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O Efeitos do imagery mental no performance desportiva: cenário real ou efeitos colaterais?

The Effects of mental imagery on athletic performance: real scenario or side effects?

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Where is Burapha University





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The way of success in sport





Success in sport

Physical conditioning, skillful
Mental toughness

Physical
mental






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What is mental toughness?

Quotes from athletes:

"Baseball is 90 percent mental, the other half is physical."
 (mental Training for Athletic Success)

"The game of golf is 90% mental and 10% physical."
 (Jack Nicklaus)






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What is Mental toughness?

Definition

Mental toughness is having the natural or developed psychological edge that enables you to:
Generally cope better than your opponents with the many demands (e.g., competition, training, lifestyle) that are placed on you as a performer.



Specifically, to be more consistent and better than your opponents in remaining determined, focused, confident, resilient, and in control under pressure (Jones et al., 2002).







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Key psychological characteristics associated with mentally tough (Jones et al., 2002):


- Believed
- Motivation
- Focus
- Dealing with pressure








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Mental training for mental toughness


- ❖ The optimal performance is related with mental preparation and psychological strength just as much as physical preparation and technical skill.
- ❖ Mental training is concentrates on preparing the mind of the athlete as thoroughly as the body.







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Mental training for mental toughness: Pychological Skill Training

Somatic technique (body to mind) such as <u>Biofeedback</u> , <u>Progressive Muscle Relaxation</u> , and <u>Meditation</u>	Cognitive technique (mind to body) such as <u>mental rehearsal</u> , <u>Visualization</u> , <u>Imagery</u>
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What is mental imagery?

Why used a mental imagery?

- *Paige (2009)* imagery is an effective technique for developing or enhancing mental toughness in athletes.

Imagery is an experience similar to a sensory experience but arising in the absence of the usual external stimuli as sight, sound, taste, smell and touch/feel (Martens, 1982)





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Traditional imagery in sport

For Example: shadow boxing

Muay Thai



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What are the benefits?



Training		Competition
<ul style="list-style-type: none"> ✓ developing <u>self confidence</u> ✓ developing pre-competition and competition strategies ✓ helping the athlete to focus his/her attention 	<p>Combined with <u>relaxation</u> it is <u>useful</u> in the removal of stress e.g. muscular tension</p>	<p>Strong confident Not fear Tough Flow Enterprising Never give up</p>

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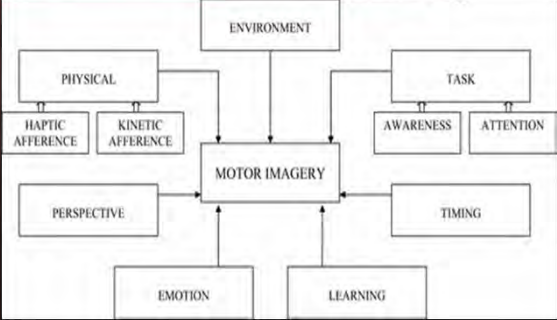
Mental imagery perspectives

	Internal	External
Real time		
slow motion		
	Actually action	
	Learning skill	



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PETTLEP model for enhance performance (Holmes and Collins, 2001)

P Physical
E Environment
T Task
T Timing
L Learning
E Emotion
P Perspective





+

Physical practice (Wright & Smith, 2012)



Success using the PETTLEP model

- ✓ Gymnastic routines
- ✓ Golf bunker shots
- ✓ Computer game performance
- ✓ Nursing skills



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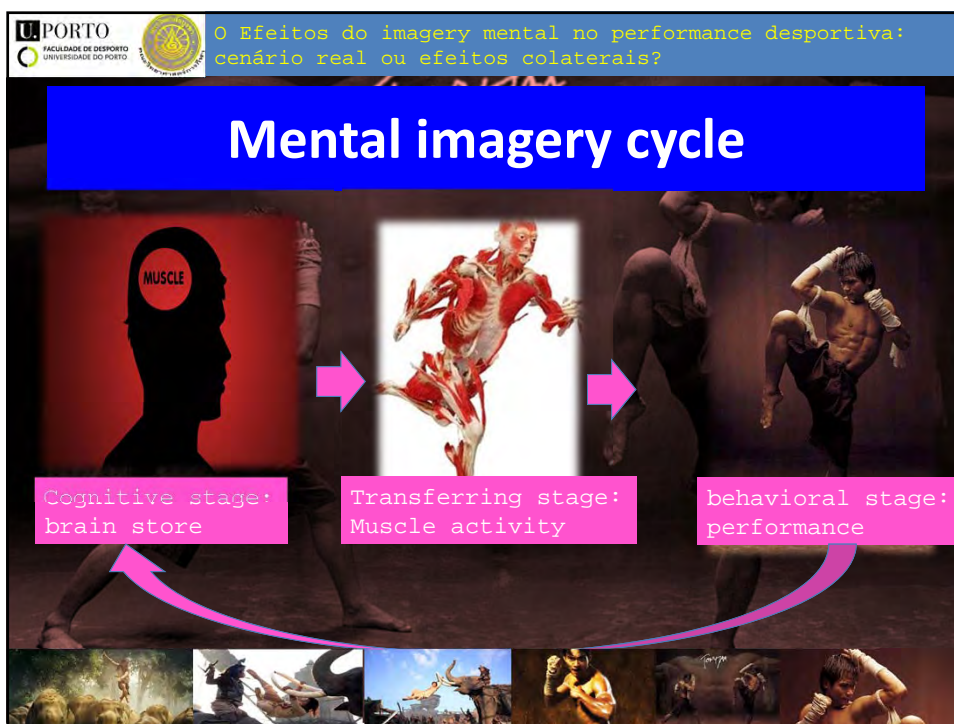
Effects of PETTLEP Imagery on Sports Performance



