IF YOUR PLAYERS DONT LEARN
THE WAY YOU TEACH

THEN TEACH THEM THE WAY THEY LEARN

COACH SMARTER,
COACH EASIER
COACH BETTER

TUTOR:
YVES LATREILLE
International certified tennis-fitness-mental
Coach
Certified in motor motions préférences
Sports-tennis
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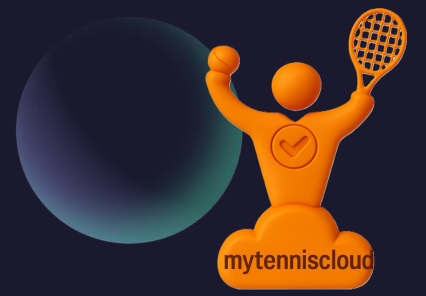
TENNIS COURSE SPECIALIST IN TENNIS INDIVIDUALIZATION COACHING

MODULE 1

MOTOR LEARNING

COURSE CONTENT TENNIS NATURAL MOTOR MOTION + COGNITIVES PREFERENCES



1 MODULE - MOTOR LEARNING PREFERENCES

2 MODULE - BALANCE

3 MODULE- VISION –EYE PREFERENCES

4 MODULE – UPPER BODY ROTATION + STABILITY PREFERENCES

5 MODULE – TECHNIQUE + TACTIC PREFERENCES

6 MODULE - PHYSICAL TRAINING PREFERENCES

7 MODULE – SERVE + RETURN PREFERENCES

8 MODULE-COACHING GUIDE PREFERENCES

9 MODULE-MINDSET+ MOTIVATION PREFERENCES

10 MODULE – PROFILING + HANDOUTS PREFERENCES

UNDERSTANDING NATURAL MOTOR MOTIONS AND COGNITIVES PREFERENCES

emphasize the physical capacities and natural qualities of an athlete (called motor profile) and to limit training that is far from the athlete's spontaneous qualities (called opposite motor profile or shadow zone) in order to limit the risks of regressing by inhibiting the athlete's natural qualities, which would result in a loss of self-confidence and an increased risk of injury.

- **Motor preferences encompass the unique characteristics that affect how players execute movements in tennis, influencing their performance.**

- **A preference is something that anagrammed in me that I know to do naturally Cross arms, fingers ,legs and they come from the Nervous System and how it face the Gravity it's what why the Balance is very important :**

We can start by observing the player as they are how they are moving naturally (ecologic mode) and find their natural skills and motricity;

From there let's coach then using EBP evidence base practice

- 1/3OF SCIENCE (biomechanics/ kinetic chain data)
- 1/3 OF STAFF EXPERIENCE (coach, fitness trainer, mental coach, parents)
- 1/3 OF PLAYER FEEDBACK (emotion, performance…)

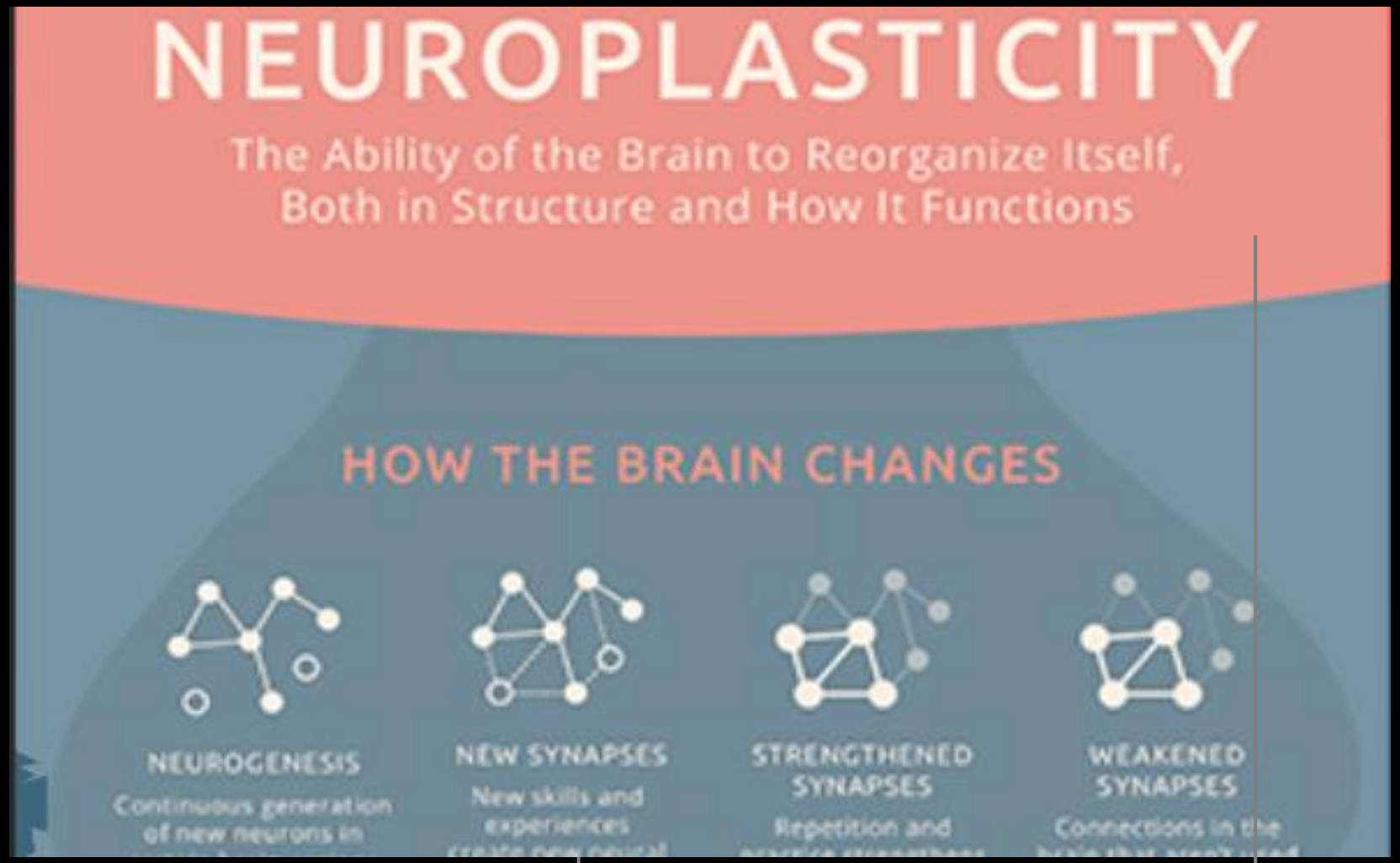
Using the approach players will move efficiency, not only efficacy

Difference between these too word is HUGE

The power of individualisation coaching

NATURAL MOTORS MOTIONS PREFERENCES ARE ACCELARATOR OF MOTOR LEARNING

1. **Economy**: managing body energy to last longer
2. **Eficacy** mean to control space ,direction of shots ,timing, control opponent
3. **Efficiency** mean great power and stability ,push your opponent back ,low risk of injuries



3 pillars

- ***REGULARITY***
- ***INTENSITY***
- ***PROGRESS***

- EVERYDAY THE BRAIN PRODUCE 700 NEW NEURONS IN THE HIPPOCAMPUS(MEMORY AND LEARNING)
- IT TAKE AROUND 66 DAYS TO AUTOMTATE A NEW BEHAVIOR OF EVERYDAY REPETITION+ SELF PRACTICE

REGULARITY / CONSISTENCY

THE BRAIN LIKE REGULARITY

NOW IS IT BETTER TO TRAIN 2 TIME A WEEK 2 HOURS PER SESSIONS ?

