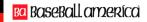
# What Matters In Hitting: Integrating The Swing With Visual Reality





## By Tony Abbatine on January 30, 2018

#### Bat Speed vs. Visual Speed

Bat speed is mandatory to get invited to pro ball. Visual speed, which is processing more information prior to and during ball flight, gets you all the way to the majors. Great hitting eyes, like speed readers, can scan for clues and avoid the stop, jump and stare habits of the visually weak.

#### Bat Path vs. Scan Paths

What if you had different options to get to the release window of a pitcher? What if the direction in which you approached a tough lefthander was different than a righthander, or you changed your gaze patterns before the ball release, which allowed you a better look at early ball flight? Hitters have been making physical adjustments in their swings since high school. It may be time for coaches to suggest different routes to the window, in order to improve ball flight clarity.

#### Rotational Acceleration vs. Ocular Anticipation

Hip rotation and angular velocity wins the prize in batting practice, during showcase events and may even get you drafted. But if you were to drive down the highway, the passing lines would appear much faster when you are looking directly in front of the car's hood, rather than when you look out a few feet in front of the car. This is basically radar gun speed versus perceived visual speed. Once your hitters learn to control ball flight by changing their "view finder" another level of hitting appears.

### Time to Contact vs. Improved Visual Calculus

Newsflash: Hitters are getting jammed or chasing pitchers because they are visually late—jammed—or their "Go Zone" reads—chase swings—were too early to assess final trajectory. Remember, timing and balance issues in the swing are a byproduct of a hitter's "misinformation" during the first half of ball flight. Second newsflash: It's tough to hunt or sit on a pitch if the hitter's picture is fuzzy.

#### **Dynamic Visual Training Concepts**

Coaches and clubs always want more drills. Keep the hitting drills you have and add a visual challenge. As a starting point, ask your hitter to close their eyes as the ball is halfway to the plate during batting practice and soft toss. Go back and watch film or look at photos of where the hitter's eyes are on contact in real games to understand why. The best drill to teach vision starts with a dialogue to find out what the hitter's visual game plan is from pre-release to the "Go Zone."

Hitting success is a three-part model that involves the integration of visual, emotional and physical skills. Teams that are arming their staff with tools for all three and blending each category—not boxing them into departments—will see the difference.

Visual training for high-level hitters is . . .

Not done while sitting and having your eyes slammed, crammed and jammed looking at a computer or playing video games in an one-dimensional setting with no fear or the stress factor of live hitting.

Not done with the overabundance of hitting drills that isolate and segregate the movement patterns of a game swing or don't create game speed visual challenges.

Not done by reading vision charts without the hitters moving back and forth in their swing and positioned 15 feet away to simulate where the hitter's final "Go Zone" is located in real games.

Not done by telling all hitters to soft focus, fine focus and look for the window. When you ask the best "eyes" in the game what they are doing, they more closely describe an open focus—seeing more by looking at nothing.

Not done by telling hitters to hard focus on the ball intensely, which short circuits the brain from assessing space and distance—the two sources of information the brain needs to help predict time to collision.

Many moons ago Ted Williams was asked what the most important part of hitting was. His answer was simple yet profound.

"You need to see the ball well, so you get a good pitch to hit," said Williams. Teams now are getting smarter in putting substance behind his credo.

It's an exciting time of the year for major league organizations, as coaches and front office officials are trying to check all the right boxes in order to give their teams the best chance to win a World Series and develop young talent.

Meanwhile, the swing debate continues to be one of the hot topics of the offseason. What will be the new, best practices adopted to develop minor league hitters and take their major league hitters from good to great in 2019?

The answer seems to be a hybrid of both the swing and visual efficiency.

In a perfect hitting world, swing efficiency and top-notch visual skills are combined, creating hitters who have the physical movements and visual skills of the elite.

However, forced to choose one model, teams are beginning to realize that some of the swing "errors" go away with improved visual skills. Remember, vision is not solely 20/20 eye sight, but rather a high-speed process to get clear information to the swing muscles on time. Therefore, the end game is to get one-hundredth of a second more efficient when estimating when and where the ball is arriving, giving hitters more time to either say, "yes, or no."

The debate on the perfect swing will rage on for years. Clearly, swing doctors have the advantage of measurables. The blueprint for what the best hitting eyes do are tougher to copy. New technology has helped track eye movement and gaze patterns inside labs, but the accuracy and application of the equipment still remains debatable. In addition, part of the visual process occurs at the subconscious level, so hitters don't remember or can't articulate what they are seeing.

Let's not kid ourselves. Teaching the swing is much easier by replicating and teaching movement patterns in a controlled setting than it is to chase the invisible holy grail of hitting—vision. As we all know, teaching the swing at the amateur level is a multi-million dollar business.

So, how do you measure improved visual skills? There's a simple answer. Every individual hitting statistic and team offensive category is premised on each hitter in the lineup seeing the ball—both in and out of the strike zone—more effectively. Winning each pitch turns into offensive counts, which we all know gives hitters the advantage in an at-bat.

Let's compare some swing measurements with matching visual tools.

#### Peak Hand Speed vs. In-Flight Barrel Control (IFBC)

Fast hands are crucial to turn around 95 mph fastballs. The best hitters can slightly manipulate the barrel to combat late movement. Do you give up a tick of hand speed or exit velocity for improved barrel control against the best pitches in high-stress at-bats?