TheElite Training Group track club

Expanding the area of what is possible

In Track & Field Distance Running & Competent Self-Care in medicine and psychology

www.theetgtrackclub.com

TheETG Academic Training

A major part of TheETG mission is to expand the area of what is possible in competent self-care in medicine and psychology. TheETG's primary method of achieving that is to proliferate applied science based information by way of $free packets containing plain language info for anyone seeking to move themselves or others forward in these areas.

As you continue to acquire and apply more information you continue to expand the area of what is possible.
Data-less conclusions founded upon faulty assumptions are the mother of all screw-ups. They lead to human belief systems that quickly get set in stone. Put data ahead of dogma. Follow the data -not- the crowd.

TheETG packets attempt to address the following;

".....the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts."
[Journal Of The American Medical Association...Volume 302 #1..July 1, 2009...page 89 - 91]

"Not enough doctors adapt appropriately to new scientific findings.....An insufficient number of medical faculty members are well prepared, effective educators, and too few medical schools prepare their students for a lifetime of learning and change."
[J.Hilliard,et al. -- The Lancet -- Volume 385 #9969 -- February 21, 2015 -- page 672]

"….takes an average of 17 years to translate 14% of original research into benefit…..average of 9 years for interventions recommended as evidence-based practices to be fully adopted."
[M.Tinkle, et al -- Dissemination and Implementation -- Nursing Research and Practice -- Volume 2013]

".....1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."
[Nature Medicine -- Volume 12 #9 -- September 2006 -- page 984 - 985....News In Brief]

"It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States."
[Centers For Disease Control -- 2015]

"Most drugs are only effective for a small percentage of people who take them."
[Michael Leavitt -- U.S. Secretary of Health & Human Services 2005 - 2009]

".....A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence."</p>
[President Barack Obama -- Speech to the American Medical Association -- June 15, 2009]

"All the good things....they don't teach us in medical school, because the drug companies pay for our education."
[Dr. John Sessions M.D.]

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Our Kindergarten thru college...educational system.

Is one where we blindly hope that millions of folks live in households where self-worth is synonymous with good grades, and thus everyone behaves accordingly in school regardless of curriculum content or quality of presentation.
-- where we value grades, diplomas, and degrees over critical thinking, creative thinking, and problem solving ability

-- Where we want you to read, acquire, and understand large quantities of information without teaching you learning skills [reading velocity, photographic memory, audio recording memory]

-- Where we want you to sit at a desk for 6 hours a day though we know that physical activity is required for normal brain function in information acquisition, storage, and recall ability.

-- Where most of the information we expect you to acquire is information you can use only on a trivia TV game show, and we'll spend $Billions testing you on it and prepping you for those tests, and spend hours arguing about whether or not we should use the standardized tests and teach to those tests

-- Where the cliché phrase, a "well rounded education" is a code phrase academicians use to put lipstick on a pig

-- Where the letters "AP" are a badge of honor for teenager and parent that many colleges choose to ignore, not a class offering information you'll need to know in life or on your future job

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ETG Model Of a Fully Functional

School Curriculum

(grades 1 -12)

Mission: Provide students with a better curriculum of empowering ---applied--- information

[non-applied "stuff" in school curriculums is **–the-** problem with traditional education, producing good students who know a lot about nothing that matters]

-- Learning skills
- learn applied aspects of memory capacity and capabilities, memory development, **reading speed** improvement, reading comprehension
- teach the applied skills.....**logical thinking**, problem solving, **learn to identify underlying mechanisms**, irreducible primaries
- learn to form rational arguments, play games of logic

-- Human Psychology
- self-image psychology (read.....Stephen Covey, John Bradshaw, Shad Helmstetter, Phil McGraw),
- outcomes of brain cell overwork//overwhelm, Family Violence, Emotional Abuse, Sexual Abuse, psychopath behavior

-- Communications
- writing, public speaking, computer skills, applied languages [only words one would use at school.....Spanish, French, German, Japanese, Chinese, and Arabic

-- Cooking Skills
- protein foods, carbohydrate foods

-- Farming Skills
- vegetable farming (potatoes, tomatoes, lettuce, cabbage, soy beans)
- animal farming(chickens, cattle, pigs, sheep)
- fruit farming (oranges, apples, pears, peaches, bananas)

