LEADER IN IMPLICIT TRAINING

PERFORMANCE ENHANCEMENT THROUGH BRAIN BASED TRAINING

WHAT IS IMPLICIT TRAINING?

EXPLICIT LEARNING

- COACH FOCUSED
- TRADITIONAL METHOD

IMPLICIT LEARNING

- LITTLE TO NO INSTRUCTION
- ATHLETE FOCUSED

Implicit training involves skill acquisition and performance enhancement through **brain based training methods.** Correctly identifying and separating *learning* from *performance enhancement* is the first step toward quality implicit training. This identification process is very important because it determines which method of training will be used for developing hitters and pitchers more effectively and more efficiently.

Learning a skill (skill acquisition) is different than mastery of a skill. **Once the basic skill is learned there is no need to relearn it over and over.** For example, once a person learns to ride a bicycle they can enhance their riding *performance* but they have no need to relearn the basics every time they grab the handlebars. Likewise, once a hitter or pitcher expresses that they can effectively perform their basic task or position function its time to move on to performance enhancement. Too many are falling into a trap and regressing into a pattern of explicit dominated "T-Ball" drills with repetitive overtones hoping to relearn a particular skill on a daily basis. We oppose excessive indulgence in explicit drills and promote engaging the brain directly so it can progress down the road to max performance.

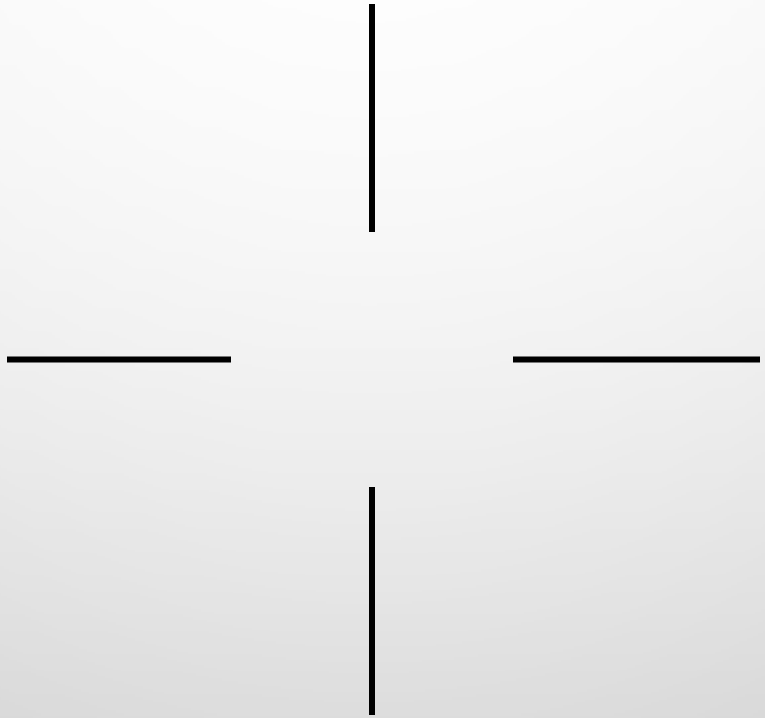
There are certain neurological conditions and criteria pertaining to the strike zone and it's unique entanglement with invisibility. For example, **the strike zone doesn't exist in exterior environment and regardless of how hard a hitter tries they can't "see" it.** Pitchers face the same dilemma when trying to acquire spatial information through feel or perception. **Space** and **time** have **no physical attributes** that can be *cumulatively* assessed by the brain. Therefore, any **advancements in performance will be directly linked to implicit training and its ability to alter the brain from the inside out.** By strengthening the neurons that are carrying visual impulses throughout the visual system **we can improve performance efficiency for baseball and softball players.**

The V-Flex way of training the brain implicitly through **spatial stimulation** while using *objective* training tools is a paradigm shift from traditional explicit training methods. Studies across various sports show that athletes that train implicitly are **more stable and less likely to fold under pressure.** For that reason we chose to move away from **coach centered (explicit)** approaches and develop **player centered (implicit) systems.** Athletes that are implicitly trained are simply more consistent.

