

SELF TALK AND PERFORMANCE

Yannis Theodorakis

Topics

- **Definition**
- **Instructional versus motivational**
- **Experimental evidence**
- **Implications**
- **Next studies in the area**
- <https://www.express.co.uk/sport/tennis/871764/Roger-Federer-quotes>
- "I'm a very positive thinker, and I think that is what helps me the most in difficult moments."



IS that a big secret?

- <https://www.youtube.com/watch?v=MOGk3HNFqts>



Nike football positive self talk

- **Self-Talk**

<https://www.youtube.com/watch?v=VjYlBFXxda0>

- **•Visualisation**

- <https://www.youtube.com/watch?v=k-D2hBYSlog>

SELF TALK, ***in sport & exercise***

- ◆ **Athletes often talk to themselves while they train or compete.**
- ◆ **It is what say to themselves to think more precisely about their performances and to direct their actions in response to those reflections.**

Definitions

From simple to more precise...

speaking to ourselves, thinking, one of the components of consciousness

Henschen and Straub 1995

internal dialogue with oneself

Moran, 1996

what people say to themselves either internally or out-loud

Theodorakis et al. 2000

... occurs anytime a person thinks

Zinsser, Bunker, and Williams 2006

Definition

- The verbal dialogue in which athletes interpret their feelings and perceptions, evaluate themselves, and give themselves instructions or reinforcement (Hackfort & Schwenkmezger, 1993).

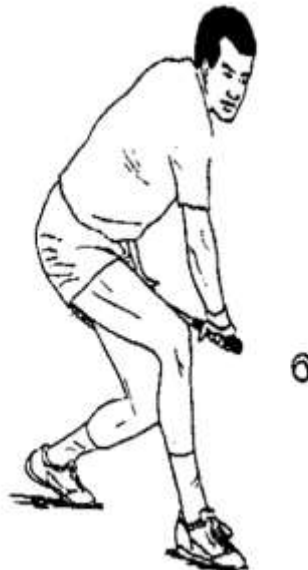
What is self-talk

- With regard to the *form of expression*, self-talk can be described as **internal** and **external**.
- Internal refers to self-talk athletes have within their head, also termed silent; whereas external refers to self-talk that is audible, which is also termed vocalized, or out-loud self-talk.



PRACTICAL IMPLICATIONS

1. Relax and ready 2, 3, Read the seam 4. legs 5. power



What is self-talk-body language



- With regard to the ***content***, self-talk can be characterized as **positive**
- (e.g., 'great shot'),
- or **negative** (e.g., 'this sucks'),
- but also as **neutral** (e.g., 'I'd love a shower'), solely depending on the wording that is used.



The two main categories of self-talk

- *Motivational self-talk refers to statements designed to help performance via building confidence, enhancing effort, increasing energy expenditure and creating a positive mood*
- *Instructional self-talk refers to cues aiming to provide direction for action (e.g., 'smooth' or 'attack the backhand'),*

Examples

- **Positive:** praise and encouragement that helps people stay focused on the present (e.g., “You do well on each throw,” “I throw to the best of my ability.”).
- **Negative:** derogatory self-labeling or self-rating that is usually self-criticism (e.g., “You cannot do this,” “You never throw well.”).
- **Instructional:** task-oriented or technical directions (e.g., “Hold your stance,” “Keep a loose wrist.”).
- **Motivational:** builds confidence and helps maintain the right amount of effort (e.g., “Get tough,” “come on”)

Positive self talk

- ◆ helps a player to stay appropriately focused on the present,
- ◆ not dwelling on past mistakes
- ◆ or projecting too far into the future

Athletes

- ◆ **Eighty percent of U.S. Olympic wrestlers used thought management strategies such as positive thinking, coping thoughts, blocking distractions, and perspective taking, and rational thinking and self-talk.**
- ◆ **Highly skilled athletes use self-talk in a more planned and consistent manner than less skilled athletes, who tend to think reactively**

SELF TALK is a cognitive strategy

- ◆ **that has been identified as a valuable technique for performance enhancement by various sport psychologists, coaches, and athletes.**

In general, self-talk is effective

- ◆ **for using strategy,**
- ◆ **psyching up for emotion and effort,**
- ◆ **relaxation and calming down,**
- ◆ **attentional focusing,**
- ◆ **maintaining of building confidence,**
- ◆ **self-evaluation/self-reinforcement.**

self-talk can aid in:

- ◆ **skill acquisition**
- ◆ **create positive mood.**
- ◆ **trigger desired actions more effectively,**
- ◆ **increase effort,**
- ◆ **results in a redirection of attention to task relevant cues”** (Nideffer, 1993)

*Several mental training techniques
are associated with self-talk,*

- ◆ thought stopping,
- ◆ thought replacement,
- ◆ countering,
- ◆ reframing,
- ◆ cognitive restructuring
- ◆ rational-emotive education,
- ◆ and energy management
- ◆ (Robin S. Vealey, 2007. *Mental Skills Training in Sport*)

**FROM THEORETICAL
AND EXPERIMENTAL
WORK
TO DAYLY PRACTICE**

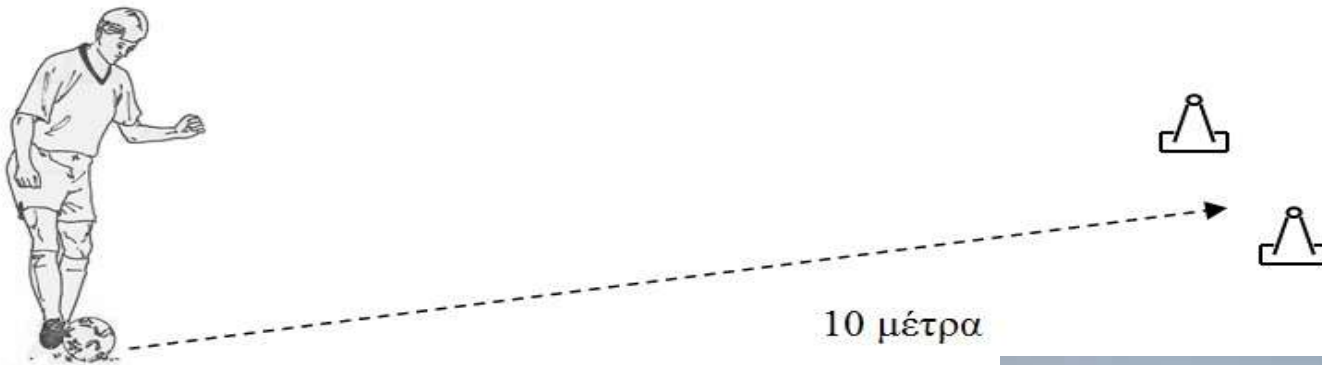
The effects of motivational versus instructional self-talk on improving motor performance

(Theodorakis et al., 2000).

- ◆ **EXPERIMENT 1**
- ◆ 72 male soccer players aged 12-16 years
- ◆ Task Passing test
- ◆ A goal about 1 yard wide and 18 inches high was prepared by placing two cones 1 yard apart with a 4 foot rope used as a cross bar. Two cones are placed at a 45-degree angle from the goal line, and one cone is placed at a 90-degree angle from the line.