- **Holmes and Collins (2001)** pioneered the seven-component imagery process known as PETTLEP imagery.
- **Smith, Wright, Allsopp, and Westhead (2007)** compared the effects of PETTLEP-based imagery against the improvements found with the use of traditional imagery.
- **Smith, Wright, and Cantwell (2008)** studied the effects of PETTLEP imagery on golf bunker shot performance.



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Effects of PETTLEP Imagery on Sports Performance (con.)

- Jenny and Munroe-Chandler (2008) research focused on the timing element of the PETTLEP intervention. The researchers examined the performance effects of three imagery conditions, in regards to soccer dribbling.
- Wright and Smith (2009) compared the effects of PETTLEP imagery with the results obtained using more traditional imagery, on muscle strength.
- Ramsey, Cumming, Edwards, Williams, and Brunning (2010) examined the Emotion element of the PETTLEP model using penalty kicks in soccer.

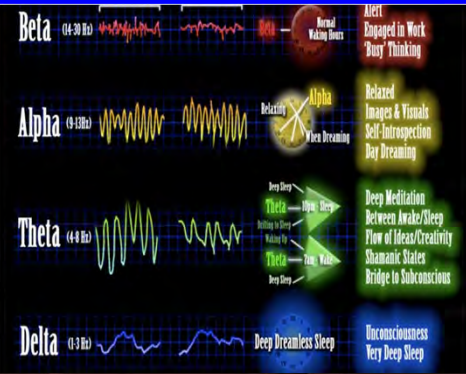




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Cognitive stage: brain working

Brain activity has been proposed to be important in understanding affective and perceptual responses of human performing (Nybo & Nielsen, 2001; Petruzzello et al., 2006).

Brain wave is the patterns represent the electrical activity of the brain



Farag (2011) studied about effect of development of some mental imagery abilities on some skill and brain map for competitive swimmers and found that 4 basic types of brain wave are associated with electroencephalogram (EEG) record.

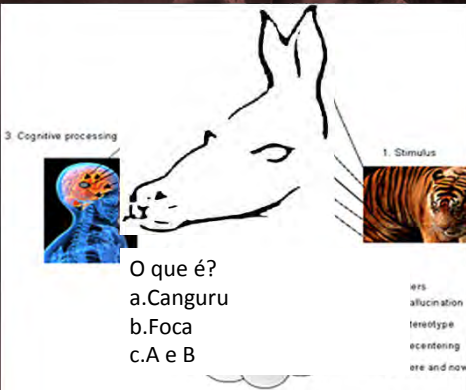


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Cognitive stage: transfer to perception, to questionnaire

Sensing --> Memory --> Learning --> Decision making

Perception is the set of processes by which an individual becomes aware of and interprets information about the environment.

Questionnaire (Sport imagery Questionnaire; SIQ; Sport Imagery Ability Questionnaire; SIAQ; et al.)



O que é?

a. Canguru

b. Foca

c. A e B

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Relationship between Mind and body

- It is important to think positively, but pressure doesn't just affect your thoughts, it affects your body and your senses also, and it's these two that make the difference between good and bad shots. (Harkness, 2009)




Harkness, T., (2009). Psykinetics: The new Science of the Golf Swing
 Psykinetics the interaction of mental States and Physical movement. in:
www.biofeedbackrus.com/images/graphics/thewall/PsykineticsTrainingGolf.pdf

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Not only.....But also.....



The diagram illustrates a cycle of training components. On the left, a purple box labeled 'Physical practice' is connected to a green box 'Mental training' (top) and another green box 'Mental training' (bottom). The top green box contains the text 'Links confident to muscle (belief we can do it)'. The bottom green box contains 'Your physical done, easy to recognize by mental'. In the center, a purple box labeled 'Mental imagery' is connected to the top green box by a plus sign and to the bottom green box by an equals sign. On the right, a purple box labeled 'Effectively to enhance performance in sport' is connected to the 'Mental imagery' box by an equals sign. Arrows indicate a flow from the training components towards the final performance goal.

Just more than one discipline; Sport Psycho-Physiology in sport (SPP) is the integration of mind and body in the effective training, preparation and performance strategies of athletes.



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TONY JAA

**THANK YOU FOR YOUR
ATTENTION**