OR

IS IT BETTER TO TRAIN ONLY 30 MNS EVERYDAYS FOR 6 DAYS ?

THE REGULARITY IS BETTER + SELF PRACTICE

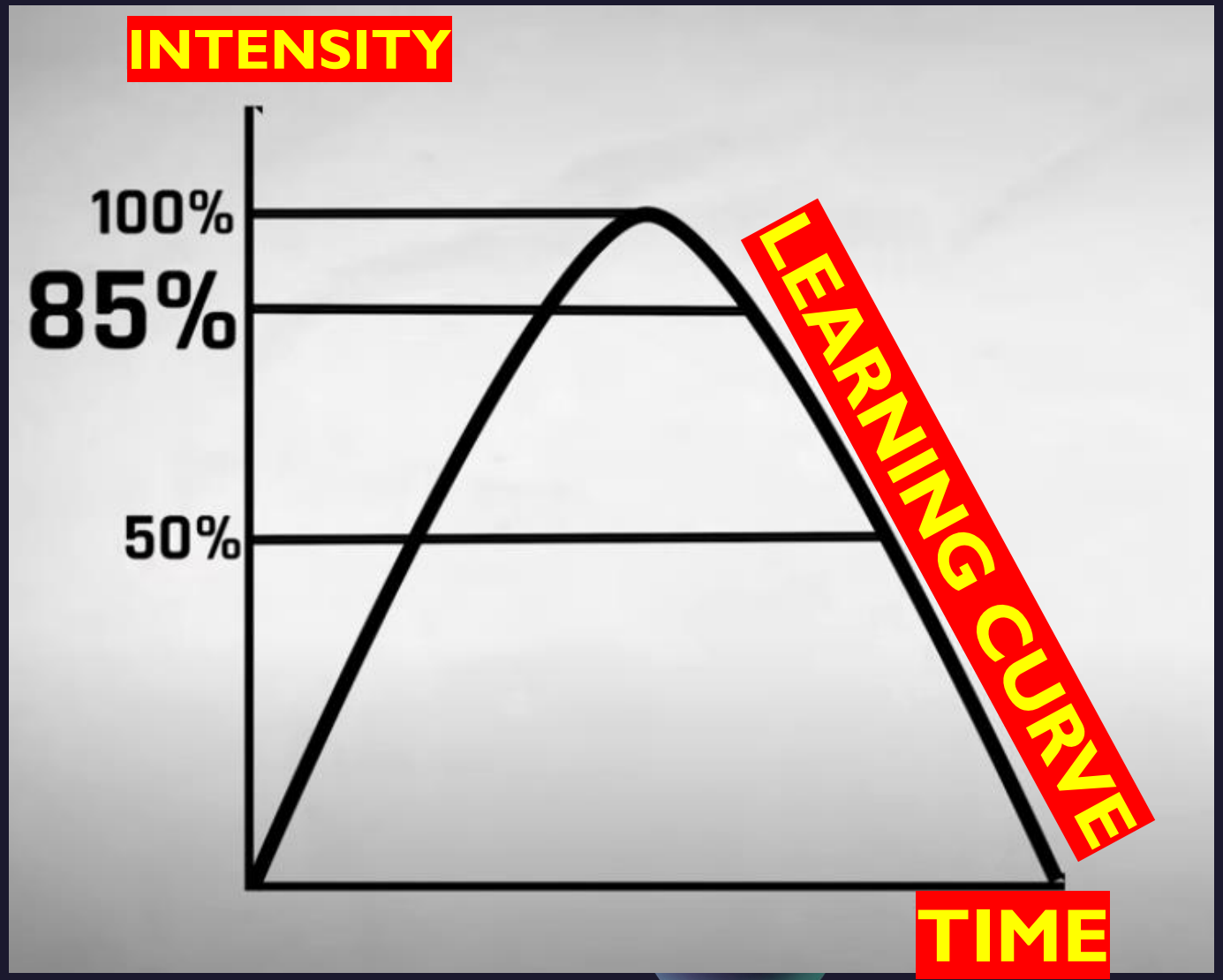
MONITORING PROGRESS
The power of measure

FEELING OF PROGRESS IS A VERY STRONG FACTOR

- **More powerful than money**
- **More powerful the recognition**
- **More addictive than success**

You can choose 5 criteria to measure your progress every week

- Reaction speed
- Footwork precision
- Shots precision
- Mental routine
- Mental calm


INTENSITY
100%
85%
50%
LEARNING CURVE
TIME

DRILL LEARNING PROCESS

TOO HARD / PANIC

8.5 TO 10

ZONE IMAGINATION / DREAM TO DO

STRECHT ZONE

85 % OPTIMAL ZONE OF LEARNING = DOPAMINE RELEASE

ADD 4% OF WORK LOAD PER WEEK

5 TO 7

LEARNING ZONE

WHAT I THINK I CAN DO

0 TO 5

TOO EASY / CONFORT ZONE

WHAT I KNOW TO DO

DO YOU REALLY UNDERSTAND W
THE PLAYER IN FRONT OF YOU ?

HOW CAN YOU YOUR PLAYERS TO IMPROVE QUICKLY AND IN A EASIER WAY ?

THE 3 WORDS TRADITIONAL COACHING PROCESS

- 1 HOW
- 2 WHY
- 3 WHAT

1 HOW TO HIT THE BALL THIS WAY !
YOU NEED TO DO THIS OR WHAT

Coach say

Coach say

2 WHY TO THINK TO HIT THE BALL THIS WAY !
YOU THINK AND FOCUS THIS OR THAT

Coach say

3 WHAT YOU DO TO HIT THE BALL THIS WAY !
YOU DO THIS RIGHT OR WRONG

THE 3 WORDS NEW COACHING APPROACH

- 1 WHAT
- 2 WHY
- 3 HOW

Coach ask

1 WHAT DO YOU THINK TO HIT THE BALL THIS WAY ?

- INTENTION
- EMOTIONS
- ACTION

Coach ask

2 WHY DO YOU HIT THE BALL THIS WAY ?

- POSTURE
- COGNITIVE
- MOTOR MOTIONS PREFERENCES

Coach ask

3 HOW DO YOU HIT THE BALL THIS WAY ?

- BIOMEC
- KINETIC CHAIN
- TECHNIQUE

IS THERE A MISSING LINK THAT MAKE MY PLAYERS TO STILL NOT LEARNING THE WAY I TEACH THEM ?