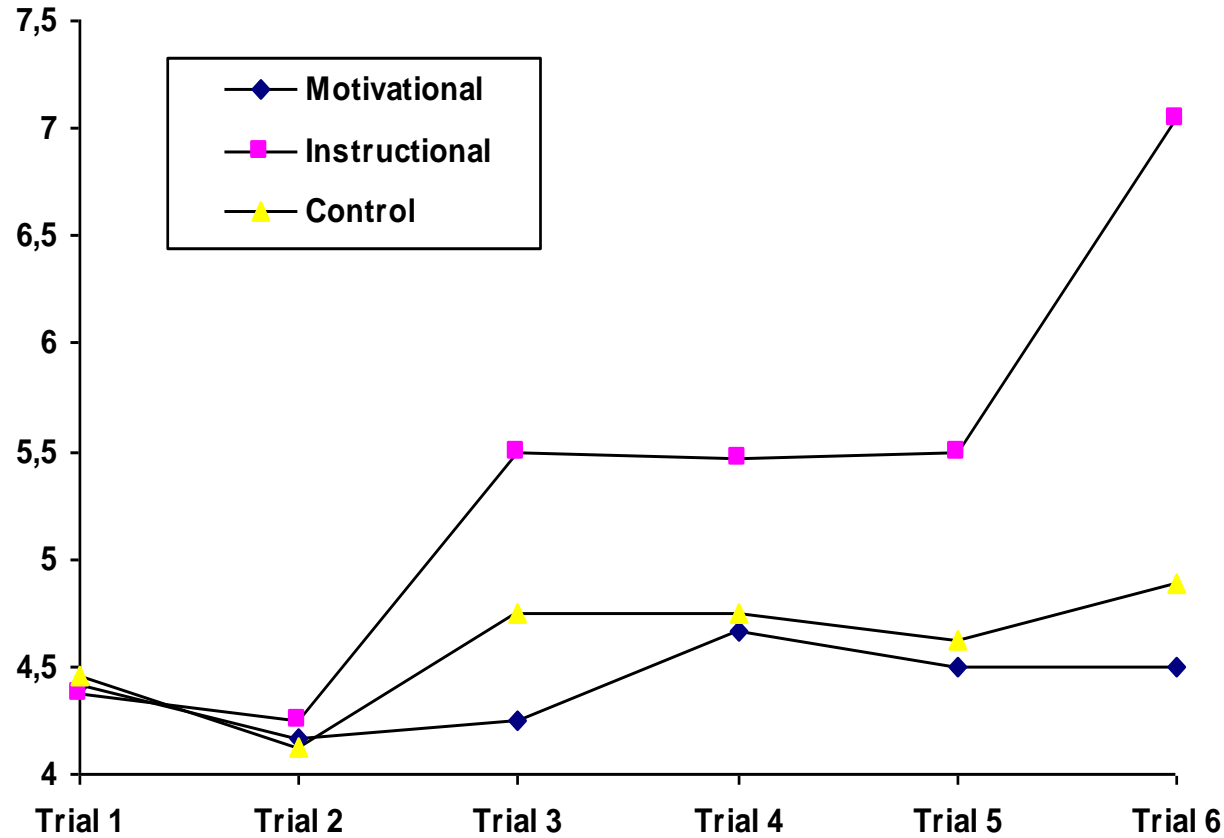
(A) I CAN, (*motivational*)

(B) I SEE THE BALL AND THE
TARGET (*instructional*)



- ◆ **All three cones are located 15 yards from the goal. From each of three cones students make four passes into the goal (12 passes total).**
- ◆ **Experimental Manipulation**
- ◆ **The first group was a control group. The first experimental group was instructed to use a motivational self-talk strategy, and repeat the word (“I can”) before each attempt.**
- ◆ **The second experimental group was instructed to use an instructional self-talk strategy, and repeat the phrase (“I see the target”). After that, the 3 groups performed four additional trial blocks with a 10 min rest period from trial to trial.**

Performance of the three groups across trials in soccer task



EXPERIMENT 2

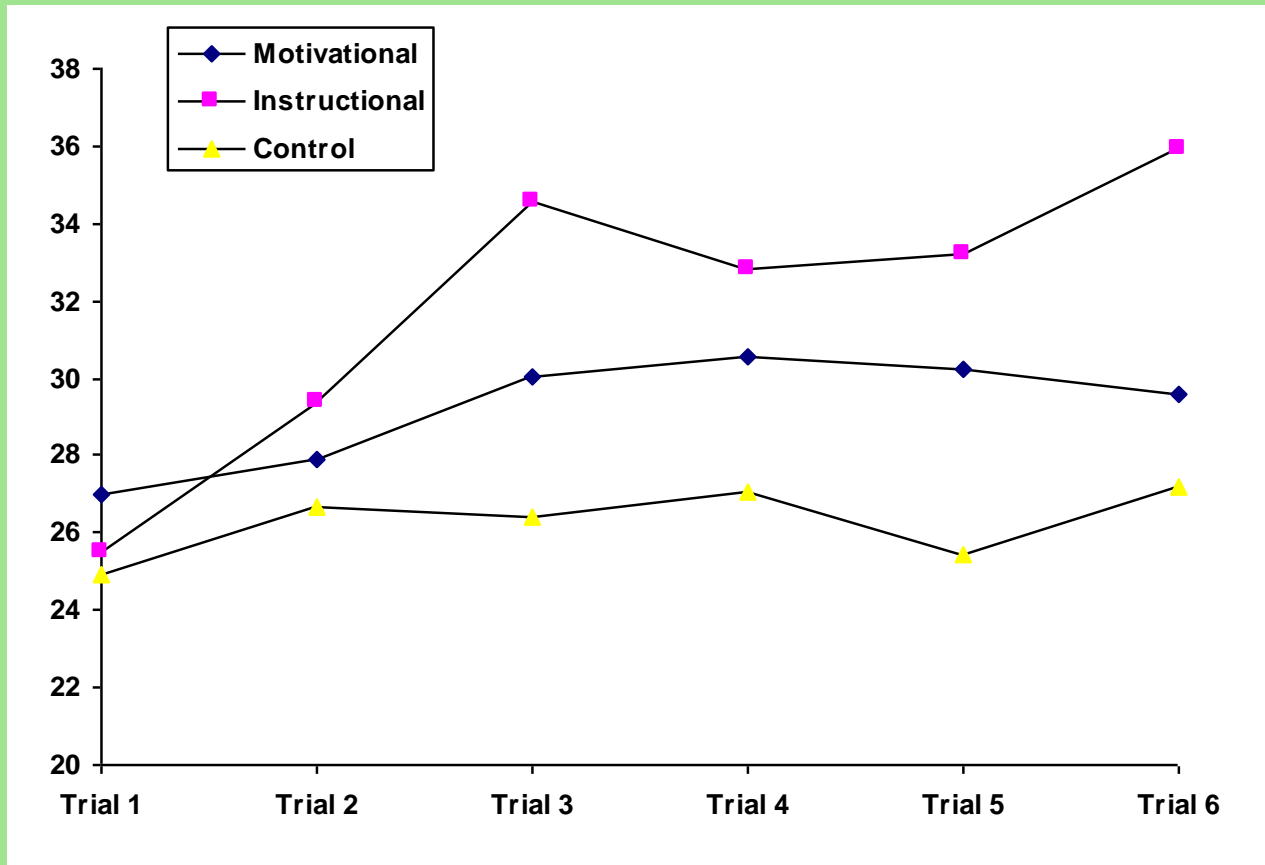
Batminton servis task

- ◆ 48 university students in Physical Education
- ◆ Task
- ◆ player's ability to serve accurately and low.



- ◆ **The first group was a control group.**
- ◆ **The first experimental group was instructed to use a motivational self-talk strategy, and repeat the word (“I can”) before each attempt.**
- ◆ **The second experimental group was instructed to use an instructional self-talk strategy, and repeat the phrase (“I see the net, I see the target”).**
- ◆ **After that, the 3 groups performed 4 additional trial blocks with a 5 min rest period from trial to trial.**

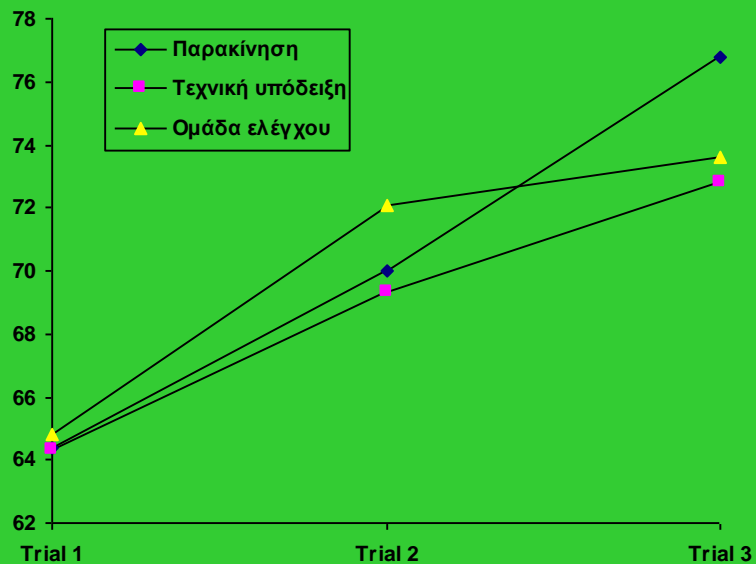
Performance of the three groups across trials in badminton task



EXPERIMENT 3, SIT-UPS

I CAN,

BREATHE OUT



Sit up task

- ◆ Participants 54 high school students.
- ◆ Experimental test
- ◆ The task was a 3-min sit-up test measuring endurance of the abdominal muscles,
- ◆ in this study the focus is on a task with a gross movement.
- ◆ It is measuring endurance, and the 3 minute duration is fatiguing.

