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SPORTS VISION MAGAZINE

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League Champions: Little league baseball players from Davis, California, who participated in a three-week sports vision training study using the EYEPORT Vision Training System, experienced significant improvement in batting performance.

**90% improvement in
batting performance
after vision training**

TRAINING:

- 10 minutes a day
- 6 days a week
- 3 weeks total

RESULTS:

- before training
 - 40 curve balls, 17 hits
- after training
 - 40 curve balls, 28 hits

LITTLE LEAGUE STUDY

The impact of sports vision training on the batting performance of little league baseball players

by Gretchen Anderson

Imagine emerging from the loser's bracket to win your first league championship. Well, that's exactly what happened to a Davis, California little league baseball team after just three weeks of sports vision training.

While congratulations are certainly in order, the more burning question for many is whether the sports vision training was merely coincidental or whether it was directly responsible for the team's success.

It's a difficult question to answer because there are so many factors that influence the success of a baseball team, let alone the hitting performance of individual players.

Assessing hitting performance. "Baseball is a complex sport with many different situations occurring in a baseball game," explains Teresa Bowen, a vision educator and avid baseball fan, who led a study to test the impact of sports vision training on the batting performance of little league baseball players.

For example, Bowen says a manager may signal for a batter to take a pitch (not swing), or hit-and-run (swing and hit the next pitch regardless of where it is thrown), or sacrifice bunt.

Sometimes a ball may be struck solidly, but directly at an infielder, resulting in an unsuccessful at-bat. Conversely, a batter may mis-hit the ball and still float a blooper into the outfield, resulting in a successful at-bat despite a weak performance at the plate.

"The many situations which can arise in a baseball game will alter the performance data," says Bowen, a certified natural vision improvement teacher based in Davis, California. "As such, batting statistics are only one piece of information used to determine a player's ability."

Nevertheless, it is possible to focus on hitting and to test the importance of visual aiming, tracking and focusing on this skill.

RESEARCH STUDY

To conduct her study, which was completed in 2004, Bowen says the first step was to isolate the skill being tested (hitting performance) so that it was not confounded by other factors. For this reason, performance was tested in a batting cage.

"Little league players typically practice in a batting cage for a minimum of one to two hours,

several days a week to improve their hitting performance," says Bowen.

Curve balls. The next step was to decide on the type of pitch to use. Bowen explains that curve balls are thrown with topspin and/or sidespin, resulting in a ball that drops vertically, moves horizontally or a combination of the two, as it crosses the plate. Consequently, curve balls are more difficult to hit than fastballs, which have a trajectory that is primarily straight.

Because a fastball has relatively little sideways or vertical movement as it crosses the plate, hitting this pitch requires less precise tracking skills than hitting a pitch with greater movement over the plate, such as a curve ball.

"Little league batters who have become proficient at hitting a fastball often have great difficulty hitting a curve ball, because it requires more refined visual tracking, as well as the ability to see the rotation of the seams on the ball," says Bowen.

Sample size. The study was conducted with twelve little league baseball players. Before receiving any sports vision training, researchers established baseline hitting performance stan-



dards for each player. A series of 40 curveball pitches were fed from an automatic pitching machine to each player, from a distance of 46 feet and at a speed of 50 mph. Each player used his own equipment (bat, hat, and batting helmet) during the study and was instructed to swing at every pitch.

The total number of misses, hits, and foul balls, were then recorded for the 40 pitches thrown to each player in the batting cage. A foul ball constituted a foul tip, pop up, chopper (a ball hit on the ground), or a ball hit at an extreme angle that would likely land in foul territory. "A foul tip, pop up and chopper are easily recognized," says Bowen. "Balls that were hit solidly were called hits unless the ball left the bat at an extreme angle and hit the cage within three feet of the batter."

Each player was also given a questionnaire asking them to rate:

- How easy or difficult it was to follow the ball all the way to the bat and then hit it.
- How relaxed and confident they felt.
- Whether they felt distracted or tired during the batting session.

Sports vision training. After receiving instruction, each player used the EYEPORTR vision training system—for three consecutive weeks, six days per week, 10 minutes per day—to train their visual skills.

"The primary purpose of the EYEPORTR is to improve visual tracking," says Bowen. "It's designed to aid in training the processing speed, accuracy and efficiency of vision. The basic task for the subject is to visually track the lights as they illuminate, as accurately and quickly as possible."

The EYEPORTR has programs that increase in complexity. The speed at which the lights illuminated was increased each week.

The use of red and blue lights is a unique and important aspect of the EYEPORTR vision training system, Bowen says. "The red light causes the eye to focus in the interest of clarity, while the blue light causes a relative relaxation of the eye muscles. By alternately viewing these colors, a rocking action that stimulates and relaxes the eye's focusing system is created."

In order to minimize any external influences on performance during the study, there were no scheduled baseball games or practice sessions,

and none of the players received any batting practice.

Post training test. Following the three weeks of sports vision training, the 12 players were again given a series of 40 pitches under comparable environmental conditions, with the same equipment, in the same batting cage with the same pitching machine and curve ball settings that were used in the pre-training test. The total number of hits, fouls and misses were again tallied.

Results. The average improvement in hitting—counting solid hits only—for the 12 players was 90%. The average improvement in hitting when including solid hits and fouls in the analysis, with scoring as described above, was 34%.

Sports vision training apparently has the potential to help Little League baseball players improve their batting skills in the absence of coaching or practice. "Our results clearly demonstrate an improvement in the ability of these little league players to hit curve balls, after using the EYEPORTR vision training system," says Bowen.

Limitations. Despite the positive results, Bowen's study was not without limitations. The sample size was relatively small and the study was not conducted with a control group (a group of players that did not receive sports vision training). "A larger study with both a treatment group and a control group in which all participants do not engage in any baseball practice is required," acknowledges Bowen.

Limitations of this study stated, one must appreciate the magnitude of the improvements that were shown several weeks immediately following the use of the vision training system.

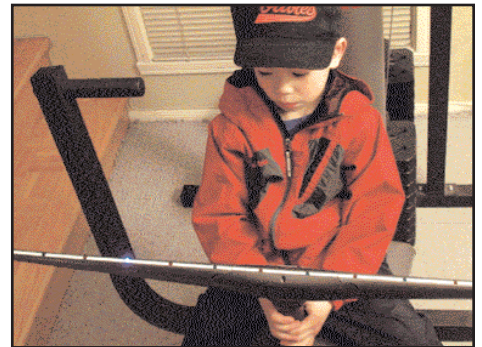
"In summary, our study results demonstrate a substantial improvement in the ability of these subjects to hit curve balls after using the EYEPORTR vision training system," says Bowen.

"The results from this study are promising and potentially important to many little league players, as well as athletes in other sports like tennis, golf, and basketball. The results clearly demonstrate a link between vision training and improved athletic skills, while confirming the importance of visual aiming, tracking, focusing and teaming to optimal batting performance." ■

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Visual skills. Study confirms the importance of visual aiming, tracking, focusing and teaming to optimal batting performance.



Sports vision training tool: The EYEPORTR is a 36-inch light-tracking device with 12 lights positioned in a row of alternating red and blue colors.



Versatile training: The EYEPORTR can be rotated into horizontal, vertical, diagonal and oblique positions to improve visual tracking and visual processing speed.



Eyes on the ball: The ability to recognize the rotation on the seams of a baseball is often used to teach players how to see an approaching curve ball.