

Marksman vs. Innova Baskets

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A recent non-sanctioned disc golf tournament held four rounds on two courses. One round on each course used Marksmen baskets, while the other round used Innova.

The Marksmen baskets generated higher scores overall. There was only a 0.4% chance the difference on the long course was caused by luck (Wilcoxon signed rank test). However, the difference on the short course was not significant, with a 22% chance that it was caused by luck. For the total score of both courses, there was only a 0.4% chance it was caused by luck.

Looking at only the top 37 (out of 44) players removes some of the randomness caused by unskilled play. For the better players, the difference in scores between baskets was even more significant: just 0.2% for long, 10% for short and .03% for both. The Effect Size was 51% for long, 27% for short, and 65% for both.

For these 37 players, on the short course the Marksmen added a total of 26 throws (less than one per player) over the 2267 throws at Innova. On the long course, the Marksmen added 108 throws (about 3 per player) over the 2591 thrown at Innova.

The marksmen added throws – at least to the long course. But, the question arises as to whether these extra throws helped distinguish good players from bad. If they did, it should have added more throws to the high scores. In other words, the slope of the scores added by Marksmen as a function of the scores for Innova should be greater than 0.

We find this not to be the case. On the long course, the Marksmen added 5.2 throws to a 1000-rated player, added 2.5 throws to a 916 rated player, and zero throws to an 839 rated player.

For the short course, the Marksmen added 2.5 throws to a 1000-rated round, zero throws to a 916-rated round, and subtracted 2.2 throws from an 839 rated round.