- OR STRUGGLE TO PERFORM BETTER ?
- OR SOMETHING I DON'T KNOW ?
- OR
- TO LEARN THE SAME MOVEMENT, I TEACH THEM FOR LONG TIME ?
-

Learning preferences how the best performers learn differently

. ***SETTING INTENTION***

- **BEFORE ANY EXPERINCE(training, drills ,exercises ,match)**
- **Ask "WHAT I WANT TO LEARN ?**
- **Or WHAT SKILL I'M focus ON BUILDING ?**
- **This question sets a mental filter (ASR-Google)making**
- **relevant information stand out , you program your brain**
- **To notice all relevant info what matter most.**

- ***REFLEXION***
- Post experience reflection turns thoughts into long lasting lessons.
- Its not just passive learning
- It's an active learning process
- WHAT DID I LEARN ?
- HOW CAN THIS APPLY TO THE FUTUR? WHY DID THAT HAPPEN ?
- research show that few minutes reflective
- at the end of the day/session
- Can have a *huge* impact on *learning and performance*
- Around 20 % better result

TO LEARN-TRAIN-AUTOMATE

You are unconsciously incompetent...so you need ***to learn!***

STAGE 1

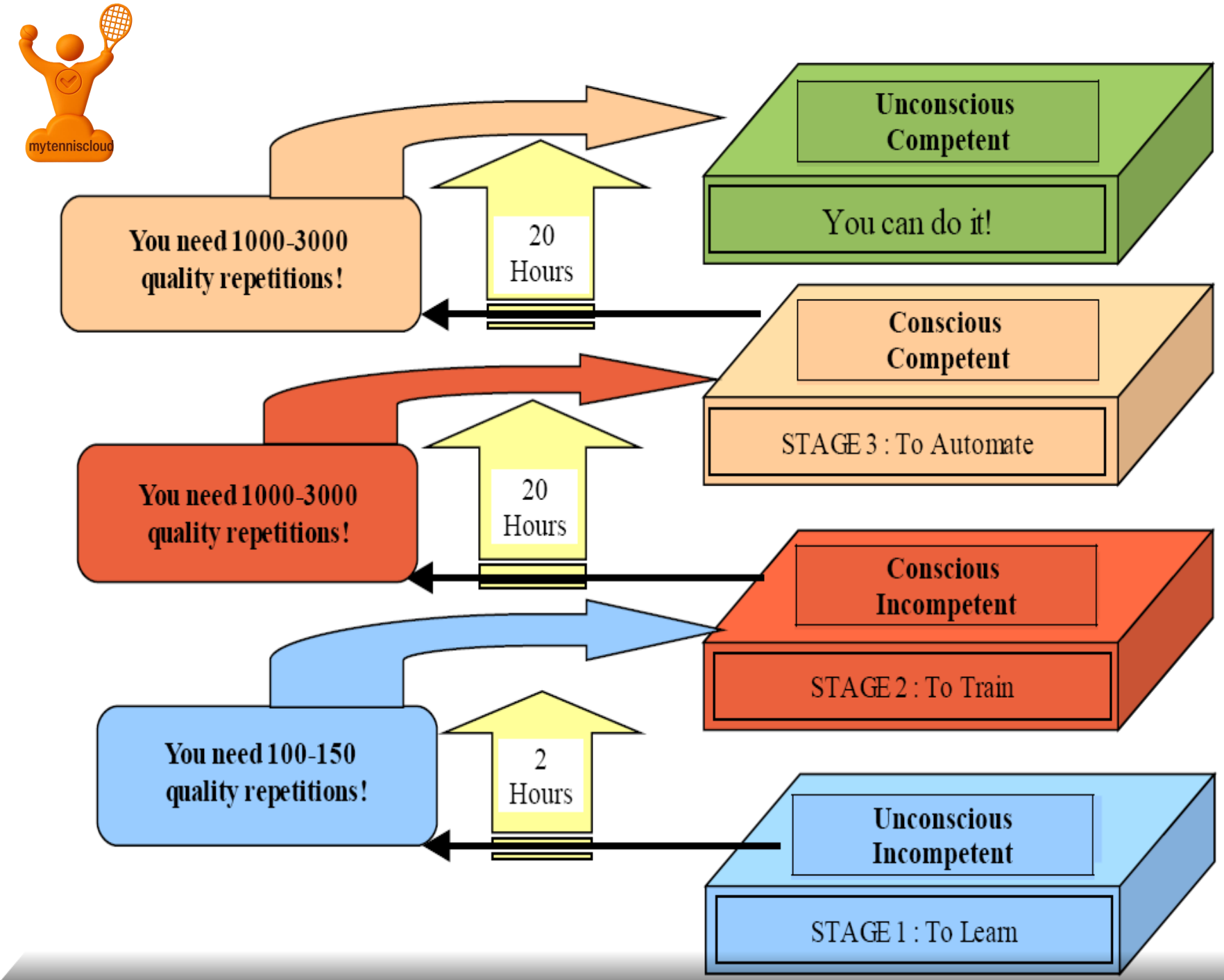
You are consciously incompetent...so you need ***to train!***

STAGE 2

You are consciously competent...so you need ***to automate!***

STAGE 3

You are unconsciously competent,you can now ***do it under pressure!***


mytenniscloud
Unconscious
Competent
You can do it!
You need 1000-3000
quality repetitions!
20
Hours
Conscious
Competent
STAGE 3 : To Automate
You need 1000-3000
quality repetitions!
20
Hours
Conscious
Incompetent
STAGE 2 : To Train
You need 100-150
quality repetitions!
2
Hours
Unconscious
Incompetent
STAGE 1 : To Learn

LEARNING CHANNELS PREFERENCES

A.  **(visual)**

"A picture tells more then 1000 words", is also very true for learning to play tennis! Demo's from the teacher are very important. Approximately 50% will be remember if you can **picture** the information, explanation and/or movements! This also enhance your visualizing skills!

Picture it! Try to use your mental skills to make a picture, look very focused at the **demo!**

C.  **(kinesthetic)**

Simplified this means to **feel** the movement. Clearly it's important for playing tennis to feel the stroke, so we can correct it, if we have to! Together with **'picture it'** and **'keywords'** you get a tremendous wealth of feedback combining the three learning styles!

