# FRIENDS OF NVT

### OFFICIAL NEWSLETTER OF INNEURACTIVE



#### WHAT'S IN OUR LATEST ISSUE:

## INTRODUCTION

Welcome to the latest issue of the Friends of NVT Newsletter!

In this edition, we dive into two compelling applications of NeuroVisual Training (NVT): its impact on winning percentages for a division 1 college football coach and the transformative power of themed flashcards in working memory training.

First, we analyze the remarkable nine-year coaching record of a division 1 head coach, comparing seasons with and without NVT. The results reveal a significant association between structured NVT programs and higher winning percentages—highlighting how targeted brain and vision training can enhance sports performance.

Next, we explore how 10-word themed flashcards can be leveraged to boost cognitive function in both elderly individuals and athletes. From enhancing memory and slowing cognitive decline in aging populations to sharpening decision-making skills in high-pressure sports scenarios, this simple yet powerful tool demonstrates the adaptability of NVT techniques across diverse needs.

Whether you're an athlete, coach, or healthcare professional, this issue offers valuable insights into the science and strategies behind NeuroVisual Training. Dive into the data and tools driving peak performance and cognitive health with NVT! For more resources, visit Inneuractive.

- Introduction
- Can NVT Impact Wins and Losses? - Dr. Clark, Ph.D.
- "How To": Use Themed Flashcards for Working Memory Training - Robert Hasselfeld
- Announcements
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## **Can NVT Help Win More Games?**

The short answer is maybe. In this Friends of NVT newsletter we'll discuss the wins and losses for one Division 1 college football coach who has coached in 3 different schools over the past 9 years and summarize the wins and losses in the years where they did NVT and did not do NVT.

We will not name the coach in this article, nor will we name the teams he was the head coach in. We do not wish to be mirch or injure any team, coach or school. Our goal is to present information concerning the wins and losses in association with when a team has engaged in structured NVT training pre-season and in season, or not.

This coach has 9 years of experience as a head coach. He has coached 113 games in that time including bowl games and an abbreviated season during COVID. He has 75 wins and 38 losses, so he is a relatively successful coach. Four of those years he had NVT as part of the training for the football players or 51 out of the 113 games.

In the years where he had NVT he had 44 wins and 7 losses. In the years without NVT he had 31 wins and 31 losses. That is an 86% winning percentage with NVT and a 50% winning percentage without NVT.

There is a statistically significant difference in percent wins with NVT compared to without NVT with a Students T – test value of 0.0036. This suggests an association between NVT and wins.

We believe that not all brain training or vision training is NVT. We have published before that NVT covers three pillars of NVT, Eye discipline, ocular motor and brain training. We also have shown that NVT leads to improved performance parameters such as Depth perception, Saccadic eye movement, short term memory and reaction times. These changes have been associated with improved sports performance, such as improved batting average and improved football defensive performance parameters. Improving proximal NVT metrics appears to be associated with improved distal metrics such as wins.

The NVT that we did with this coach's team was about 3 weeks in duration prior to the beginning of season. During the football camp. NVT was 5 or 6 days per week for about 25 minutes per session. There was a maintenance phase during the season of 20 minutes once per week the day after the games. The NVT was performed in small groups, often in position groups. When practicable some position group specific activities were done to aid those players in those positions. For example, defensive backs might do jump drills on the light board while offensive linemen might do fast hands at body level. Quarterbacks might use the light board to train their internal clock appropriate to the time in the pocket. These activities match, to an extent, the sports specific requirements faced by these players. We believe that the voracity of the years of NVT data compared to the non-NVT data seen in this report is highly suggestive of NVT playing a role in wins and losses. Obviously, the coaches play a significant role in wins and losses. Thus, if this study is only looking at one coach his consistently winning seasons with NVT and poorer record without NVT should be taking into consideration regarding NVT's role in wins and sports performance enhancement.

This summary of NVT being associated with winning percentage for a single Division 1 coach is supporting evidence of the benefits of NVT for sports performance enhancement. Much more work and research is needed to establish a causal relationship between NVT and wins or NVT and sports performance enhancement. Notwithstanding NVT is emerging as being beneficial in the sports medicine industry. We also caution that some authors have claimed to have performed vision training or NVT as part of a sports performance program, with mixed results. NVT is designed and structured to have benefits on the field of competition and is often distinct from some claims that may look similar but are wholly inadequate. Not all performance enhancement training is created equal.

## **How to Use Flashcards for Working Memory Training**

Flashcards are a simple yet highly effective tool for enhancing cognitive function and processing skills. At Inneuractive, our NeuroVisual training incorporates a wide range of flashcard content, including math, spelling, homonyms, antonyms, shapes, and more. Today, we'll focus on 10-word, themed flashcards—versatile tools designed to engage the brain through structured call-and-recall exercises.