V-Flex modernizes Peak Efficiency Training for pitchers and hitters. Changing from an explicit system to a modern implicit system is logic applied. This is a life changing experience that allows players to control their own destinies.

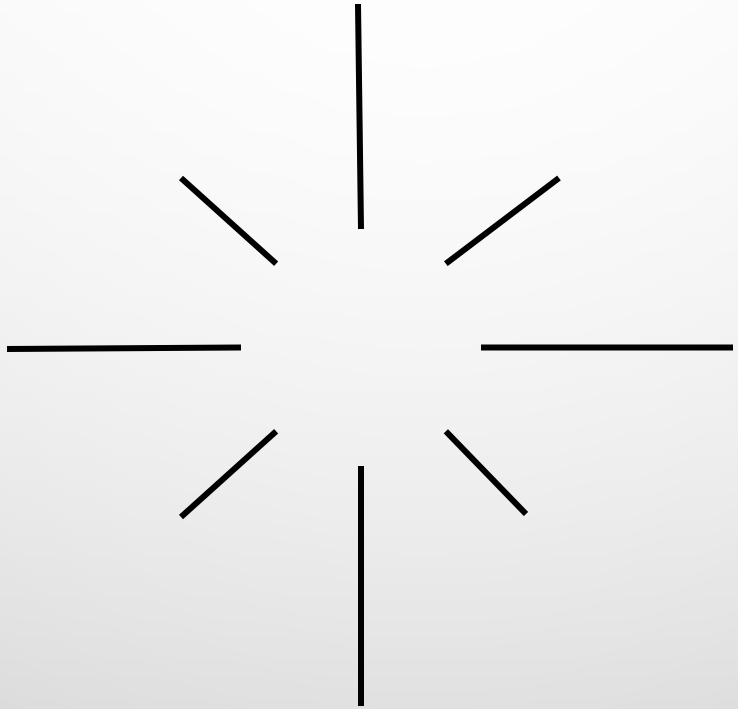
VFLEX AND SPATIAL STIMULATION

STIMULATION IS ACHIEVED USING VISUAL CUES OR PROMPTERS



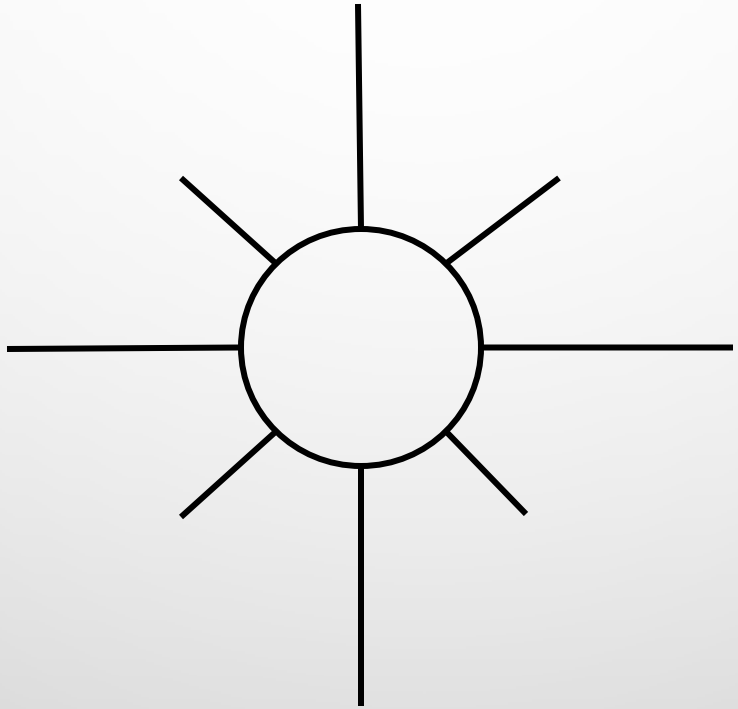
YOU WILL NOTICE THAT THE AREA IN THE MIDDLE IS BECOMING BRIGHTER WHEN THE PROMPTERS ARE ADDED.