Feel it! This tool is amplified with VIPs or 'very important points' for enhancing the **feel!**

B.  **(auditory)**

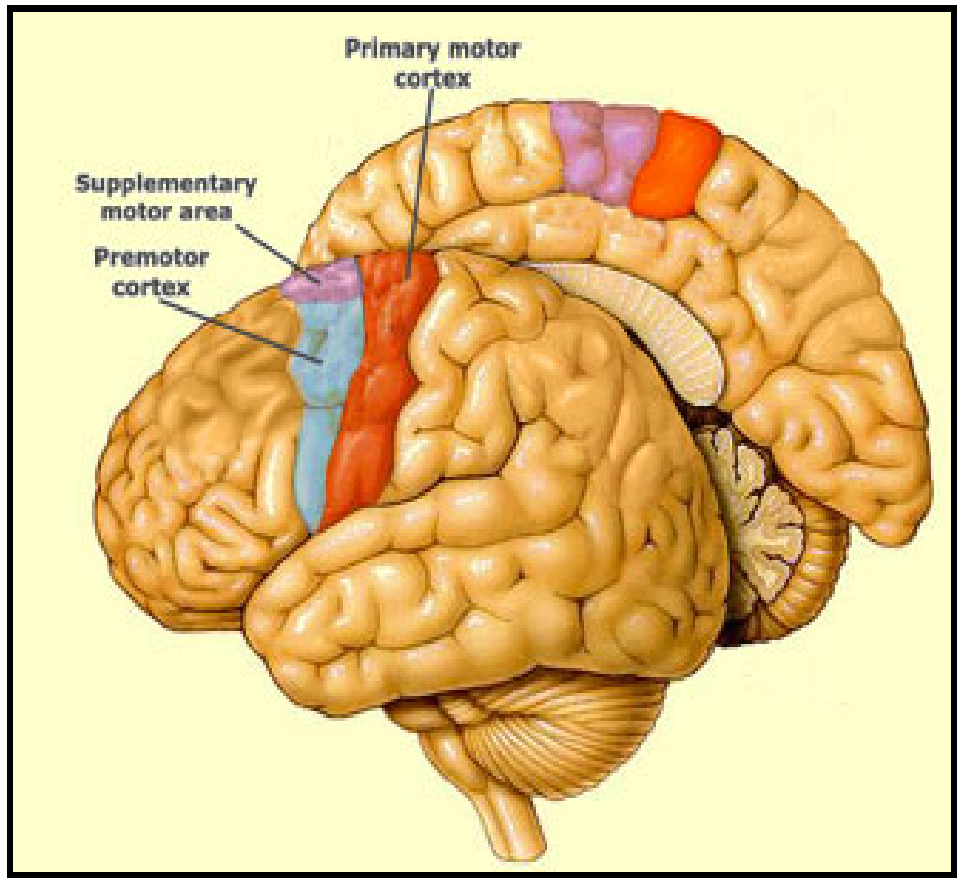
Hearing an explanation results in only **7%** remembering. But **'keywords'** combined with a **demo** is extremely powerful and raise it to **70%!**

Keywords! These are the **summary** of the picture for easy remembering and triggering your visualizing skills!

The Incredible Power of Visual Learning

Here is an excerpt from an article that just appeared in Scientific American Mind. It's from the April/May 2006 edition:

"Humans See, Human Do - Brain Cells That Mirror Actions We See Are Key to Learning..."



"[Mirror] neurons are scattered throughout key parts of our brain -- the premotor cortext and centers for language, empathy, and pain -- and fire not only as we perform a certain action **but also when we watch someone else perform that action**. These neurons have been studied in the past for their roles in movement and other functions. Now, however, researchers are examining them intensely for what seems to be an additional function -- the way they fire in response to something observed. The discovery of this mechanism, made about a decade ago, suggests that everything we watch someone else do, we do as well -- in our minds. At its most basic, this finding means we mentally rehearse or imitate every action we witness, whether it is a somersault or a subtle smile. It explains how we learn to smile, talk, walk, dance, **or play tennis**."

Scientific American Mind
April/May 2006
P. 23-24

THE 4 STEPS ON THE COURT VISUALISATION TRAINING
3 REPETITIONS FOR EACH STEP USING
THE RIGHT INTENTION-EMOTION-ACTION

STEP 1 - WATCH A VIDEO
NORMAL / SLOW MOTION SPEED OF THE ELEMEBT TO WORK ON

STEP? 2 – ASSOCIATE VISUALSATION
CLOSE YOUR EYES AND VISUALISE INTERNALY YOURSELF DOING THE MOTION
FEELING THE MOTIONS AND SPEED OF THE MOTION

STEP 3 – DISSOCIATED VISUALISATION
CLOSED OR OPEN YOUR EYES VISUALIZE YOURSELF IN FRONT OF YOU DOING THE MOTION

STEP 4 – HIIT THE BALL WITH THE RIGHT INTENTION –ACTION
THEN REPETE THE CIRCLE

EXPERIMENTATION

Is that human learn bast when they are given
The opportunity to Experiment and Explore an Idea
In the absence of micro-management
or rot repetition

Also, this promotes individual imitative
which will become
Very significant during a match.

