PERCEPTIONS, ATTITUDES, AND SKILL IMPROVEMENTS OF HIGH SCHOOL BASEBALL PLAYERS PARTICIPATING IN VISUAL SKILLS TRAINING

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INTRODUCTION

- Professional baseball players with greater visual capacity exhibit superior batting performance, linking visual skills to a player's performance [1].
- Previous research has shown vision training using analog and digital methods to improve visual skills [2,3]
- Confidence and perceived sport competence is an important part of a proposed positive feedback loop between physical activity and motor skills [4,5]

PURPOSE

To investigate the attitudes, perceptions, and visual skills of high school baseball players

METHODS

33 High School Baseball Players
Ages ranged 15 - 18

VEPT = Vizual Edge Performance Trainer

VEPT Initial Assessment

- Eye Alignment
- Depth Perception
- Visual Recognition
- Visual Tracking
- Convergence
- Divergence

Six tests are combined into VEPT Overall Visual Skills score

VEPT Training Sessions

1-2 Sessions a week

Averaging 17.16 ± 2.73 weeks

Averaging 18.07 ± 2.90 minutes

*Numbers are displaying Mean±SD

VEPT Post Assessment

25 Likert-Scale Question Survey

Statistical Analysis

- Pre and Post VEPT scores compared using a dependent samples t-test
- Agree and strongly agree survey responses converted into percentages

RESULTS

- Post training scores were higher than baseline scores ($t(32) = 2.04$, $p<0.001$, $d = 1.22$), with 7.6 % difference.
- Over half the sample reported perceived improvements in their overall visual skills and their ability to focus on the ball.

FIGURES

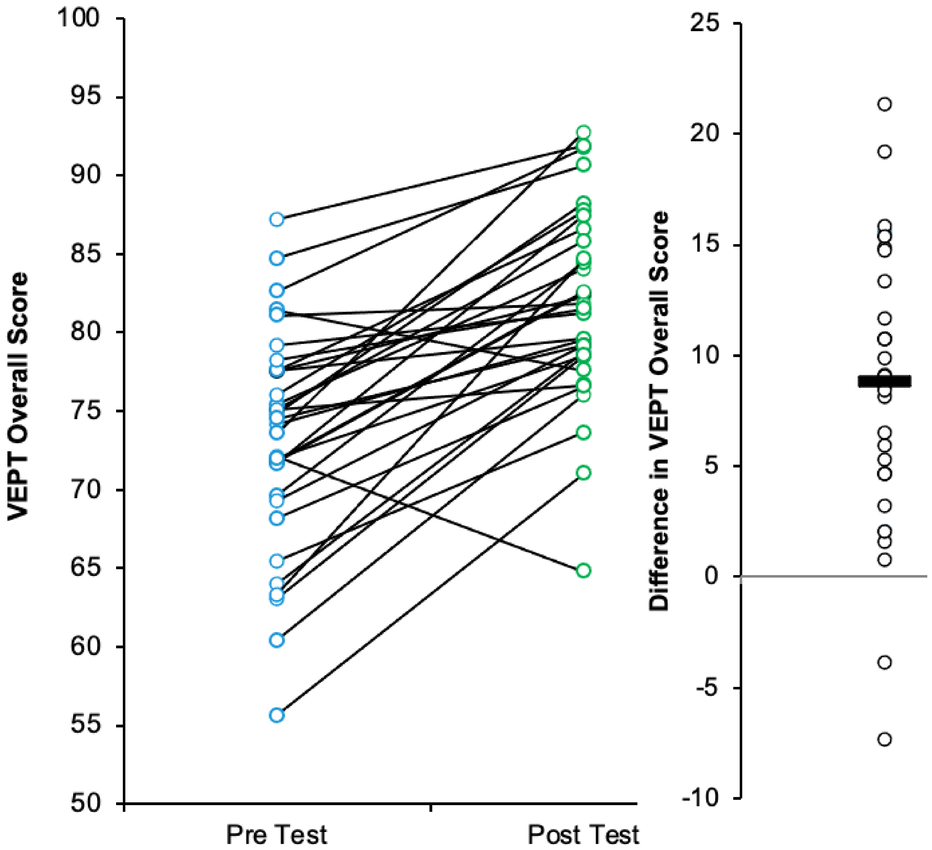


Figure 1. Ladder plot displaying the pre and post VEPT Overall Visual Skills Score, a comprehensive score out of 100. Subjects showed an average improvement of 8.64 ± 6.37 points.