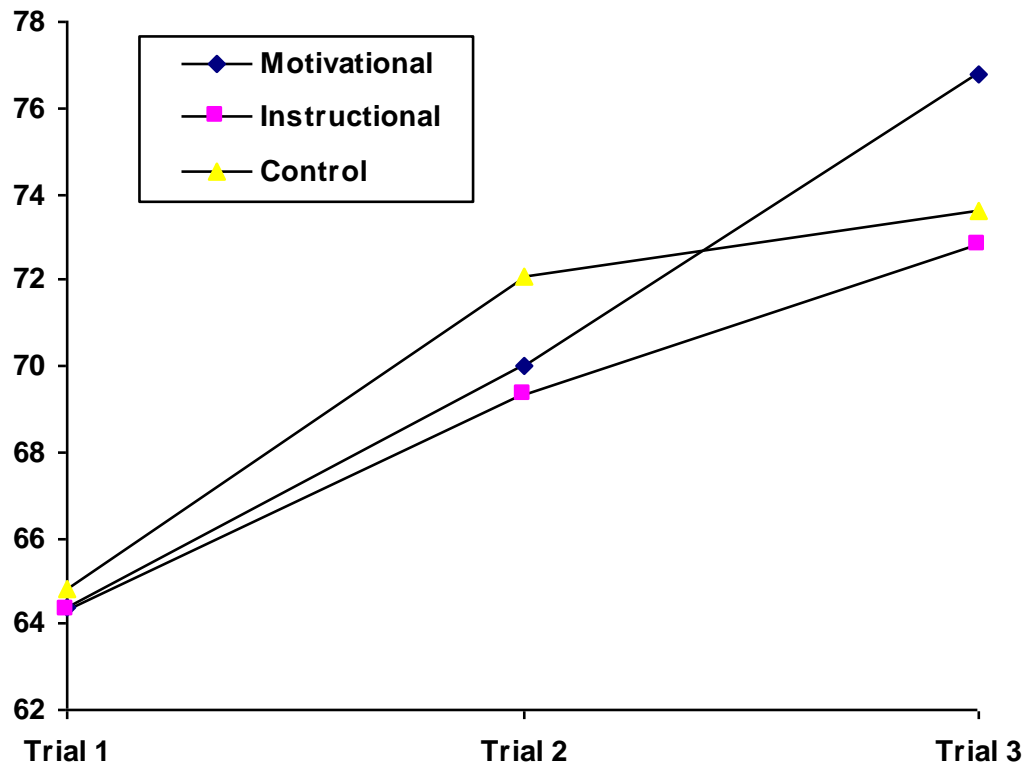
Experimental Manipulation

- ◆ **Participants were split into three equal groups according to their performance in this first trial. Then, participants were examined again after a five days period due to the exhaustive nature of the 3 min. sit up. The first group was a control group.**
- ◆ **The first experimental group was instructed to use a motivational self-talk strategy and repeated the word (“I can”) during the 3 min. trial.**

The second group

- ◆ **was instructed to use an instructional self-talk strategy and repeated the phrase (“breath out”) during the 3 min. trial. After that, the three groups performed the second trial. Following the same procedure, participants were examined after a five day period and performed the third trial.**

Performance of the three groups across trials in sit-up task



EXPERIMENT 4

Knee extension task

- ◆ The participants in this study were examined in a knee extension task by using a CYBEX isoniketic dynamometer instrument. The angular velocity was set at 180°/sec.
- ◆ In each trial, the participants performed three repetitions at 100% of performance maximum effort. The total work of the three repetitions in each trial served as the performance criterion measured in Joules.

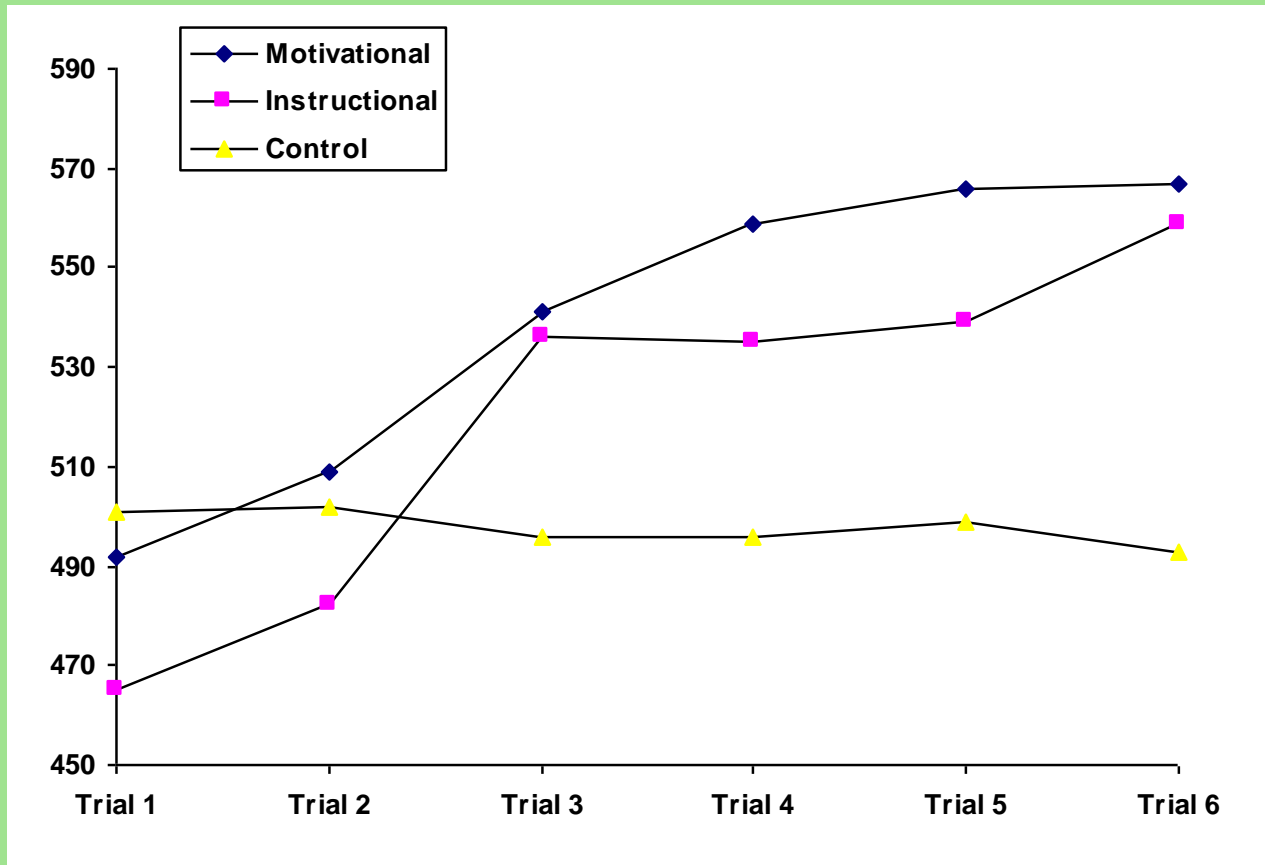


Experimental Manipulation

- ◆ **The warm-up for all subjects consisted of 5 min on an ergometric bicycle followed by three extension repetitions. For these repetitions participants were told not to try too hard.**
- ◆ **Each participant completed a total of six trials (three repetitions per trial).**
- ◆ **After the warm-up each participant were instructed to do their best and performed the first two trials.**
- ◆ **A 5-min rest period was given from trial to trial to enable the subjects to recover from fatigue..**

- ◆ **One experimental group was instructed to use a motivational self-talk strategy and repeat the word (“I can”) before each attempt.**
- ◆ **The other experimental group was instructed to use an instructional self-talk strategy, and repeat the phrase (“I stretch fast and strong”).**
- ◆ **After that, the 3 groups performed 4 additional trial blocks with a 5 min rest period from trial to trial**

Performance of the three groups across trials in the isokinetic dynamometer



General results

- **Results of the fourth experiment showed a significant improvement for both the motivational and instructional groups compared to the control group.**
- **It appears that when the task requires a fine motor movements an instructional self talk strategy is more effective,**
- **whereas when the task requires predominantly strength and endurance, both motivational and instructional strategies are effective.**

Motivational self talk and endurance performance

- This study investigated the effects of a frequently used psychological strategy, **motivational self-talk (ST)**, on RPE and endurance performance.