-- Environmental Biology
- animal habitats ecosystems, food chains applied plant biology

-- Physics
- applied electricity, applied electromagnetism, gravity, cosmology
- function of; cell phones, radio, television, microwave, telephone, fax, x-ray, MRI, CAT /PET scan, copiers

-- Exercise Physiology
- applied gene transcription and translation, long term effects of exercise training on human cellular function
- applied Exercise Nutrition [antioxidants, applied function of protein, applied function of carbohydrates],
- Applied function of Immune System, etiology of cancer...heart disease...and aging

-- Sport
- activity classes (aerobics, strength training, conditioning, flag football, basketball, soccer)

-- Physical Therapy
- applied anatomy, sport injury etiology and prevention
- Applied Intro to McKenzie Method

-- Math
- applied.....addition, subtraction, multiplication, division, percentages & fractions, applied metric system

-- Finance
- taxes (federal, state, sales, property), tax filing, interest, investment, insurance, mortgage

-- History
- American Indians, North American Slavery, European Immigration, U.S. Government, U.S. Industry

-- Government
- structure & agencies, budget & debt, function of.....Senate, House, Governor, Mayor

-- Law
- court system structure & hierarchy (criminal, civil) (state, federal)
- applied aspects of the constitution
- basics of.....torts, trademarks, patents, copyrights, antitrust, contracts, labor law

-- Criminal Justice
- criminal law, prison system, criminal court procedures

-- Electives
- literature, theatre, art, music, orchestra, band, foreign languages, **applied** Algebra, **applied** Trigonometry, **applied Geometry**, **applied** Calculus

Academic Training

MEMORY DEVELOPMENT

The ELITE TRAINING GROUP

Positive Programming

Self Image Development as it pertains to Quality of Memory

Photographic Memory Development

Recall Photo Training (create still pictures)

- the way home
- your apartment/dorm room
- your bathroom

Photo Context Intake Training

Organization/file folder establishment, create picture of;

- subject/topic title or label
  for association purposes
- main information intake
- supporting information intake

Aural Recording Memory Development

Vocalization awareness and reduction

interfers w/replay of recording

Intake Training

sentences of information taken in aurally,
then play back as taken in, no vocalization

List Learning/Memorization

Cluster 4 - 7 items in the list by similarity
Create a file folder in the brain by assigning a heading to each cluser

Deepening of Information Processing

Create visual images
Make associations of new information to information you already have
Ask questions

Stress can cause electro-chemical block of neuro-receptors in the brain responsible for memory storage

Academic Training

Listening Skills
Note Taking Training
Learning Session Protocol
The ELITE TRAINING GROUP

Listening Skills

Active Listening

- verbally ask questions to instructor
- make associations w/past information
- judge content, not delivery
- listen for ideas, not facts

Attention

Your brain works faster than the lecturer can talk thus there is a lot of dead time between words and sentences

This requires the listener to occupy that time with topic related cognitions

Anticipate what the lecturer is going to say next

Make associations of new information to information you already know

Suppress internal noise, block attention to external noise

Note Taking Training

[Quality of note taking is limited by information processing ability]

Goals of Training

Improve information processing abilities by improving active listening skills, note taking processes, and metacognition awareness

Cognitive File Folder Establishment (for memory association development)

- write subject/topic at top of paper
- take notes in outline form w/main information followed by supporting details

Learning Session Protocol

Information review (reviewing class notes, etc.)

- focus on making associations of new info. with info. you already know
- visualization review of class lecture -- use cognitive interview protocol
  - recreate the context and environment in which the lecture took place
  - recall the lecture from the beginning and work through to the end
  - then recall the lecture from the end and work back to the beginning
- deepen processing of information
  - ask questions, create images, make associations of new to old info.

