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Do Composite and Corked Bats Improve Play?

The purpose of our experiment is to try and improve a baseball player's hitting in a game. We wanted to see if we could help improve our batting skills in baseball by finding the most efficient bat. To test this, we used a SKLZ Hurricane Solo Swing Trainer to hit an inert baseball off of a tee. The machine works by using eight resistance bands that wound around the machine and then they snap back to their original position, thus swinging the bat and hitting the ball off of a tee. We tested the bats on a baseball diamond to get more realistic results for somebody playing in a baseball game. Our hypotheses were: If an aluminum bat with an internal graphite wall were to hit a non-moving ball off of a tee, then it would go farther than an aluminum alloy bat with the same mass and length hitting a baseball under the same circumstances. Our other hypothesis was: If a solid wooden baseball bat were to hit a non-moving baseball off of a tee, then it would hit the ball farther than a corked wooden baseball bat of the same model. The results from our tests were a bit shocking, because our hypotheses were incorrect. The composite baseball bat did not perform as well as the aluminum alloy by a decent amount, and the corked wood bat performed slightly better than the solid wood bat. Our test's results were rather enlightening.