24 participants performed two constant-load (80% peak power output) **cycling time-to-exhaustion (TTE)** tests.

- ST significantly enhanced TTE test from pretest to posttest (637 T 210 vs 750 T 295 s, P G 0.05) with no change in the control group (486 T 157 vs 474 T 169 s).
- ST significantly reduced RPE at 50% isotime (7.3 T 0.6 vs 6.4 T 0.8, P G 0.05),
- **ST significantly reduces RPE and enhances endurance performance.**
- The findings support that psychobiological interventions designed to specifically target favorable changes in the perception of effort are beneficial to endurance performance.
- Blanchfield, A.W., Hardy, J., de Morree, H. M., Staiano, W., & Marcora, S. (2014). Talking yourself out of exhaustion: Effects of self-talk on perceived exertion and endurance performance. *Medicine and Science in Sport and Exercise*, 46(5), 998-1007. doi: 10.1249/MSS.000000000000184.

The effect of self-talk on injury rehabilitation

- ◆ **Theodorakis, et al. 1998**
- ◆ **Psychological interventions may motivate athletes to overcome the potential psychological barriers set by injury and speed up the rehabilitation process**
- ◆ **An athletic injury**
- ◆ **is often accompanied by depression, tension, anger, low self esteem, problems with attention, and exercise addiction cognitive, physiological, attentional, behavioral, interpersonal, social and stress history variables influence injury occurrence and prevention.**

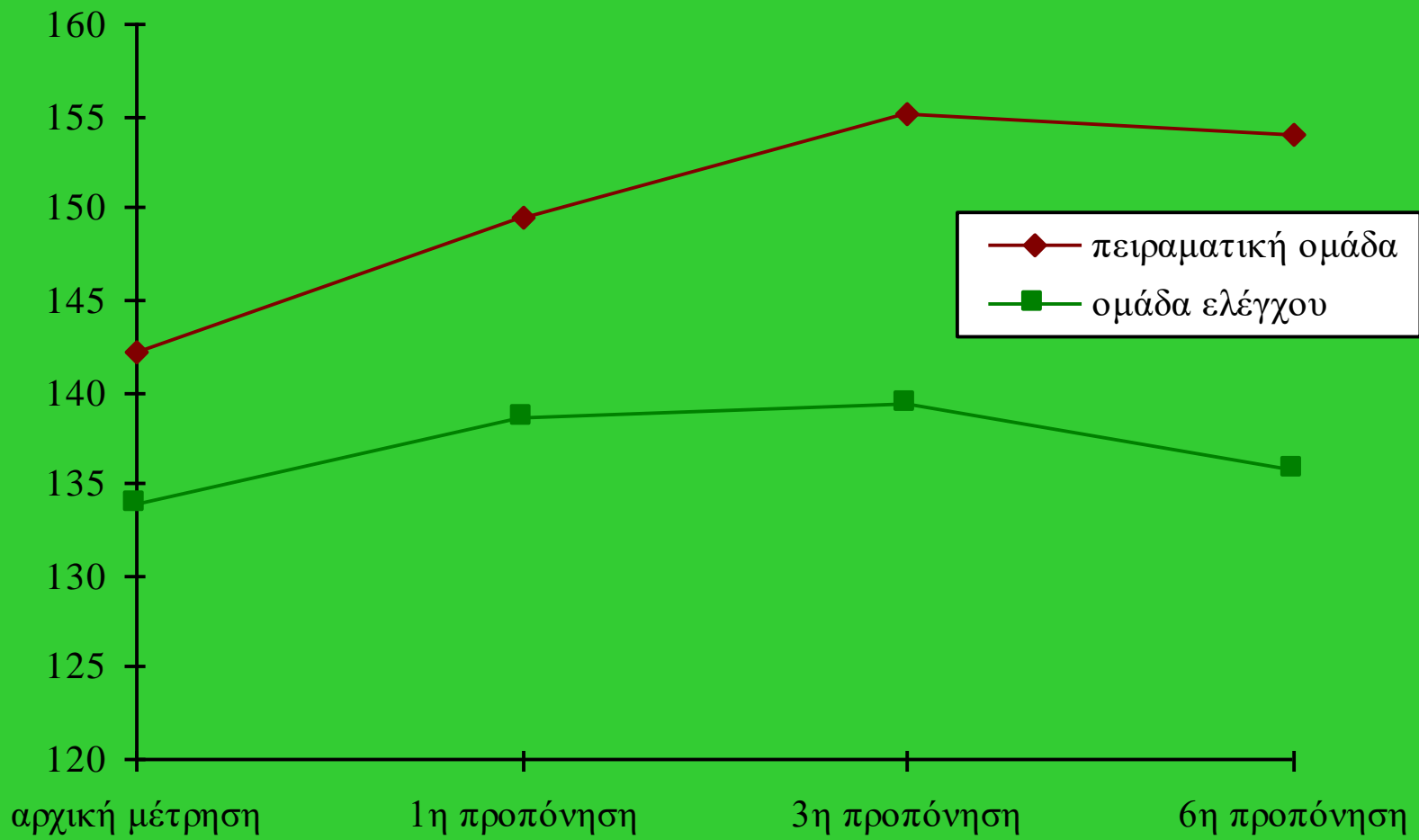
The effect of self-talk on injury rehabilitation



A CYBEX 6000 was used.

2 groups undergone a quadriops strengthening program.

- ◆ *The first phase of the Protocol consisted of 6 training sessions- The knee extension exercise involved 10 sets of 10 rep.*
- ◆ *at 180 deg/sec.*
- ◆ *Experimental manipulation*
- ◆ *During the training sessions the experimental group was presented by positive messages by means of a computer multimedia program. "strong", "I can", «I feel great and strong» "I can achieve great performance".*
- ◆ *The messages were presented*
- ◆ *on a computer screen and the participants were instructed to choose one of them*
- ◆ *They appeared on the computer screen continuously on various forms and colors.*



Tennis, 3 training sessions, and test on forehand drive task.

Hatzigeorgiadis, A., Zourbanos N., Mpoupaki, S., & Theodorakis, Y. (2009). Mechanisms underlying the self-talk – performance relationship: The effects of motivational self-talk on self-confidence and anxiety. *Psychology of Sport and Exercise*, 10, 186–192

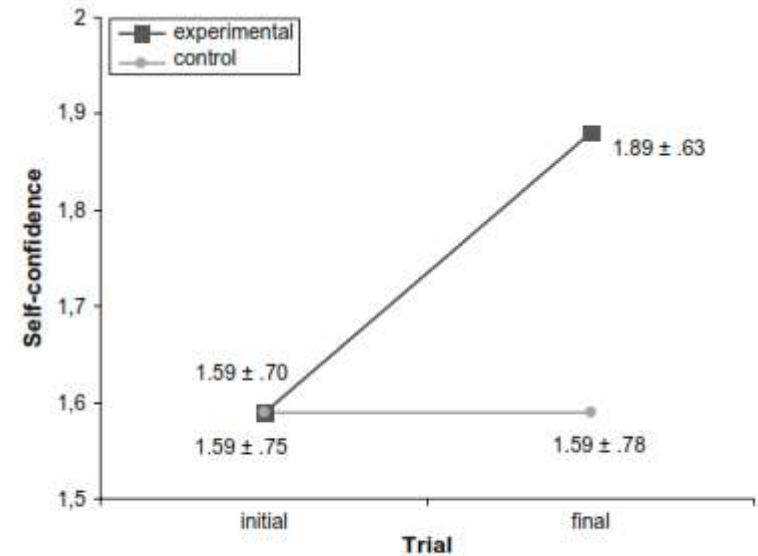


Fig. 2. Self-confidence scores in the initial and final trials for the experimental and control groups.