Periodization of sessions

- 4 x 30-40 minutes w/10-15 minute break periods
  - break periods -- food, water, physical movement
- take 3-4 hours between sets of sessions
  - change venue/environment

Use music to occupy and focus brain, which works faster than info. can be taken in

Logical Thought Process Develoment/Critical Thinking Skill Development

Positive Programming

- logic oriented
- solution oriented

Skills

- identify, define, and clarify the problem
- clarify the goal
- develop solutions, visualize implementation, identify required modifications to the plan

Academic Training

Reading Speed

The ELITE TRAINING GROUP

* Visual Field Expansion
  - put short sentences on paper
    - gradually expand length of sentences
  - draw lines on pages of books
    - start short, gradually lengthen
  - repeated readings

* Word Recognition Rate
  - slide projector w/speed control (words per minute)
    - long term training = 2-3 times per week
      - 3 x 3 minutes w/3 minute rest
  - suppression of inner-noise & vocalization reduction
    - you can read faster than you can talk, vocalization will slow word recognition rate, read at normal speed focusing on visual word recognition, reducing aural input
  - glancing work
    - road signs (informal training)
    - sentences (short) on paper, fixate, look away, fixate
  - repeated readings
    - read the same paragraphs repeatedly to increase word recognition rate

* Reading Comprehension
  - periodic verbalization of concepts
  - cognitive mapping during and/or after your reading
    - generate summary sentences to deepen the brain's processing of the information
    - map on paper, map w/visual imagery
      - generate phrases on the topic
      - organize the phrases into categories by placing the topic at the center of a circle on a piece of paper
      - place main ideas of the topic on extensions from the center of the circle
      - place supporting details in extensions from the main ideas
  - identify topic of each passage as you go
    - this creates a file folder in memory where the information will be stored and thus can easily be retrieved and blended (association) with information in other folders as well as with information taken in during future information intake sessions

* Attention
  - requires minimization of internal noise and reduction of attention to external noise
  - need to be relaxed to reduce environmental and internal stimuli intensity
    - let go of cognitions related to daily activities
  - use low volume, low intensity music to occupy subconscious sensory areas of brain

Example of Reading Rate -- Time Expenditure

example assignment - 200 pages of a book [we assume 35 lines per page, 20 words per line, 140,000 words total]

Reading rate in words per minute = 180 wpm	Time expenditure = 13 hours
Reading rate in words per minute = 240 wpm (about the national average)	Time expenditure = 10 hours
Reading rate in words per minute = 600 wpm	Time expenditure = 4 hours
Reading rate in words per minute = 1200 wpm	Time expenditure = 2 hours

Learning Sciences

Learning centered approach --- necessities

- Choice
- Responsibility
- Challenge

mentor/instructor -- connect with the learner on a personal level
Discipline reduction -- redirect the learner's attention to something productive rather than stopping them to chastize/punish. Redirect their attention.
Self-Efficacy and confidence affect math/reading performance. Teaching needs to be based on this. The teacher is a "learning coach"---- takes psychology of the learner into account.

Facts & Stats

- Listening to oral reading improves reading success, especially at an early age.
- Readers spend more time per word than they do longer passages.
- The density of highlighting is much higher for shorter passages.
- Students tend to have a restricted range of study tactics and use only one for most learning tasks regardless of subject matter.
- People who underline in textbooks take ~66% longer to read the same amount of information as people who do not.

Reading & Comprehension/recall

Advance organizers
Prior knowledge improves comprehension of text. Readers may fail to comprehend when they lack adequate development of particular prior information. Advance organizer is a prereading strategy that can improve comprehension by bridging the gap between what the reader already knows and what the reader needs to know. Advance organizers that involves oral presentation by the teacher with ensuir discussion results in the greatest and most resilient comprehension and recall.

The main limitation on reading speed with high comprehension is word recognition rate. The more words you know the meaning of, the faster will be the potential for processing that information when the word is seen on the page. The faster you can recognize a wor the faster you can read with high comprehension. Another major limitation on reading speed with high comprehension is the extent c prior knowledge of the subject matter being read. The cognitive load placed on short term memory may be too great for unfamiliar information being read at a rapid rate. The ability to hold and manipulate large amounts of information in memory inorder to place al of the information that has been read into a coherent message can limit reading speed with high comprehension.

Use your hand/finger to keep your place as you read. Approx 30% of reading time is spent finding one's place w/eyes (regression).

Avoid subvocalization. Talking speed can slow down reading speed.