INCREASE # OF PROMPTERS TO INTENSIFY STIMULATION



HOW DOES IT LOOK NOW? DID IT BECOME BRIGHTER? WITH THE ADDITIONAL PROMPTERS THE CENTER OF THE CIRCLE APPEARS TO BE BRIGHTER THAN THE REST OF THE PAGE, WHY? IMPLICIT TRAINING. WE PROVIDED THE PROMPTERS AND THE BRAIN DID THE REST OF THE WORK.

PROVIDING YOU WITH ALL THE INFORMATION DECREASES STIMULATION



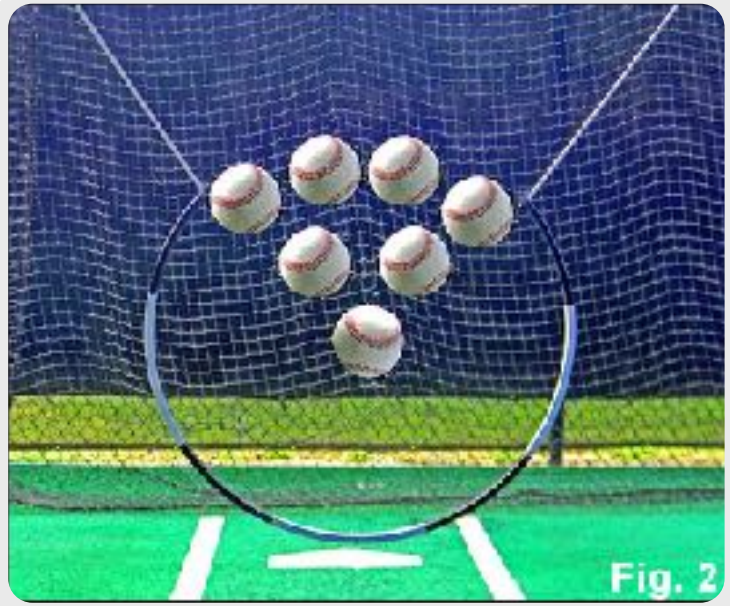
HOW DOES IT LOOK NOW? DID YOU NOTICE THAT THE CENTER IS NO LONGER BRIGHTER? I PROVIDED YOU WITH THE CIRCLE (EXPLICIT TRAINING) WHERE THE PREVIOUS SLIDE GAVE YOU CUES AND YOUR BRAIN DID THE WORK (IMPLICIT TRAINING).

STRIKE RECOGNITION TRAINER (IMPLICIT)

- **THE BASICS OF IMPLICIT TRAINING**
- MINIMIZE VERBAL FEEDBACK
- SUCCESS= SWING AT STRIKE
- THROW NO MORE THAN THREE STRIKES IN A ROW
- MIX SPEED AND LOCATION
- THROW "BALLS" 2-3 FEET FROM STRIKE ZONE
- MAXIMUM OF 10 SWINGS PER SET
- USE WITH PITCHING MACHINE IS OK
- TRACK PERFORMANCE USING **SWINGD APP**

TEAM OBJECTIVE

- THE MAIN OBJECTIVE WHEN INTRODUCING V-FLEX TO YOUR TEAM IS TO PROVIDE THEM A BASIC UNDERSTANDING OF THE STRIKE ZONE AS IT RELATES TO PITCH EFFICIENCY. EXPLAIN THE DIFFERENCE BETWEEN "STRIKE RECOGNITION" AND PITCH RECOGNITION. **THE BRAIN DOESN'T HAVE ENOUGH TIME TO DETERMINE PITCH TYPE** AND COGNITIVELY CHOOSE TO SWING AT CERTAIN PITCHES THEREFORE V-FLEX TRAINS HITTERS TO RECOGNIZE A STRIKE REGARDLESS OF THE PITCH TYPE. (CURVE, CHANGE, SLIDER, ETC) **WE DO THIS BY ENHANCING THE SPACE THE PITCHES ARE TRAVELING THROUGH** SO HITTERS CAN ASSIMILATE SPATIAL INFORMATION FASTER. THE 7 BASEBALLS THAT FIT INSIDE THE V TRANSLATE INTO A CORE HITTING ZONE AT HOME PLATE. ALLOW THEM TO SELF ADJUST AND GAIN CONFIDENCE IN THEIR OWN ABILITIES TO SWING AT STRIKES. THERE ARE ADVANCED TRAINING TIPS AND TECHNIQUES IN THE USER'S MANUAL THAT COMES WITH THE PIECES. IF YOU HAVE PARTICULAR QUESTIONS ABOUT THE IMPLEMENTATION PROCESS JUST GIVE US A CALL. MAXIMIZING THIS SYSTEM IS MADE EASIER USING WWW.SWINGD.COM