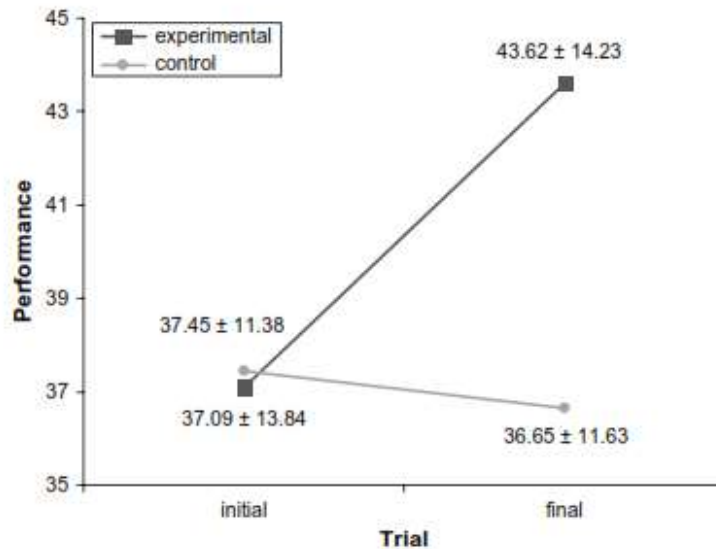


Fig. 1. Performance scores in the initial and final trials for the experimental and control groups.

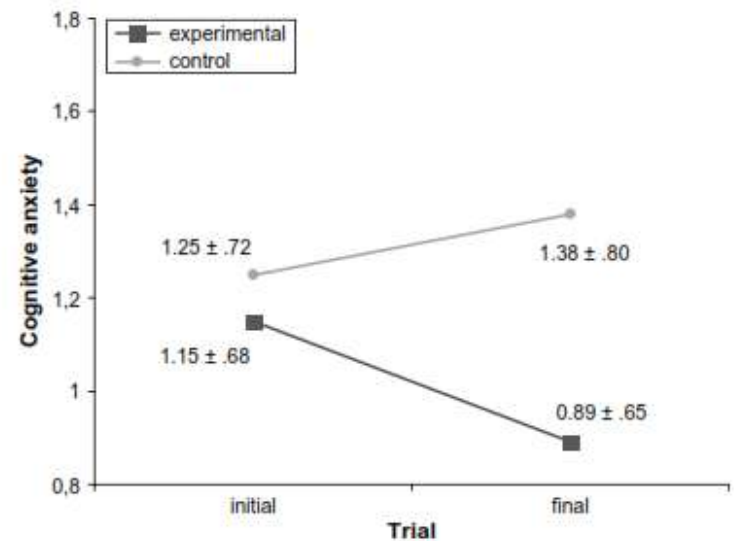


Fig. 3. Cognitive anxiety scores in the initial and final trials for the experimental and control groups.

Zourbanos, N., Hatzigeorgiadis, A. & Theodorakis, Y. (2007). A Preliminary Investigation of the Relationship Between Athletes' Self-Talk and Coaches' Behaviour and Statements, *International Journal of Sports Science & Coaching*, 2, 57-68.

- The aim of the present study was to explore the relationship between coaches' behaviour and statements, and athletes' self-talk. Two hundred and forty three athletes (106 females and 137 males) representing a variety of sports participated in the study. Participants completed the Athletes' Positive and Negative Self-Talk Scale, which assesses frequency of positive and negative self-talk; the Coaches' Positive and Negative Statements Scale, which assesses frequency of coaches' positive and negative statements; and the Coaching Behaviour Questionnaire, which assesses two dimensions of coaches' behaviour, supportiveness and negative activation. Structural equation modeling with latent factors was used to test the hypothesized relationships.
- **The results showed that coaches' positive statements were found to mediate the relationship between coaches' supportiveness and athletes' positive self-talk. Similarly, negative statements made by the coach were found to mediate the relationship between coaches' negative activation and athletes' negative self-talk.**

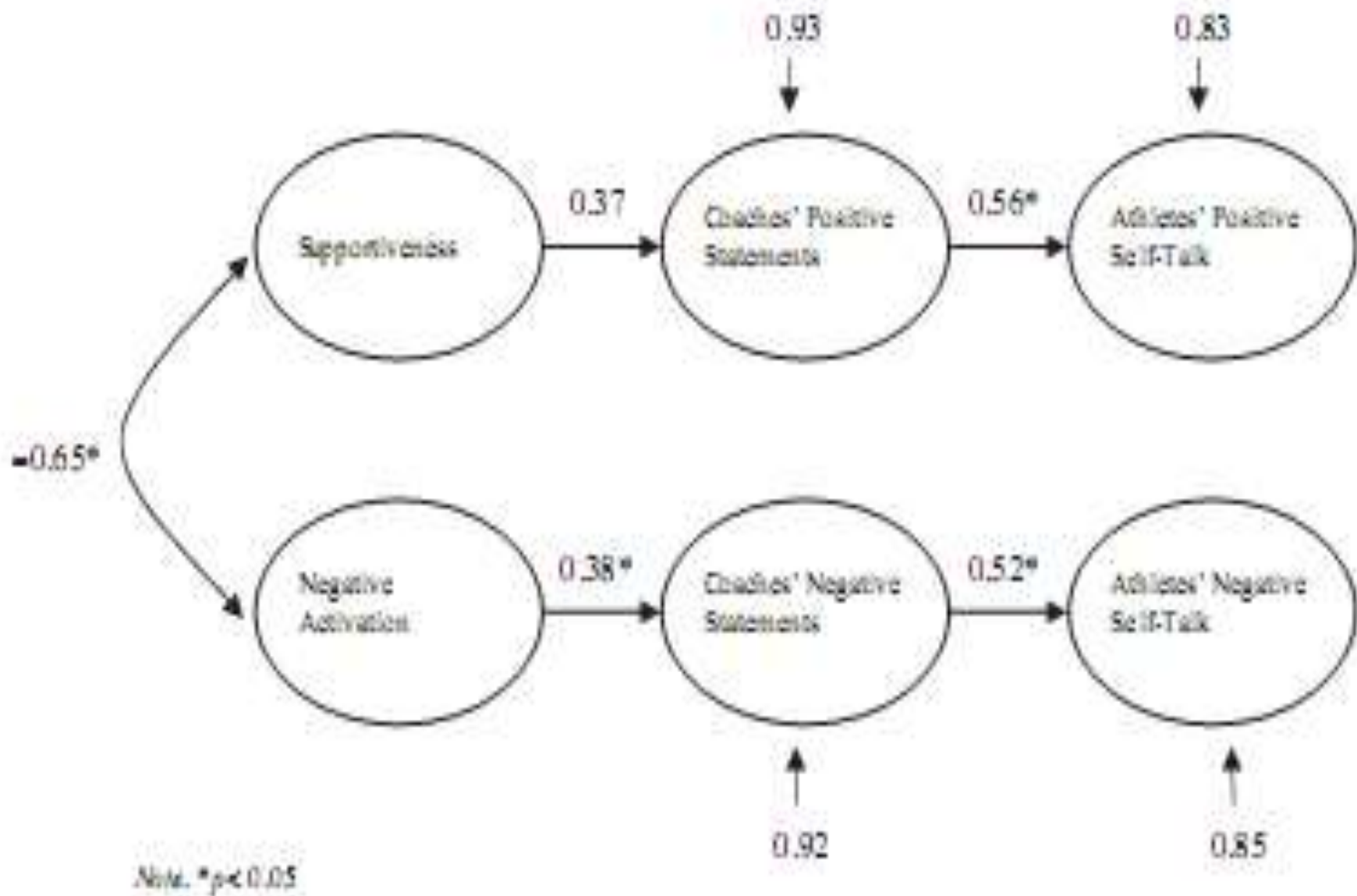


Figure 1. The Latent Factors Structural Model.

The effect of self-talk on the penalty execution in Goalball individuals with disabilities

- Stamou, E., Theodorakis, Y., Kokaridas, D., Perkos, S., & Kessanopoulou, M. (2007) The effect of self-talk on the penalty execution in Goalball. *British Journal of Visual Impairment*.....

