletes complete on average. How many athletes were dropped from the study.

Line 255 – I would use “measure” instead of “metric”

### **Results:**

Line 264: I do not consider laxity to describe range of motion. I would change to range of motion

Lines 271-275: report clear results. avoid speculating “may yield interesting results” and remove “might have expected.” That type of language and thought is more appropriate in discussion

Line 280-281, 291, 297. No significant difference in what value? I’d figure out a way to clarify this in these lines.

### **Discussion:**

**Overall it is very long. I would recommend trying to condense it, if possible.**

Lines 381-391 – it is hard to accurately measure shoulder external rotation. less than 3 degrees of shoulder rotation is probably within the error of measuring . even the change in dominant vs nondominant shoulder could just be measurer error.

Line 516 – add (“as” seen in this study)

### **Conclusion:**

Line 548 – I would write out the original hypothesis again here.