Mediated learning strategies that provide opportunities for the student to elaborate on the content of the text enhances comprehension

Reading Speed

- internal speech interferes with reading speed
- can use biofeedback to reduce vocalization (muscles around larnyx
- visual span "normally" = 3 - 4 words to the left of eye fixation point, and 15 - 18 words to the right of eye fixation point
- use hand as a pacer and a guide to keep place on page
- make visual map of principle ideas in a section
- re-read segments of the text
- good readers have efficient eye movement across the page
- good readers have a larger field of view
- eye may remain fixated on a word/words for as long as the info is being processed.....there is no delay between fixation and processing
- reading out loud, eyes read about 4-5 words ahead of the voice
- 3 words per second = 180 words per minute = 10 hours to read 150 pages (105,000 words)
- 10 words per second = 600 words per minute = 3 hours to read 150 pages (105,000 words)
- 20 words per second = 1200 words per minute = 1.5 hours to read 150 pages (105,000 words)

Notetaking

The ability to hold and manipulate propositional knowledge in working memory is related to the number of words, complex propositions, and main ideas recorded in notes. This information processing ability is a more significant predictor of complex propositions and words recorded in notes than are global measures of ability such as grade point average, etc.. Good writers as compared to bad writers hold more information in short-term memory and simultaneously manipulate that information more effectively and more rapidly. Thus improving this ability should be the goal to teaching people how to take notes effectively. Learners with greater working-memory capacity profit from notetaking, whereas students with less capacity are debilitated by notetaking. Notetaking taxes the information-processing capacity of working memory as the notetaker must select information from the task environment, maintain and manipulate that knowledge, and transcribe relevant ideas. From the instructors side (public speaking application), the process of notetaking can be facilitated by the instructor lecturing at slower rates, pausing for longer periods during the lecture, and writing relevant information on the board.

The most functional form of notetaking is in the graphic organizer form. Rather than taking notes in an outline form that has a linear format, the graphic organizer in the matrix-column format should be used. These formats facilitate learning more than outlines do because of their computational efficiency. These graphic organizers appear in a form that requires minimal computation or untangling in information by the learner.

[Topic]

	major point 1	major point 2	major point 3	major point 4
1	supporting info. 1	supporting info. 1	supporting info. 1	supporting info.
2	supporting info. 2	supporting info. 2	supporting info. 2	supporting info.
3	supporting info. 3	supporting info. 3	supporting info. 3	supporting info.

- generative processing.....generating relations among parts of the learning material or between learning material and prior knowledge
- when reviewing notes one should engage in generative processing
- linear matrix framework of note taking
  - --- linear...list main topic of the lecture and subtopics in outline forme and provide spaces in between for note taking
  - --- matrix....two dimensional table
    - main topics named across the top of the page
    - subtopics down the left margin
    - internal cells used for not taking
- main goals of note taking
  - completeness
  - repetition
  - internal connections
  - generative processing
- notes completeness.....highly correlated to test performance
- students record a larger volume of info on linear frames when large spaces are provided between subtopics
- matrix notes may be superior to linear notes by allowing students to follow info subtopic across a range of major topics
- linear notes would require going page to page , the student possibly missing connections

Memory

Context of Information Intake

Knowledge aquisition is more greater when you are learning the information for yourself, rather than so you can teach it to someone else. In learning languages, use reverse translation --- take a sentence in english and translate it into the desired foreign language.

Information in brain is stored in an ordered system. This facilitates rapid search. Information is stored in semantic spaces based on organizing attributes of the information. Knowledge acquisition occurs in 3 stages; view the domain as a set of uncorrelated items --- separate items in the domain into small, then larger groups that have correlations --- develop language systematization to organize the knowledge into a system. Semantic space is restructured, new concepts fit nicely and can be easily identified. Knowledge and skills of a person are related to the mode of information storage; degree of information specificity largely determines the intellectual capabilities

of the person --- information is stored hierachically in memory by varying degrees of specificity/generalization --- at any time one can "switch on" the level adequate for solution to a specific problem.

Attention is a limiting factor on learning and memory. Distractors to attention impair information processing and memory. Internal distractors --- self-talk, fatigue, hunger, etc.. External distractors --- loud noices, visual distraction, etc..