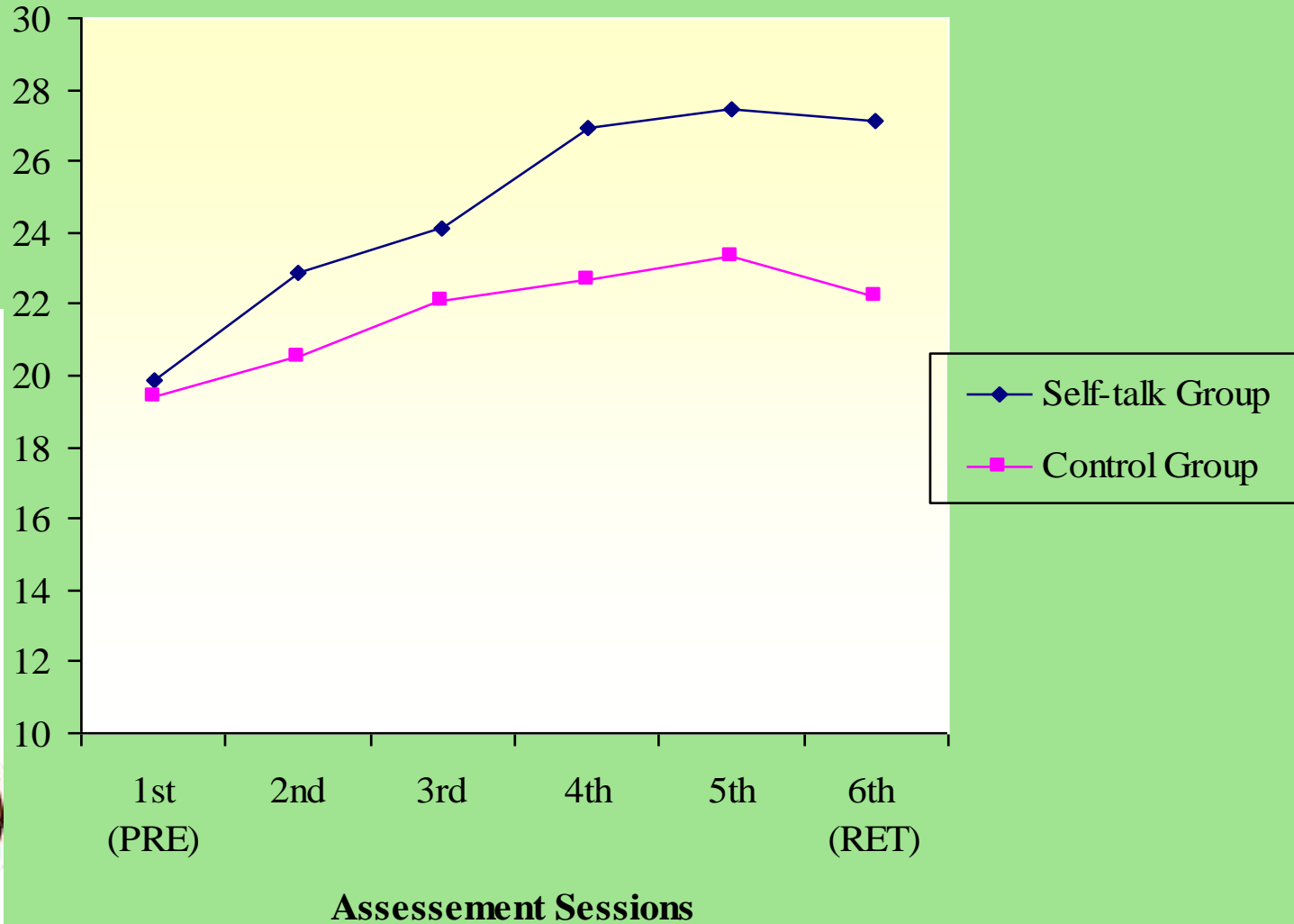


Self talk during regular practice in basketball

- This study examined the effectiveness of instructional self-talk on acquiring and performing three basketball skills (dribbling, passing and shooting). Sixty-two young, novice basketball players, were organized into one experimental and one control group. During regular practices, the experimental group accompanied the execution of three specific drills with self-talk. The control group performed the same drills traditionally. Six assessment sessions were completed. Repeated measures MANOVAs showed that experimental group participants' performed better than their control group counterparts' when dribbling and passing. Experimental group participants' and their coaches reported using self-talk more when passing and dribbling and less when shooting. In addition, experimental group participants' achieved significantly better dribbling and passing scores ($p < .05$) among assessment sessions. These results support instructional self-talk as an effective tool for skill acquisition and performance enhancement of skills low in complexity.

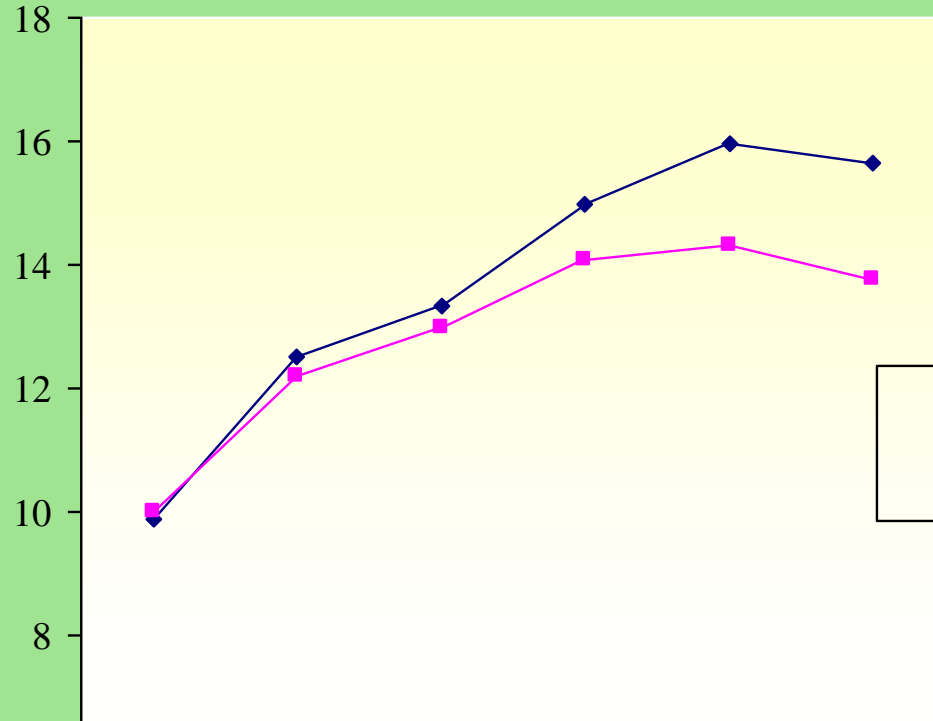
“low, rhythm” for dribbling;”