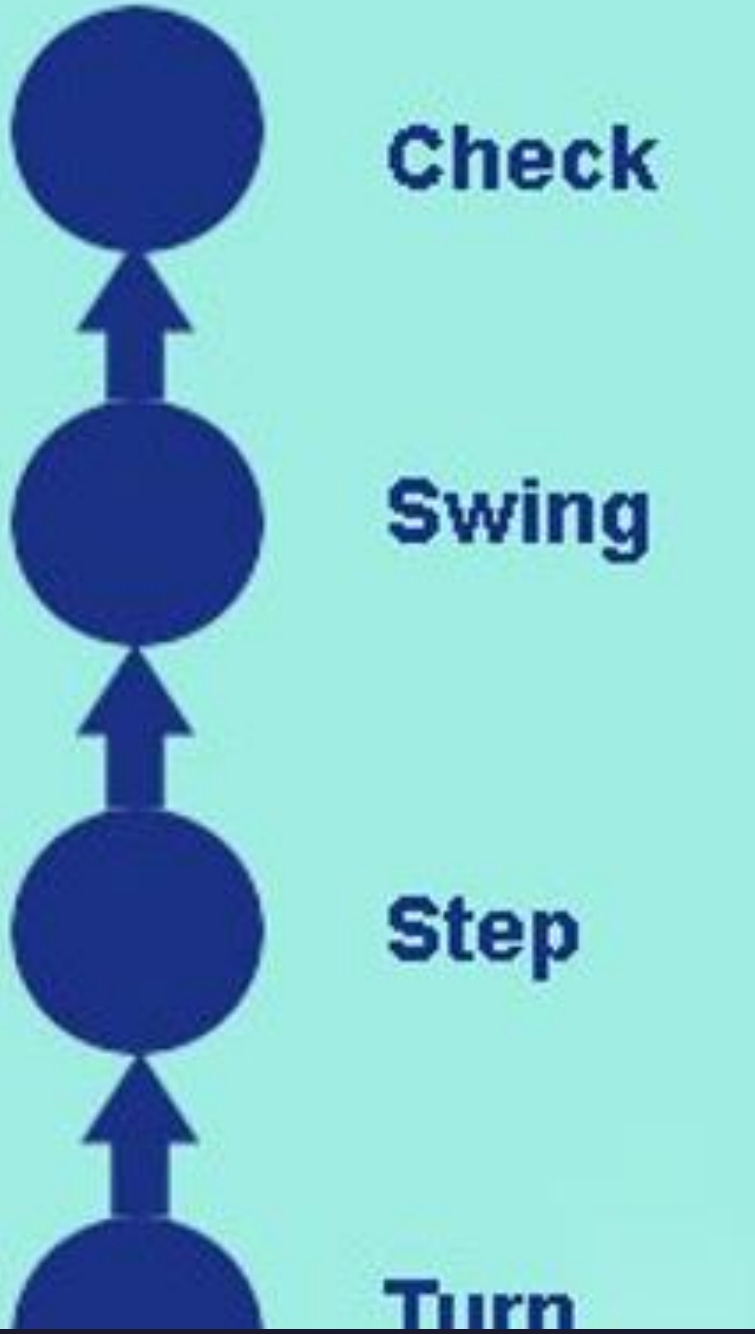
COMPONENTS BASED LEARNING

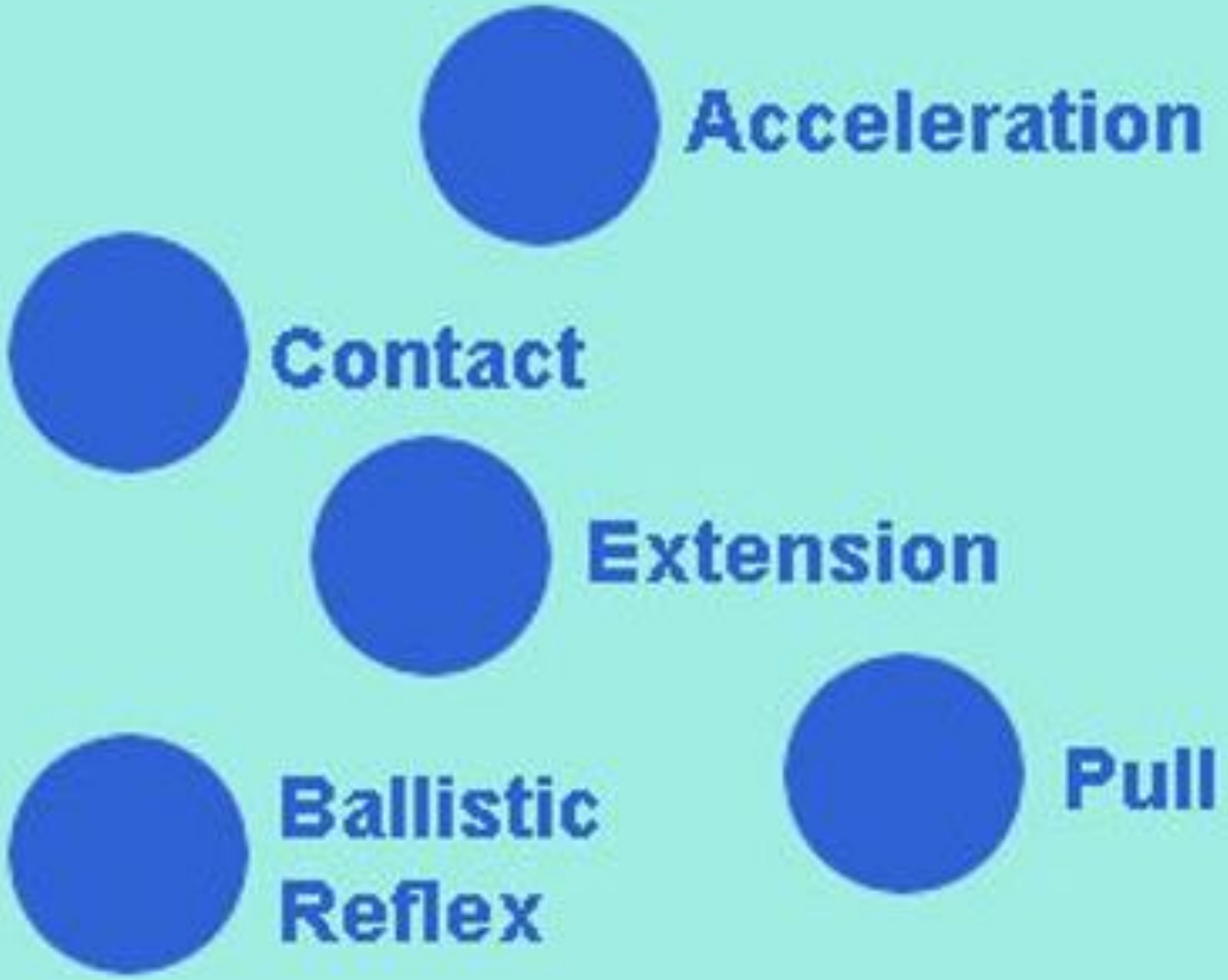
IS THAT A SKILL IS BEST BROKEN DOWN INTO SAMPLE UNITS THAT CAN BE EASILY CONSUMED AND RETAIN BY THE BRAIN AND RESUSED IN A VARIETY OF CONTEXTS

Template based instruction is a method by which an entire stroke is taught as a single unit

A template is a patterned structure that is used as a guide to replicate copies of a desirable or useful object, idea, even a tennis stroke as suggested by the figure below..