The depth of information processing affects information retention and recall. Deepening the processing of information rather than allowing information processing to occur at a superficial level, improves memory. Deepening the processing of information is achieved by--- talking to yourself during study sessions, association, visualization/imagery, distributed learning (short study sessions w/break periods), reviewing information shortly after intake, make reading an active learning process by reviewing using out-loud talking, and cognitive mapping of the information. Cognitive mapping involves generating phrases on the topic being studied, organizing the phrases into categories by placing the topic at the center of a circle and placing the main ideas in extensions from the circle and placing supporting details in the extensions from the main ideas.

Cognitive Interview

The cognitive interview is used to improve recall. The cognitive interview recreates the context/environment in which information was taken in. Recall the information from start and work forward. Recall informtion from end, and work backward, allow facts to come in as you go.

Instructional Design

Instructional design defines the manner or design in which instruction is delivered. It is the manner in which information is presented to the learner. There must be an effective intructional design for all seminars, lectures, press conferences, and intructional articles in our newsletters. Instructional design affects cognitive load ---- extraneous/superfluous information takes up cognitive resources/space and can impair learning. Negative instructional consequences come from split attention effects, and redundancy effects. Higher Order Thinking Strategies involve the employment of knowledge in the service of problem solving and creativity. the purpose of education is knowledge acquisition as well as development and improvement of higher order thinking strategies. Higher Order Thinking Strategies are affected by cognitive complexity ---differentiation, integration, and creation of knowledge. Differentiation is the ability tc understand a situation, ability to apply criteria to select necessary information from memory. Integration is a process of forming schema. And creation of knowledge is the ability to form new knowledge. Learning and applying problem solving/decision making higher order thinking strategies can be accomplished by ---- problem situation presented to the students --- students individually prepare a proposal solution --- students reassemble and present their proposals to the group, and then advocate their position ---continue advocacy in a debating manner, after all students have presented their solution they are thus able to further elaborate their positions and see possible extensions and alterations --- prepare a group proposal solution.

The mind works --- #1. big picture --- #2. detail. People often try to learn the other way around ---- #1. detail, #2 big picture.

Instructional design must take cognitive load into account. Cognitive load theory is concerned with the manner in which instructional material determines the deployment of cognitive resources. Because our working memory is limited in its processing capacity, it is critical for information to be presented in a manner that reduces extraneous cognitive load. Cognitive load theory suggests that some instructional procedures are ineffective because they require students to engage in superfluous cognitive activies purely because of the manner in which the material is presented. When students are forced to process redundant material or split their attention between multiple sources of information, an extraneous cognitive load is imposed. The redundancy effect --- occurs when students must process material intended to be informative but which is in fact redundant to other presented material. The split attention effect --- occurs when students must split their attention between, and mentally integrate, disparate sources of essential information that have been physically separated unnecessarily. Some instructional material requires considerable student cognitive activity, not because of the intrinsic complexity of the information, but solely because of the way in which the information is presented. Modality effects --- presentation of information by different modalities (auditory, visual) may increase the effective size of working memory by presenting information in mixed rather than in a single mode. A mixed mode of presentation can increase the amount of information processed by working memory, overcoming the split attention effect that occurs with one single mode of information presentation. Working memory may have a "visual sketch pad" for dealing with visual images and a "phonological tape" for processing verbal information. The two systems of information are processed separately but interdependently, thus space taken-up in one area, has no limiting impact on the space available in the other. Effective cognitive capacity can be increased if both auditory and visual working memory are used. Instruction can be enhanced by expanding working memory limits by simultaneous visual and aural presentation of information. Learning can be facilitated by dual-mode presentation.

Content teachers often treat their subject areas as discrete and separate entities with minimal efforts directed toward incorporating subject matter from other related disciplines into their teaching. This type of presentation results in students mistakenly believing that success in school is equated with "knowing" a given body of knowledge of a subject rather than "learning" how this new knowledge can be related to their experiences and other subject disciplines both in and out of school. These students spend their time being told either by their teacher or by textbooks what they need to know for later retrieval. Being told without a context that encourages student analysis and synthesis of ideas produces students who are unable to apply information in problem-solving situations. Instructional design can be structured to encourage critical thinking which leads to incorporated knowledge that can be retrieved and applied to other related settings.