Dribbling Scores

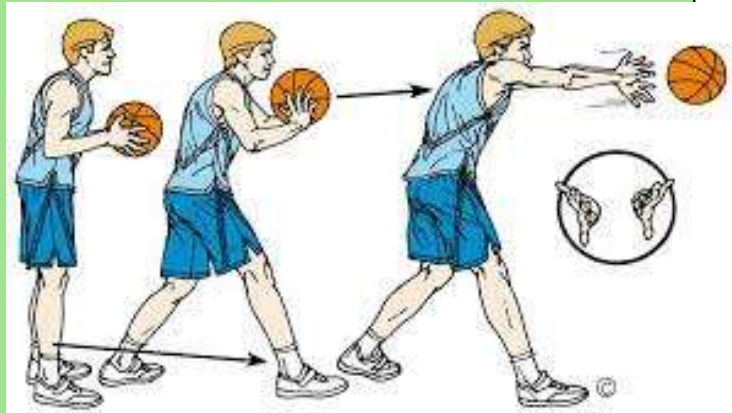


“fingers, target” for passing

Passing Scores



◆ Self-talk Group
■ Control Group

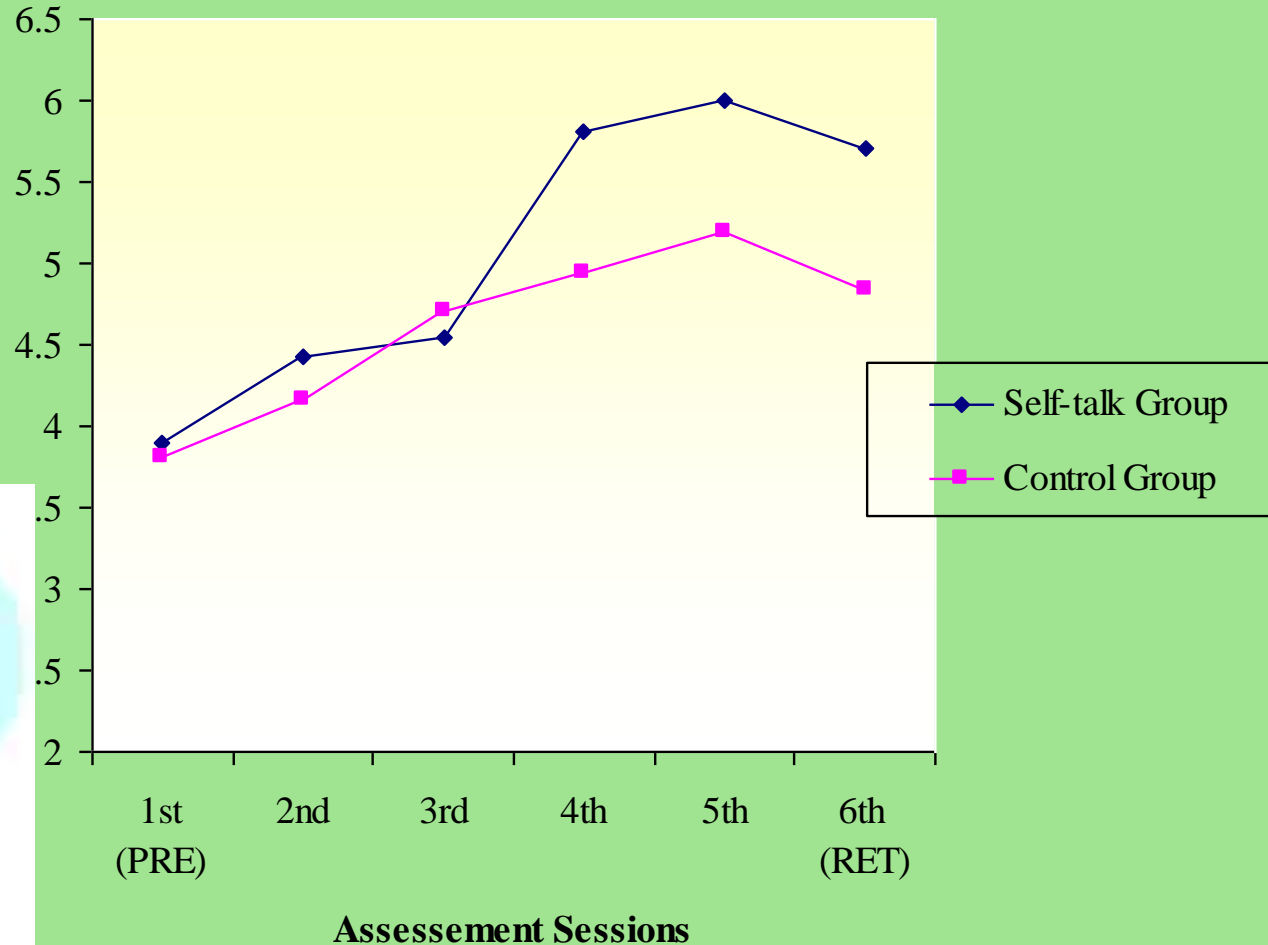


1st (PRE) 2nd 3rd 4th 5th 6th (RET)

Assesment Sessions

“hand, center» for shooting

Shooting Scores



Relevant research finding in

- In 100 m**
- In tennis**
- Figure skating**
- Etc.**

◆ Self talk for 100m

◆ 0-30m push /

◆ (acceleration phase)

30-60 m heel/

(maximum velocity phase (speed))

60-100 claw/

endurance phase)



Experimental evidence

Relax or quick, fast;

(Theodorakis, et al. 2001).

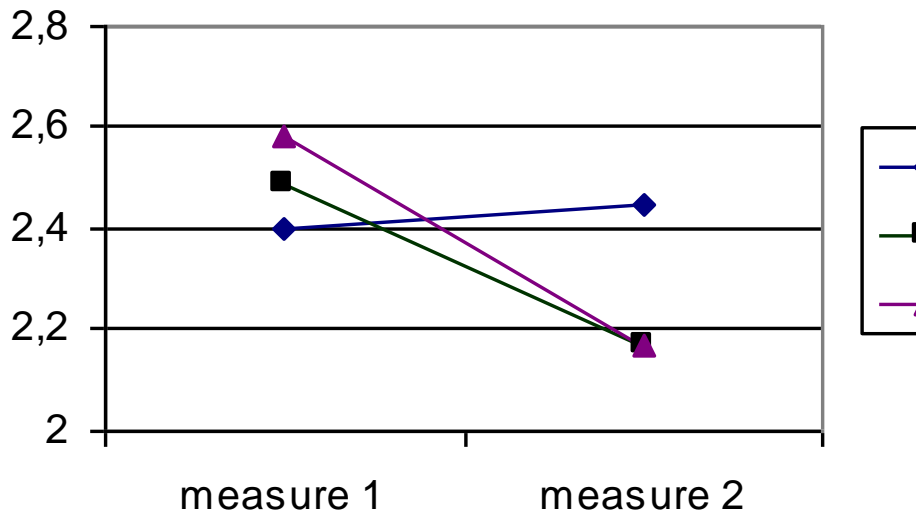


Experimental evidence (Hatzigeorgiadis, *et al.* 2003, JASP.).

Πείραμα 1. Και παρακίνηση και τεχνική υπόδειξη

Πείραμα 2. Παρακίνηση

και στα δύο μειώθηκαν παρεμβαλλόμενες σκέψεις



Self-Talk and Sport Performance: A Meta-analysis.

A total of 32 studies yielding 62 effect sizes were included in the final meta-analytic pool. The analysis revealed a positive moderate effect size (ES $d = .48$).

Analyses showed that self-talk interventions were more effective for tasks involving relatively fine, compared with relatively gross, motor demands, and for novel, compared with well-learned, tasks. Instructional self-talk was more effective for fine tasks than was motivational self-talk; moreover, instructional self-talk was more effective for fine tasks rather than gross tasks. Interventions including self-talk training were more effective than those not including self-talk training.

Hatzigeorgiadis, A., Zourbanos, N., Galanis, E., & Theodorakis, Y. (2011). Self-Talk and Sport Performance: A Meta-analysis.

Perspectives on Psychological Science, 6, 348-356. Γεωργιάδης, Α., Ζουρμπάνος, Ν., Γαλανός, Ε., & Θεοδωράκης, Υ. (2011). Ψυχολογία της άσκησης και ποιότητας ζωής

Self-talk works

- Meta-analysis
- 32 studies - 61 effect sizes
- Positive, moderate, statistically significant, effect size
 - $ES = .48$
 - confidence intervals .37 to .58

PRACTICAL IMPLICATIONS

■

1. Relax and ready 2, 3, Read the seam 4. legs 5, power



Application for professionals basketball

- *The skill*
- *Tripling (rhythm and low)*
- *Passing (fingers)*
- *Shooting (the center)*

relax and forward

- **instructional** καθοδήγηση-τεχν. Υπόδειξη
- (για αρχάριους)