In template-based instruction, the full stroke, from takeback to follow through, is taught as a single unit



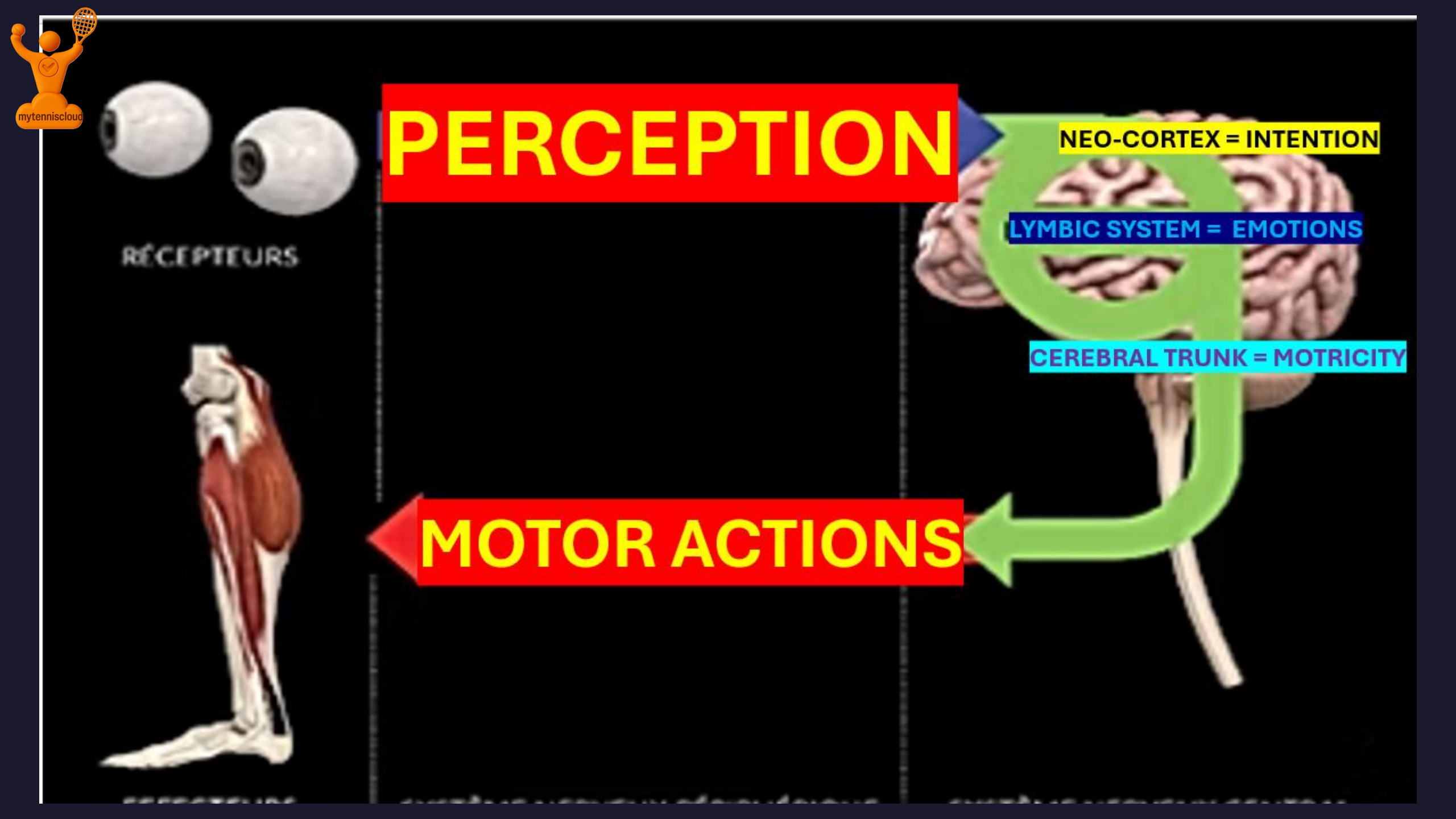


Children develop the components of actions, such as walking, through

We learn by positive reinforcement
Its very powerful so
We can reinforce
e their natural motors motions

To improve and get better player.

TELL THEM WHAT THEY GOOD AT !!!
  0,3 % OF IMPROVEMENT EVERYDAY = 100% 1 year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PERCEPTION
NEO-CORTEX = INTENTION
LYMBIC SYSTEM = EMOTIONS
CEREBRAL TRUNK = MOTRICITY
RÉCEPTEURS
MOTOR ACTIONS

WWW.MYWINNING-MINDSET.COM

PRICINPLES OF INTENTION –ACTION MIND / BODY COACHING

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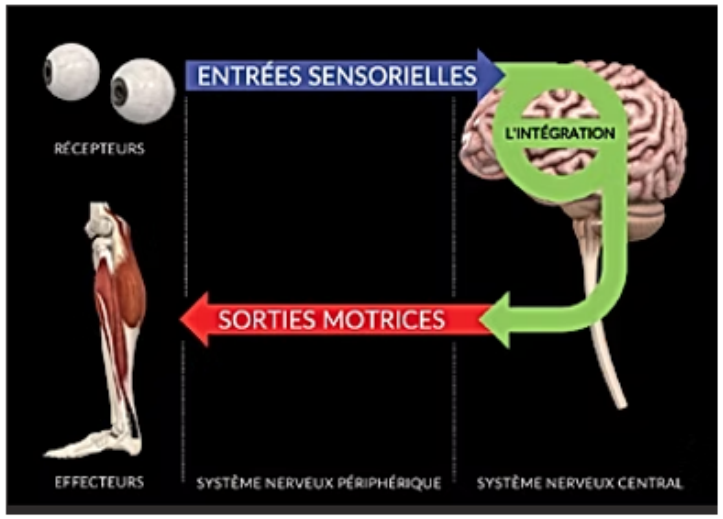
INFO PROCESS HEAD TO BODY



WE LOOK TO SPEAK TO :

1_ **CEREBRAL TRUNK (SURVIVAL)** BALANCE/ DIFFICULTY

2 _ **LIMBIC SYSTEM (EMOTI0NS)** PLEASUR / PAIN ,SENS

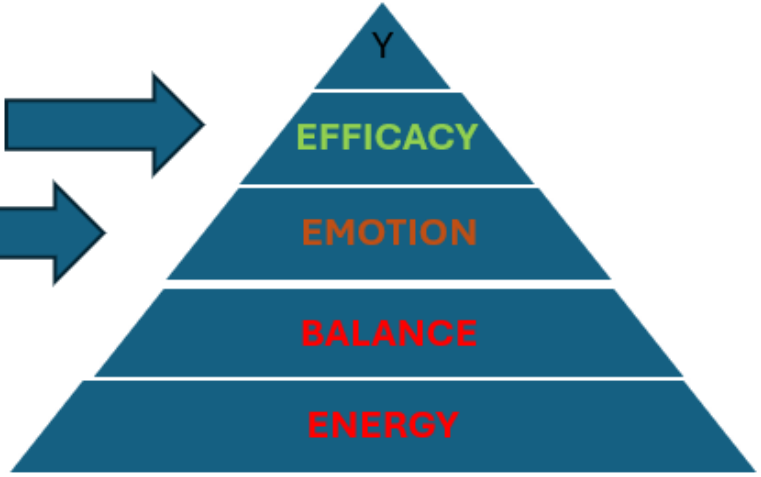
3 _ **ASSOCIATIVE CORTEX (AWARNESS)**
EXPLANATIONS,REPRESENTATION(PICTURE),GOAL

INTENTION / MAKE THE BALL FLY HIGH 3 METERS OVER THE NET
EMOTION / BE LIGHT , REBOUND
ACTION/ WEIGHT IN FRONT

ASSOCIATIVE CORTEX

LIMBIC

CEREBRAL TRUNK



MATCHING PROFILE TYPES OF EXCERCICES

AERIAL TYPE

- 1- ELONGATION
- 2- STIFFNESS
- 3 -REACTIVITY
- 4- PROJECTION

GROUNDED TYPE

- 1 – MOBILITY
- 2- STABILITY
- 3- STRENGHT
- 4 - PROPULSION

COACHING QUESTIONS TO HELP MOTOR LEARNING

Clarification

What do you mean by what?