Schema --- a cognitive construct that classifies information according to the manner in which it will be used.
Schema = a paradigm
Schema aquisition is a primary learning mechanism.

Understanding Instructions
This is affected by cognitive load. Working memory is limited in duration and capacity. Instructional material may be difficult to understand if it consists of many elements that must be held in working memory simutaneosly. If the number of elements that must be processed exceeds working memory capacity, then some elements must be combined into schemas before the material can be understood. If this goes undone, the person will fail to comprehend. A diagram (visual aid) may reduce cognitive load by providing a schema. Understanding depends upon the degree of interaction among elements of infomation. The ease with which we understand instructions and procedures is likely to be influenced by 2 general factors: the intrinsic complexity of the information, and the manne in which the information is presented. Expert problem solvers have schemas that allow them to classify problems according to the manners in which they will be solved. Information stored in long term memory is stored in schematic form. Effective problem solvi requires automation of problem solving operators. Schemas can be automated. Automated problem solving schemas allow us to recognize a problem as belonging to a particular category instantly. If the relevant schema is not automated, we may need to consider the information carefully before realizing that the problem belongs to a particular schema.

Long Term Potentiation (LTP)
- coactivation of presynaptic and postsynaptic cells gives rise to long lasting increases in presynaptic ability to excite postsynaptic cells.
- may be glutamate excitory synapses

TheETG Language Learning

Wednesdays

Website Reading	read part of a news and/or sports website that's written in the language you are learning

Sundays

Instruction Day	focus on learning verbs, grammar, or numbers

Several days each week

immersion	use radio apps, TV shows, etc in the language you are learning as background noise across your day
vocabulary	review foundational vocabulary
speak	speak outloud in sentences

Foundational Vocabulary

example.....Spanish

I	yo		**it**	a		**to**	a
She	ella		**this**	este		**too**	tambien
He	el		**these**	estos		**with**	con
We	nosotros		**those**	esos		**and**	y
They	ellos		**that**	ese/eso		**but**	pero
You [singular] **You [plural]**	tu//usted vosotros/ ustedes					**about** **not**	eso/ approximadamente no
Your [singular] **Your [plural]**	vuestro vuestros		**than**	que		**on**	en
Our	nuestro		**here**	aqui		**at**	en
Their	suyo		**there**	alla		**in**	en

who	quien		**is**	esta		**good**	bien
what	que		**was**	era		**bad**	malo
why	porque		**will be**	sera		**excellent**	excellente
when	cuando					**horrible**	horrible
where	donde		**be**	ser		**large**	grande
how	como		**never**	nunca		**small**	pequeno

more	mas		**left**	izquierdo			
less	menos		**right**	derecha			
before	ante		**up**	arriba			
after	despues		**down**	abajo			
high	alto		**middle**	medio			
low	bajo						

Foundational Vocabulary

_____

I			**it**			**to**	
She			**this**			**too**	
He			**these**			**with**	
We			**those**			**and**	
They			**that**			**but**	
You [singular] **You [plural]**	_____		**that over there**			**about**	
Your [singular] **Your [plural]**	_____		**than**			**on**	
Our			**here**			**at**	
Their			**there**			**in**	

who			**is**			**good**	
what			**was**			**bad**	
why			**will be**			**excellent**	
when			**will**			**horrible**	
where			**be**			**large**	
how			**never**			**small**	

increase			**above**			**left**	
more			**below**			**right**	
decrease			**over**			**up**	
less			**under**			**down**	
before			**high**			**middle**	
after			**low**			**center**	