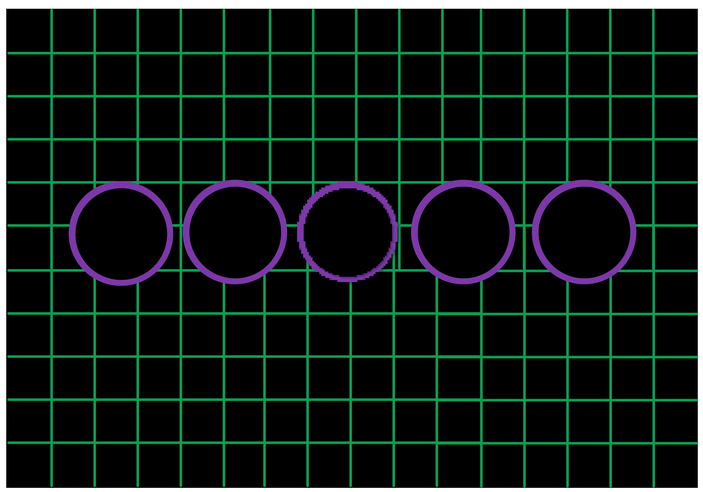
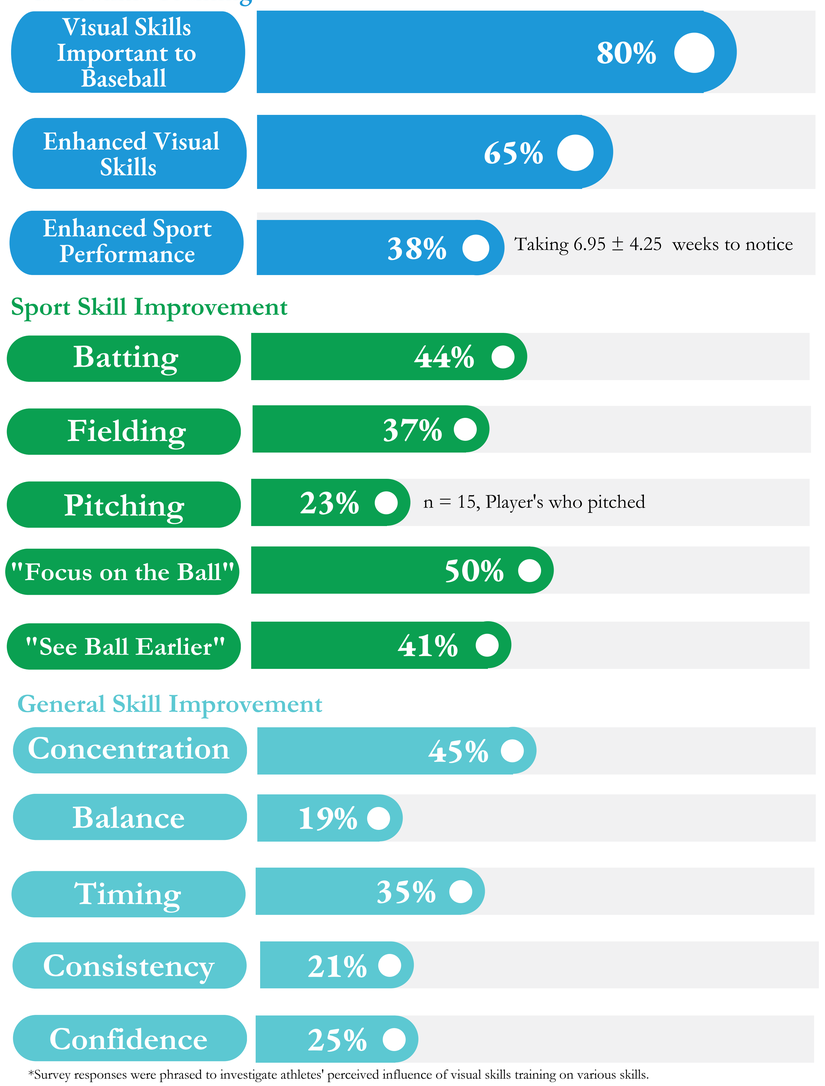


Figure 2. Example of a still from the depth perception portion of Vizual Edge Performance Trainer assessment and training.

REFERENCES QR CODE

SURVEY RESPONSES



*Survey responses were phrased to investigate athletes' perceived influence of visual skills training on various skills.

CONCLUSION/PRACTICAL APPLICATION

- Saw a significant improvement and perceived improvement in visual skills after visual training.
- Future research should determine the effect of training visual skills on physical as well as perceived performance.
- Can be used by coaches, trainers, and players to improve visual skills, hopefully resulting in improvements on the field or at least improved attitudes and perceptions of abilities.