Probing assumptions

What are you assuming will happen ?

Exploring perspectives

How would your opponent see that point ?

Implications

What will happen if you lost this point ?

Probing reasons

Why did you make that decision ?

QUESTIONS
HELP PLAYERS TO BECOME BETTER AT :

- DECISION MAKING
- SOLVING PROBLEMS
- REFLECTIVE LEARNER

Meta-quetions

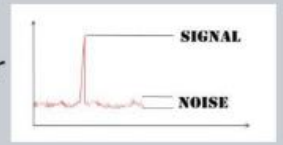
What did this question help you realise?

DIFFERENTIAL LEARNING CHALLENGES CONVENTIONAL COACHING
BY REJECTING THE NOTION OF A "CORRECT WAY" TO PERFORM A SKILL.
INSTEAD,IT EMBRACE "VARIABILITY" AND ENCOURAGE PLAYERS TO ADAPT TO DIFFERENTS CONDITIONS

Differential Learning (DL)

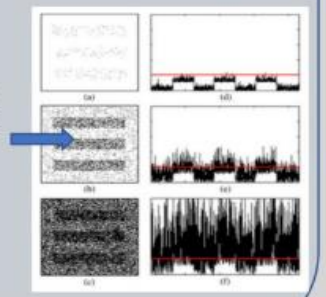
Goal

Strengthen the signal (i.e. the unknown movement pattern for the task) embedded in the internal noise within the motor system..



..by adding external noise (i.e., variability in practice conditions)...

..via a process called *stochastic resonance* whereby the optimal amount of external noise constructively strengthens the signal.



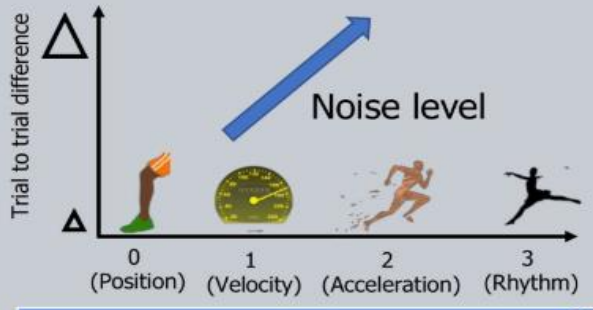
Schollhorn (1999)

Manipulations

Find optimal noise in practice conditions for the individual athlete depending on:

Response to challenge

Increase noise level with both type of variation and trial-to-trial difference...



Exercise
1) Receive ball w/ chest (l. arm up, r. arm straight lateral)
2) Receive ball w/ chest (head nodding forward & backwards)
3) Receive ball w/ chest (circle hips, both arms straight lateral)
4) Receive ball w/ chest (feet crossed, accelerate upper body)

Results

↑ Performance

- Beckmann & Schollhorn (2003)
- Savelsbergh et al (2010)
- Schollhorn et al (2012)

↑ Creativity/Tactical Behavior

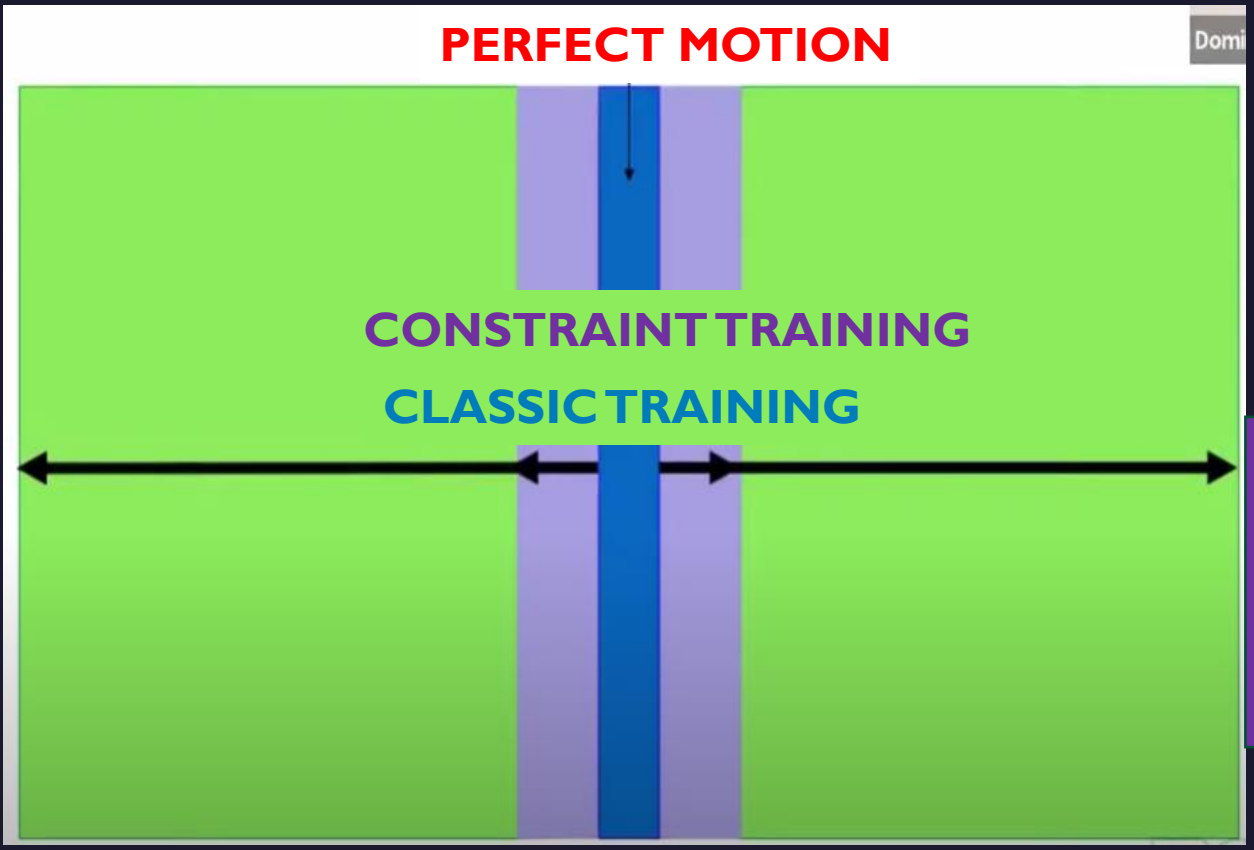
- Santos et al (2018)