ADVANCED UNDERSTANDING OF STRIKE RECOGNITION

- **INTERNAL REWARD SYSTEM**
- NEW FINDINGS IN NEUROLOGY SHOW THAT NEUROTRANSMITTERS THAT FACILITATE FASTER LEARNING AND/OR ENHANCED PERFORMANCE ARE RELEASED WHEN THE BRAIN IS FORCED TO PREDICT OUTCOMES. WE LIMIT THE AMOUNT OF STRIKES DURING THE TRAINING PROCESS BECAUSE **REPETITION IS AN INEFFICIENT WAY TO TRAIN** A DEVELOPING BRAIN. IMPLICIT TRAINING METHODS INSURE CORRECT NEUROTRANSMITTER RELEASE. **IT IS CRUCIAL THAT PITCH PATTERNS BE UNPREDICTABLE DUE TO THE BRAINS DISLIKE FOR REPETITION**. ***INCENTIVE SALIENCE*** IS A MOTIVATIONAL "WANTING" ATTRIBUTE GIVEN BY THE BRAIN TO REWARD-PREDICTING STIMULI. THIS "WANTING" IS UNLIKE "LIKING" IN THAT LIKING IS A PLEASURE IMMEDIATELY GAINED FROM CONTACT WITH STIMULI, WHILE THE "WANTING" OF INCENTIVE SALIENCE IS A MOTIVATIONAL MAGNET QUALITY OF A STIMULUS THAT MAKES IT A DESIRABLE AND ATTRACTIVE GOAL, TRANSFORMING A PITCH FROM A MERE SENSORY EXPERIENCE INTO SOMETHING THAT COMMANDS ATTENTION, INDUCES APPROACH AND CAUSES IT TO BE SOUGHT OUT. **THE PITCHES IDENTIFIED IN THE (V) REPRESENT AN AREA THAT COMMANDS VISUAL ATTENTION AND IS CONSIDERED A CONDITIONED STIMULUS. WHEN HITTERS SWING AT THESE PITCHES WE HAVE A CONDITIONED RESPONSE.** THE MAIN GOAL IS TO TRAIN HITTERS TO SWING AT STRIKES AND THIS IMPLICIT APPROACH TO STRIKE ZONE DEVELOPMENT IS CAPABLE OF **PRODUCING EXCEPTIONAL RESULTS**.

ADVANCED UNDERSTANDING OF STRIKE RECOGNITION

- **A REAL "SEPARATION" IN DEPTH**
- PRECISE DEPTH PERCEPTION IS CENTRAL TO THE ART OF HITTING. NORMAL HUMAN DEPTH PERCEPTION IS RELATIVE TO THE SPACE AND OBJECTS BEING PERCEIVED. OPTICAL DISPARITIES WITHIN THE VISUAL SYSTEM GIVE RISE TO NORMAL 3D VISION. V-FLEX ENHANCES DEPTH PERCEPTION BY **ALTERING CERTAIN DEPTH VALUES DURING BATTING PRACTICE.** THESE VALUES ARE CENTRAL TO VISUALLY GUIDED ACTIONS. THE QUALITATIVE EXPERIENCE OF ***STEREOPSIS*** IS EXPRESSED IN A MORE VIVID IMPRESSION OF TANGIBLE SOLID FORMS, IMMERSED IN NEGATIVE SPACE FOR THE PURPOSE OF DERIVING A "REAL" SEPARATION OF DEPTH (ABSOLUTE DEPTH). BY **ASSISTING HITTERS WITH DISTINCT SPATIAL PARAMETERS** THEY DEVELOP FASTER AND MORE EFFICIENT STRIKE RECOGNITION SKILLS. THE EXPRESSION OF THESE BEHAVIORS TRANSLATE INTO **BETTER GAME DAY PERFORMANCES** SIMPLY BECAUSE THE REGIONS OF THE BRAIN RESPONSIBLE FOR VISUALLY GUIDED RESPONDS HAVE BEEN IMPLICITLY ENGAGED DURING PRACTICE. ***HITTERS RESPOND TO STRIKES MORE CONSISTENTLY WHEN THE CORRECT VISUAL INFORMATION IS PROVIDED***.