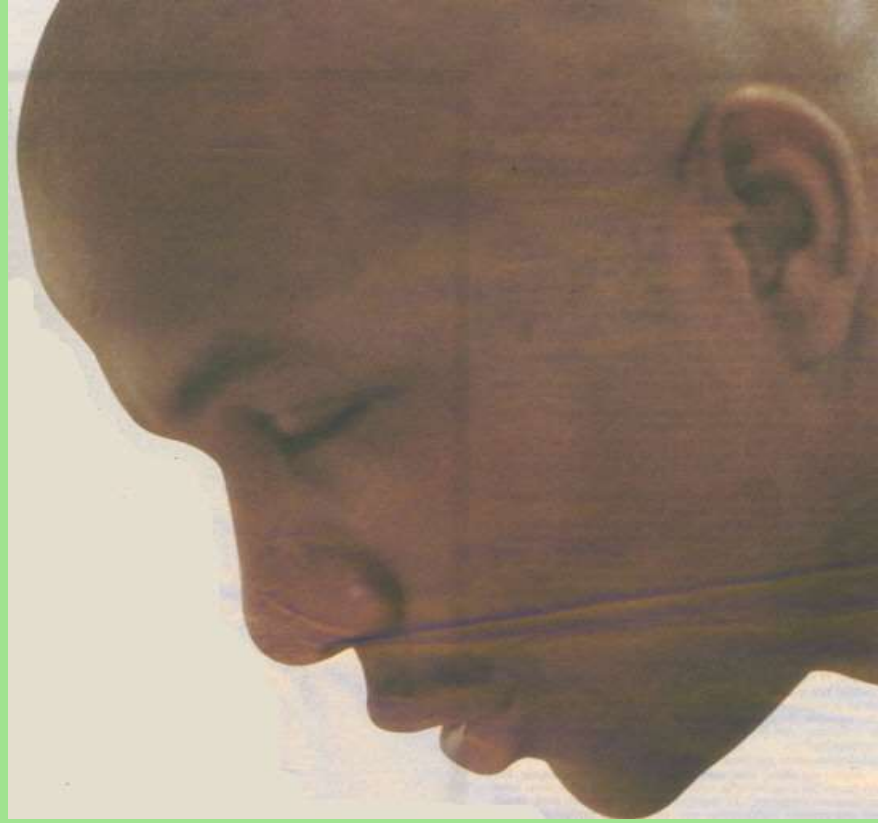


go, strong

- **motivational** παρακίνηση-ενεργοποίηση
- για πρωταθλητές



**In general,
just before the
trial**



ST plan

WEEK 5 – MOTIVATIONAL AND INSTRUCTIONAL SELF-TALK

	What	When	Why
<i>Motivational self-talk</i>			
All styles	Let's go	Just before the start of each repeat During the push after each turn	To boost effort
<i>Instructional self-talk</i>			
Freestyle	Elbow	On releasing the arm for recovery	To keep the elbow high
Backstroke	Deep	When entering the arm in the water	To take the arm deep enough for the catch
Breaststroke	Ankles	When completing the leg stroke	To continue the move until the ankles come together
Butterfly	Chin	Just before the exit of the head	To keep the chin close to the surface

Work in groups

Column 1

Find some examples of motivational types of self-talk

Column 2

Find some examples of instructional types of self-talk

See the chapter in additional materials

**THE USE OF SELF-TALK IN THE ORGANIZATION OF
A LESSON IN SPORT, PHYSICAL EDUCATION
AND EXERCISE SETTINGS**

Nikos Zourbanos^{1,}, Antonis Hatzigeorgiadis¹,
Athanasios Kolovelonis¹, Alexander T. Latinjak²
and Yannis Theodorakis¹*

Self talk and relevant theories

- stress inoculation training,
- systematic desensitization,
- cognitive restructuring (rational emotive therapy) κλπ.
- Τα κρυμμένα πιστεύω που βρίσκονται πίσω από τις σκέψεις, επηρεάζουν την ανθρώπινη συμπεριφορά.
- Αναγνώριση των κριμένων πιστεύω και ενίσχυση, ή αλλαγή τους όταν είναι αρνητικά. **Ellis, 1994;**
Meichenbaum, 1977

Cognitive behavior modification

- The cognitive processing affects behaviors
- The cognitive processing / alter
- The changes in cognitive processing can help in behavior's changes .
-

Self talk and Self regulation

είτε σχολείο είτε σπορ είτε οικογένεια είναι το ίδιο



Self talk

- **In teaching non violence behavior** (Whittington & Moran, 1990).
- Όχι αυτό, ψύχραιμα, ευγενικά



Before or during the exams

- Relax, calm, I can,
- Breathe in breathe out



Self talk in exercise settings or health behaviors

- Η θετική αυτο-ομιλία και οι σκέψεις σχετίζονται με υγιεινές συνήθειες.
- Η αρνητική με τις αρνητικές συνήθειες.
- άσκηση, διατροφή, αποφυγή του αλκοόλ, και χρήση ζώνης.
- (Birkimer, Druen, Holland & Zingman, 1996)



Self talk and positive thinking

- Reminders that coaches may suggest to their athletes include “Let it go and focus on the next play” or “Focus on what is under my control.” Coaches should note that telling their athletes what *not to focus on* (e.g., “Don’t focus on the goalkeeper”) will likely produce the opposite effect.
- **Tedesqui, R., & Glynn, B. Focus on What?: Applying Research Findings on Attentional Focus for Elite-Level Soccer Coaching.** *Journal of Sport Psychology in Action*, 4:122–132, 2013 DOI: 10.1080/21520704.2013.785453

Self talk for exercise and health

I feel healthy, I can, breathe in, relax



An instrument for the measurement of self talk functions

- The aim of this investigation was to develop an instrument assessing the functions of self-talk (ST) in sports. Two studies were conducted for the development of the Functions of Self-Talk Questionnaire (FSTQ). In the first study, a prospective instrument was developed based on empirical evidence and a series of preliminary exploratory factor analysis. The results supported a five-dimensional 25-item solution. In the second study, the psychometric properties of the new questionnaire were tested. Confirmatory factor analysis (CFA) confirmed the hypothesized factor structure of the FSTQ. Furthermore, reliability analyses provided further evidence regarding the psychometric integrity of the instrument. The results of the study provide preliminary evidence regarding the multidimensionality of ST functions, suggesting that **ST in sports can serve to enhance attentional focus, increase confidence, regulate effort, control cognitive and emotional reactions, and trigger automatic execution.**
- The FSTQ seems a psychometrically sound instrument that could help with enhancing our understanding regarding the use and effectiveness of ST

- The results of the study provide preliminary evidence regarding the multidimensionality of ST functions, suggesting that ST in sports can serve
 - **to enhance attentional focus,**
 - **increase confidence,**
 - **regulate effort,**
 - **control cognitive and emotional reactions**
 - **and trigger automatic execution.**

Goal-directed ST intervention is a proposal, based on athletes' autonomous efforts to regulate their lives, which aims at developing “the coach within”, the voice which accompanies each athlete through his or her sport life

Review questions

2	Motivational self talk is:	
3	Instructional self talk is:	
4	For low level athletes the most effective type of self talk is:	
5	For high level athletes the most effective type of self talk is:	
6	Some key word of self talk for confidence are:	
7	Some key words of self talk for stress regulation are:	
8	Some key words of self talk for attentional control are:	

Thank you very much for your
attention

"We are what we think"
Buddha

FROM NEGATIVE TO POSITIVE SELF TALK

- **Tommy Haas talking to himself**
- <http://www.youtube.com/watch?v=8gQ2NhTEF44>
- <http://www.youtube.com/watch?v=8gQ2NhTEF44>

- **“People are not disturbed by things, but by the view they take of them.” -**
- **Epictetus**

Next studies in the area

- Self talk as a life skill, for exercise or healthy habits
- Self talk and self efficacy
- Self talk and concentration
- Self talk and stress control
- Motivational or instructional self talk,
 - in different sport settings,
 - young athletes versus professional athletes
 - Recreational versus professional athletes,

Next studies in the area

- **The effects of personal control, locus of control and anxiety on building self talk and performance**

Example of good practice

- 1. goal setting (number of trials)
- 2. focus on target-
- 3. video
- <https://www.youtube.com/watch?v=Vea873hZ82A>
- 4. imagery (3 times the target- 3 times the movement)
- 5. self talk- imagery
- 6. demonstration- self-talk-imagery

Example of good practice

Self-talk..

..I can..

..center..

..Follow-through..



- Goal setting
- “I want my posture to be straight and balanced, with a flat back and low shoulders. After I place my feet in the proper stance, I will make sure my hips are directly below my ribcage to flatten my back, and that my shoulders are straight but low and relaxed. I will keep my head held high and straight.
- I want to focus on having straight posture with a flat back for 80 percent of my shots this week.”
- I want to focus on a clean release and follow-through until it’s a habit.”

- Thanks for listening