↑ Brain EEG Low Frequency Activity

- Henz et al. (2018)

perceptionaction.com

DIFFERENTIAL LEARNING



WE CAN'T REPETE THE EXACT SAME MOTION

REPETITION WITHOUIT REPETITION OF THE SAME MOTION

VARIABILITY IN TRAINING BRING STABILITY IN COMPETITION

THE BRAIN IS ABLE TO PRODUCE ONLY MOVEMENTS SITUATED BETWEEN 2 EXTREMES MOVEMENTS THAT ARE ALREADY INTEGRATED

VARIABILITY

I Define rules

- give a precise thing to do
- hit a target

- No task how to do it

- No judgement

- Finish with Normal shots to verified
- how things become easier

VARIABILITY

- ***2 ON THE PLAYER***

In his position

- **Toward the incoming ball, close, far , mid way with an angle, on 1 foot)**

- **IN MOVEMENT (walking, balancing, bouncing, or in static**
- **Moving laterally, backward, foreword.**
- **Grip/ HAND POSITION, (1 hand, mid grips, strings hand)**
-
- **Modified stroke , bigger , shorter, higher ,lower takeback)**

VARIABILITY
REPETITION WITHOUT REPETITION

- ***Hit 3 BALLS AND CHANGE SITUATIONS FROM TARGET/PLAYER SHOTS/TRAJECTORIES / MAKE PLAYERS ADAPT to all variations***

  Every 3 shots feeding change balls/bounces types

- Spin, speed, height
- Position Behind baseline, on and in the baseline
- From center, left ,right side of the court
- Change target direction and spaces ,long, short , fast ,slow balls
- Player hitting patterns pf play
- Player hitting shots types and stances

Forehand stroke variability

Shoulder angular movement- *Consistent*

Elbow velocity & acceleration - *Variable*

Wrist velocity & acceleration – *Variable*

Racket orientation at impact *Consistent*

(Knudson, 1990)

Summary: Racket position is **relatively constant** at impact, however, how the racket gets there is variable

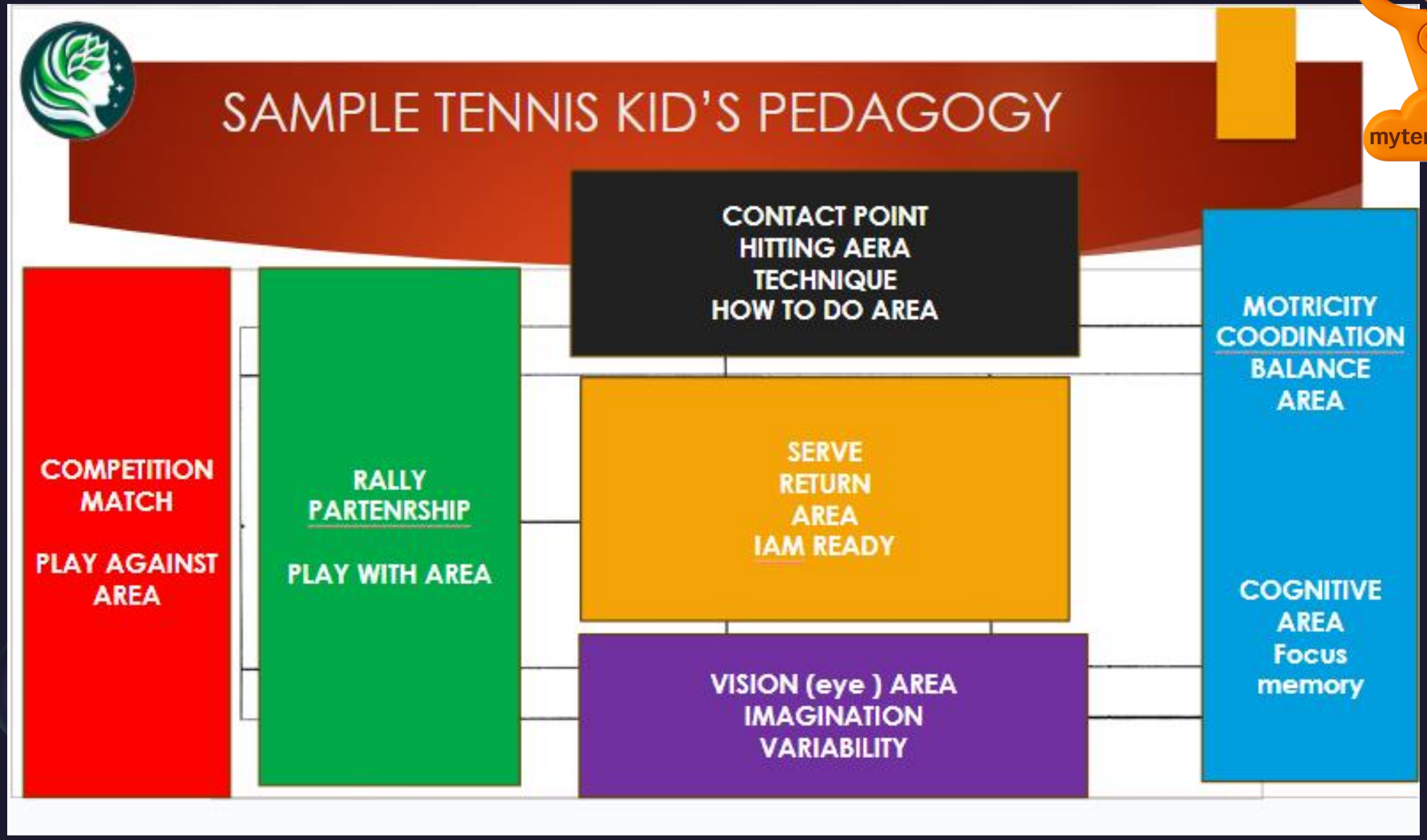
Forehand stroke variability

A key feature through building, development and junior phases

1970-80s - Skilled performance was thought to be totally consistent - every repetition, a mirror image of the previous; the simple message during stroke development was to repetitively practise the same action.

Today - Variability is an essential feature of human motor behaviour, affording the necessary flexibility and adaptability needed in skilled performance. (Davids et al., 2006)

MINI TENNIS SAMPLE LEARNING AERAS



THANK YOU AND QUESTION TIME