STRIKE RECOGNITION TRAINERS (SRT)

SINGLE TRAINER

PICTURE TAKEN AT HOUSTON ASTROS TRAINING FACILITY IN FLORIDA

SINGLE TRAINER W/4 PROMPTERS

PICTURE TAKEN AT CLEMSON UNIVERSITY ON THEIR FIRST DAY OF VFLEX. WATCH OUT ACC.

TUNNELING WITH A 3 AND 5 FOOT SRT

PICTURE TAKEN DURING ADVANCED TRAINING SESSION AT A GEORGIA HIGH SCHOOL

TRACKING PERFORMANCE AND MEASURING RESULTS

Consistent progress in performance in the only way to validate and establish cause and effect correlations. A hitters personal progress while training on V-Flex can be easily measured and monitored using our app (SwingD) It is the baseline measurement tool we use to track a hitters performance. It is a beautifully designed app that is simple and easy to use. The real time data is a valuable tool for understanding how a hitter is perceiving and processing strike zone spaces. It gives coaches and players a unique view of pitch efficiency during practice and games. Correlations become apparent after a few practice and games. The features for collecting batting practice data are specifically designed for implicit training protocols. Which means **verbal instructions aren't given during implicit batting practice.** There are numerous setup and variations of spatial information that the hitters brain has to adjust to but they aren't cognitively engaging in mental approaches or exercises and they aren't working on hitting in certain pitch counts. They are simply seeing and processing different types of strike zone spaces. Space is expressed as ubiquity and counts have no influence upon it. Therefore counts do not determine if a pitch is a ball or strike, its location in a given space does. Basic ball and strike outcomes are tabulated using the SwingD app and **adjustments in training are made according to efficiency variations.** www.SwingD.com

STRIKE EFFICIENCY VS. BALL EFFICIENCY

Strike efficiency is not correlated with offensive performance. So, taking a strike has no impact on the %HH, number of runs scored, nor wOBA. This seems counter-intuitive; you want to swing at strikes not take them. However, it was obvious watching the film that many teams purposely take strikes especially early in the count. If a team's goal is to hit the ball hard, they need to swing at strikes. In this data set, 16% of all strikes swung at are hit hard while only 3% of all balls swung at are hit hard.

On the other hand, higher ball efficiency is associated with increased offensive performance. Ball efficiency (NOT swinging at balls) is correlated with a higher percentage of hard hit balls (r = .32), more runs scored (r = .23), a higher percentage of AB that resulted in a free pass (BB or HBP; r = .43), and a higher wOBA (r = .34). So, NOT swinging at balls greatly increases offensive performance. Actually, the data indicate that 12% of the total variation in wOBA is related to ball efficiency.

STRIKE SWINGING EFFICENCY

What is strike swinging efficiency? We want to know what percentage of the time a Vflex trained hitter swings at a strike. Please follow along with your handout (ECU Vs. Texas Tech). Because we are only measuring the result of the swing here is how the formula works:

Look at ECU first. They swung at 59 strikes and they swung at 9 Balls which gives us an SSE of 87%
Now Texas Tech. They swung at 49 strikes and they swung at 23 Balls which gives us an SSE of 68%
So how did we calculate SSE%. Take a look at the top of your hand out. Start with ECU. We will take the following stats: #SS(59) + #BS-Balls Swinging (9)= #B(64) minus #BT(55) gives us a total of 68 swings. Of those 68 swings 59 were used to swing at strikes and 9 were used to swing at balls. Our goal is to swing at strikes so we take the # of correct responses or SS(59) and divide that by the total # of swings (68) gives us the SSE 87%.

Why is this statistic important? Our studies show that the team with the SSE% wins the game over 90% of the time. So the solution to consistent success is simple!!!

SWING AT STRIKES

QUESTIONS?