Foundational Vocabulary

example.....Spanish

I	yo		**it**	a		**to**	a
She	ella		**this**	este		**too**	tambien
He	el		**these**	estos		**with**	con
We	nosotros		**those**	esos		**and**	y
They	ellos		**that**	ese/eso		**but**	pero
You [singular] **You [plural]**	tu//usted vosotros/ ustedes					**about** **not**	eso/ approximadamente no
Your [singular] **Your [plural]**	vuestro vuestros		**than**	que		**on**	en
Our	nuestro		**here**	aqui		**at**	en
Their	suyo		**there**	alla		**in**	en

who	quien		**is**	esta		**good**	bien
what	que		**was**	era		**bad**	malo
why	porque		**will be**	sera		**excellent**	excellente
when	cuando					**horrible**	horrible
where	donde		**be**	ser		**large**	grande
how	como		**never**	nunca		**small**	pequeno

more	mas		**left**	izquierdo			
less	menos		**right**	derecha			
before	ante		**up**	arriba			
after	despues		**down**	abajo			
high	alto		**middle**	medio			
low	bajo						

Foundational Vocabulary

_____

I			**it**			**to**	
She			**this**			**too**	
He			**these**			**with**	
We			**those**			**and**	
They			**that**			**but**	
You [singular] **You [plural]**	_____		**that over there**			**about**	
Your [singular] **Your [plural]**	_____		**than**			**on**	
Our			**here**			**at**	
Their			**there**			**in**	

who			**is**			**good**	
what			**was**			**bad**	
why			**will be**			**excellent**	
when			**will**			**horrible**	
where			**be**			**large**	
how			**never**			**small**	

increase			**above**			**left**	
more			**below**			**right**	
decrease			**over**			**up**	
less			**under**			**down**	
before			**high**			**middle**	
after			**low**			**center**	

Autogenic Relaxation

Mind-body Connections

Things you can use to your advantage in life, business, sport, etc, etc.
From slowing cellular aging and reducing likelihood of heart attack...to improving workout recovery and adaptations to training in athletes and weekend warriors.

Can improve everything from worker productivity on the job, to student learning in the classroom, to child and toddler behavior and brain development, to stay-at-home mom stress reduction in the household.
If you have a brain and nervous system, mind-body connections are your friends.

I first began using Autogenic relaxation sometime in the early 1980's. As a coach of distance runners I began teaching it to my athletes in the mid-1980's to help both in sport and in their academics, test preparation, etc. Many of them still use it today in daily lives as do I.

Autogenic Relaxation

Auto-genics works directly through the brain, the principal regulator of all body systems. The brain can put into practice, verbal instructions and imagined feelings oriented toward operation of internal organ systems such as blood flow, heart rate, nervous system relaxation, etc.

Purpose

-- reduce brain and peripheral nervous system activity, reduce stress hormone [cortisol] levels and/or effects, increase blood flow and oxygenation, increase or normalize levels of substances and growth factors [nerve growth factors, neuro-trophic factors, anabolic hormones, etc] that promote regeneration and recovery functions in brain, nerve, immune system, and muscle.

Duration

-- 20 seconds to 20 minutes

Autogenic Relaxation: Stage 1

-- Oxygenation [diaphragmatic breathing]…..lay on floor or sit, place one hand on stomach. During inhale, make your stomach rise prior to your chest rising.

Autogenic Relaxation: Stage 2

-- Brain and nervous system activity reduction…..close your eyes, let go of thoughts related to daily activities. Repeat affirmations several times…."This is my down-time, I am calming and quieting all cells of my body. I am resting."

Autogenic Relaxation: Stage 3

-- Blood flow…..create relaxation, warmth and heaviness in limbs and torso. Repeat the affirmations…."my hands and arms are becoming warmer and heavier. My feet and legs are becoming warmer and heavier. My chest and torso is becoming warmer and heavier. I am feeling more and more quiet, calm, and relaxed."

Eyes closed bed-rest [and/or Napping]

Laying down on a bed, floor, ground and close your eyes.

Purpose

Split-up the amount of "up-time" and/or awake-time on a given day by inserting some down-time. Reduce the cumulative total amount of daily activity and stress loads on brain, nervous system, and immune system.

Duration

-- 10 minutes to 2 hours

Hot Jacuzzi or hot bath

Sit in a hot Jacuzzi or bath tub.

Purpose

-- Provide temperature and relaxation related stimuli for production of growth and regeneration oriented substances in the brain and body [nerve growth factor, growth hormone, etc]. Increase blood flow and oxygenation in order to promote regeneration and recovery functions in brain, nerve, immune system, and muscle.