Whether the goal is to maintain mental sharpness in elderly individuals or enhance the split-second decision-making skills of athletes, flashcards are an adaptable method that caters to diverse needs.

For elderly training sessions, the focus is on cognitive preservation and improvement. Aging individuals often report memory lapses, leading to emotional distress and insecurity. Themed flashcards related to everyday categories—like fruits, animals, or colors—offer a familiar and approachable framework that makes the exercise enjoyable.

Inneuractive's Neurobiks program leverages 10-word themed flashcards as both a working memory and team building exercise throughout each class. Neurobiks sessions combine both brain and body activity, but when focusing on the cognitive aspects, these exercises can enhance memory, delay cognitive decline, and improve the processing of visual and auditory information—key factors in maintaining independence and quality of life.

In the realm of sports performance enhancement, flashcards take on a more dynamic role. Using themes tied to the athlete's sport—such as positions, strategies, or play calls—sessions can simulate game scenarios without taxing the body. This method trains athletes to process information faster, respond to cues under pressure, and maintain focus during high-stakes moments.

A classic example of leveraging working memory in sports comes from tennis legend Andre Agassi, who famously decoded Boris Becker's serve by observing his tongue movements. Becker unintentionally revealed the direction of his serves with subtle tongue motions, and Agassi's ability to notice, retain, and act on this cue demonstrated working memory at the highest level.

Let's explore how to integrate these effective tools into a NeuroVisual or Neurobiks training session. While these sessions may differ in focus, the integration and methodology for using themed flashcards remain consistent.

#### **Step 1: Introduce the Words**

Begin the session by introducing a 10-word memory card. Choose a theme relevant to the session's goals—for example, everyday objects for elderly participants or sport-specific terminology for athletes. The participants can either read the words aloud or listen as the coach recites them. Repeat this process 2-3 times to ensure familiarity and comprehension. The goal is not to memorize perfectly in this phase but to establish a baseline understanding of the content and theme recognition.

#### **Step 2: Transition to Dynamic Exercises**

After introducing the flashcards, transition into other NVT exercises. These can include tasks like Marsden Balls, Zeus Light Board, Scanning Saccades, or Accommodation training. For example, an elderly patient might work on scanning using hart charts, while an athlete could engage in high-intensity reaction drills with auditory cues. These dynamic activities enhance focus, coordination, and engagement while temporarily diverting attention from the memory task.

#### **Step 3: Periodic Recalls**

At strategic intervals—such as during transitions between exercises or rest breaks—the coach reintroduces the 10 words. By revisiting the words periodically, we get the brain to do "memory loops."

Memory loops serve an important role in neuroplasticity by repeatedly activating neural pathways, strengthening synaptic connections, and encourage the formation of new connections, which enhances the brain's adaptability and learning capacity. Additionally, the periodic recalls provide subtle reinforcement of the long-format task without overwhelming participants. The NVT trainer should encourage the client to try to engage the brain loops for recall, but to avoid frustration. Giving hints can enhance the success and enjoyment of the task as well.

#### Step 4: Conclude with a Group Challenge or Recitation

At the very end of the session, bring participants together for a final attempt at recalling the 10 words. This can be done as a team-building exercise, where the group circles up and recalls the words one at a time until the list is complete. Or this can be done as a personal challenge at the end of an individual training session.

After the words are recalled or we've reached the limit of what can be recalled, the coach will discuss strategies used to remember the words and give words of encouragement to the participants that recalling all the words is not the goal, the goal is to exercise the brain and activate more neural pathways. This helps solidify the cognitive gains and adds an element of fun and accomplishment to the session.

Integrating 10-word themed flashcards into NVT and Neurobiks training sessions is both simple and impactful. For elderly participants, this approach can offer a path to improved memory and greater confidence in daily life. For athletes, it sharpens reaction speed and decision-making, providing a cognitive edge in competitive environments.

With minimal equipment and a thoughtful structure, this method can transform any training session into a multifaceted workout for the brain. Sports coaches can consider this for regular training sessions as well, giving athletes a long-format task throughout their daily training regimen. Whether the goal is cognitive preservation or high-performance enhancement, themed flashcards prove that small tools can create powerful results.

## **Announcements**

If you are interested in NVT soundbites, consider Brain Raes. Brain Raes are a short and focused summary of a single NVT topic. Brain Raes are on twitter (X) @clarkjf

Some of our upcoming issues will have articles about the Hercules system: <a href="https://www.youtube.com/watch?v=lbu5pBsduY0">https://www.youtube.com/watch?v=lbu5pBsduY0</a>. Check out the video to learn more and to be more informed about Hercules' reaction time and split attention exercises.

We encourage our Friends of NeuroVisual Training community to engage with these enriching resources. Your commitment to staying updated fuels the advancement of our field, and for that, we are sincerely appreciative.

Disclaimer: Nothing in this communication should be construed as a practice of medicine, an endorsement, or political action. The opinions are the opinions of the authors.