Temperature

F = 98 - 105 degrees
C = 37 - 40

Duration

-- 5 to 10 minutes

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Access to information and the ability to apply it is the major mechanism of success in human performance in track & field, in medicine, in health and wellness. As you continue to acquire and apply more information you continue **to expand the area of what is possible.**

To be a good track coach one must -first- be a good physiologist.
To be a good medical doctor one must -first- be a good physiologist.
To be a good physiologist one must -first- be willing to.....
-- put data ahead of dogma
-- put science ahead of indoctrinated tradition
-- put logic and reason ahead of faulty assumptions
-- put mechanisms ahead of correlations and "risk factors"
-- put critical thinking and clinical reasoning ahead of memorized "if-then" statements
-- aggressively keep up with, read, and apply large amounts of published research
-- accept outcomes as the judge and jury of your work

So called "performance enhancing drugs" <u>are prescription drugs</u>.

Some examples of the effectiveness of prescription drugs in sport.....

"The drug erythropoietin, often called EPO.....a new systemic review of existing research reveals that **<u>there is no scientific evidence that it does enhance performance</u>**, but there is evidence that using it in sport could place a user's health and life at risk."
EPO [erythropoietin] doping in elite cycling: No evidence of benefit, but risk of harm
Science Daily.....December 5, 2012.

"....**<u>there is no scientific basis from which to conclude that rHuEPO has performance-enhancing properties</u>** in elite cyclists.""The use of rHuEPO in cycling is rife but scientifically unsupported by evidence, and its use in sports is medical malpractice."
J.A.Heuberger, et al
Erythropoietin doping in cycling: lack of evidence for efficacy and a negative risk-benefit.
British Journal Of Clinical Pharmacology.....Volume 75 #6....June 2013...page 1406

"The **<u>over-exaggeration of the effects of growth hormone</u>** in muscle building is effectively promoting its abuse...."
"....there is the question of disinformation on rhGH....Part of this problem may, paradoxically, derive from the anti-doping authorities themselves. By ignoring the evidence the **<u>rhGH does not work</u>** in normal healthy subjects, the athletic establishment could be accused of effectively promoting its use."
"**<u>We must tell athletes the truth: growth hormone does not 'work'</u>** or at least not as they think it does and that its is associatedwith all kinds of immediate and long term hazards-----everything from decreased performance to cancer."
"....none of us scientists, doctors, coaches, or sports bodies should continue to suggest that this dangerous doping practice works."
M.J. Rennie
British Journal Of Sports Medicine.....Volume 37 #2....April 2003....pages 100-103

"**<u>Testosterone prohormones</u>** such as androstenedione, androstenediol, and dehydroepiandrosterone (DHEA) have been heavily marketed as testosterone-enhancing and muscle-building nutritional supplements for the past decade."
"Contrary to marketing claims, research to date indicates that the use of prohormone nutritional supplements (DHEA, androstenedione, androstenediol, and other steroid hormone supplements) **<u>does not produce either anabolic or ergogenic</u>** effects in men. Moreover, the use of prohormone nutritional supplements may raise the risk for negative health consequences."
G.A.Brown, et al
Testosterone Prohormone Supplements.
Medicine & Science in Sports & Exercise.....Volume 38 #8....August 2006.....pg 1367-1537

So called "performance enhancing drugs" <u>are prescription drugs</u>.

Some examples of the effectiveness of prescription drugs in American medicine & health care.....

"Most drugs are only effective **<u>for a small percentage</u>** of people who take them."
Michael Leavitt [U.S. Secretary of Health & Human Services 2005 - 2009]

".....the benefits that US health care currently deliver **<u>may not outweigh the aggregate health harm</u>** it imparts."
Journal Of The American Medical Association...Volume 302 #1..July 1, 2009...page 89 - 91

"It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States."
[Centers For Disease Control....2015]

"106,000 deaths/year **<u>from non-error</u>**, adverse effects of medications"
B. Starfield
Is US Health Really the Best in the World
Journal of The American Medical Association.....Volume 284 #4....July 26, 2000....page 483 - 485

".....1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."
Nature Medicine....Volume 12 #9....September 2006.....pg 984 - 985....News In Brief

Pursue becoming a

Master Of Sport