

◆ Goal setting and performance: Why & how it works

◆ 2020

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The message of the day. The sport psychologist's perspective

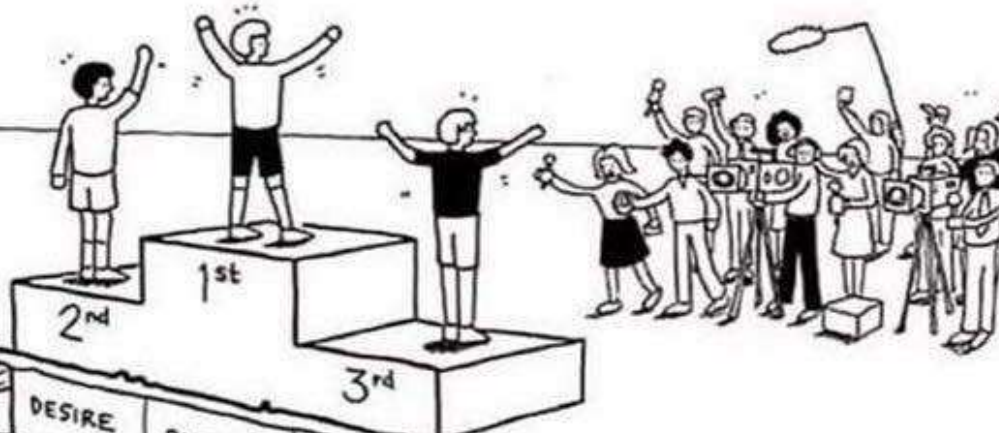
- ◆ **The No1 psychological skill used, by sport and exercise psychologists**
- ◆ Some thinks are within your control, and some thinks are beyond your control. Focus on yourself and on what you can control.

- ◆ Orlick, T. (2016). In pursuit of excellence. Champaign IL. Human Kinetics.
- ◆ Ollie Williamson, Christian Swann, Kyle J.M. Bennett, Matthew D. Bird, Scott G. Goddard, Matthew J. Schweickle & Patricia C. Jackman (2022): The performance and psychological effects of goal setting in sport: A systematic review and meta-analysis, International Review of Sport and Exercise Psychology, DOI: 10.1080/1750984X.2022.2116723

What people don't see:

Goal setting?

What we see



What we don't see

		EFFORT	DESIRE	PASSION	FOCUS		
	DOUBT	PAIN	TRAINING	FAILURE	HARD WORK	BLOOD, SWEAT & TEARS	
TESTS	GOALS	ELATION	INJURY	EARLY MORNINGS	LATE NIGHTS	IMPROVEMENT	
TRUST	JOY	FEAR	LISTENING	SACRIFICE	FEEDBACK	COURAGE	PATIENCE
WORK	GRIT	TIME	INNOVATION	DISCIPLINE	PERSEVERANCE	SADNESS	PLANNING
PREP	GUTS	SUPPORT	LONGELINESS	REJECTION	LEARNING	VISION	
SKILL	DIET	HOPE	MOTIVATION	STRATEGY			
PAIN	DRIVE	LOSS	COMMITMENT				
AIMS	ZEAL	SLEEP					
WILL	SWISH	HONESTY					
	SMELL	ATTITUDE					
	TEAM						

Listening well-while attending a lecture

- ◆ We hear half of what is said (50%)
- ◆ We listen to half of that (25%)
- ◆ We understand half of them (12.5%)
- ◆ We believe half of them (6.25%)
- ◆ And we remember half of that (3.125%)

- ◆ **My goal is to increase my attendance time**
- ◆ **My goal is to focus my attention for 50%**

That was between Phelps and his coach, Bob Bowman. "Michael began formal goal setting at age 12 and has elevated the process to an art form," Bowman tells me. "He may be the most goal oriented person on the planet."

<http://ilovetowatchyouplay.com/2016/06/01/michael-phelps-olympic-head-shares-a-secret-to-gaining-an-edge-in-any-sport/>



Michael's Goals

I would like to make the olympics,

I would like to make Jr. in atleast one event.

	FF	All star	Xmas
100 Fly	53.5	54.0	52.9
100 Breast	1:10	1:08	1:06
500 Free	5:05	5:00	4:58

I will accomplish those goals by
concentrating hard, working hard, and coming
to every practice.

Γ.Θ. Εργαστήριο Ψυχολογίας της Ασκήσης και ποιότητας ζωής

Topics

- ◆ **Basic goal setting principles**
- ◆ **Relevant studies**
- ◆ **Practical implications**
- ◆ **Experimental and group work**

◆ The hard theory behind

Essential elements of goal setting theory and the high-performance cycle

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: a 35-year old odyssey. American Psychologist, 57, 705e717.

Locke, E. A., & Latham, G. P. (2013). New developments on goal setting and task performance.

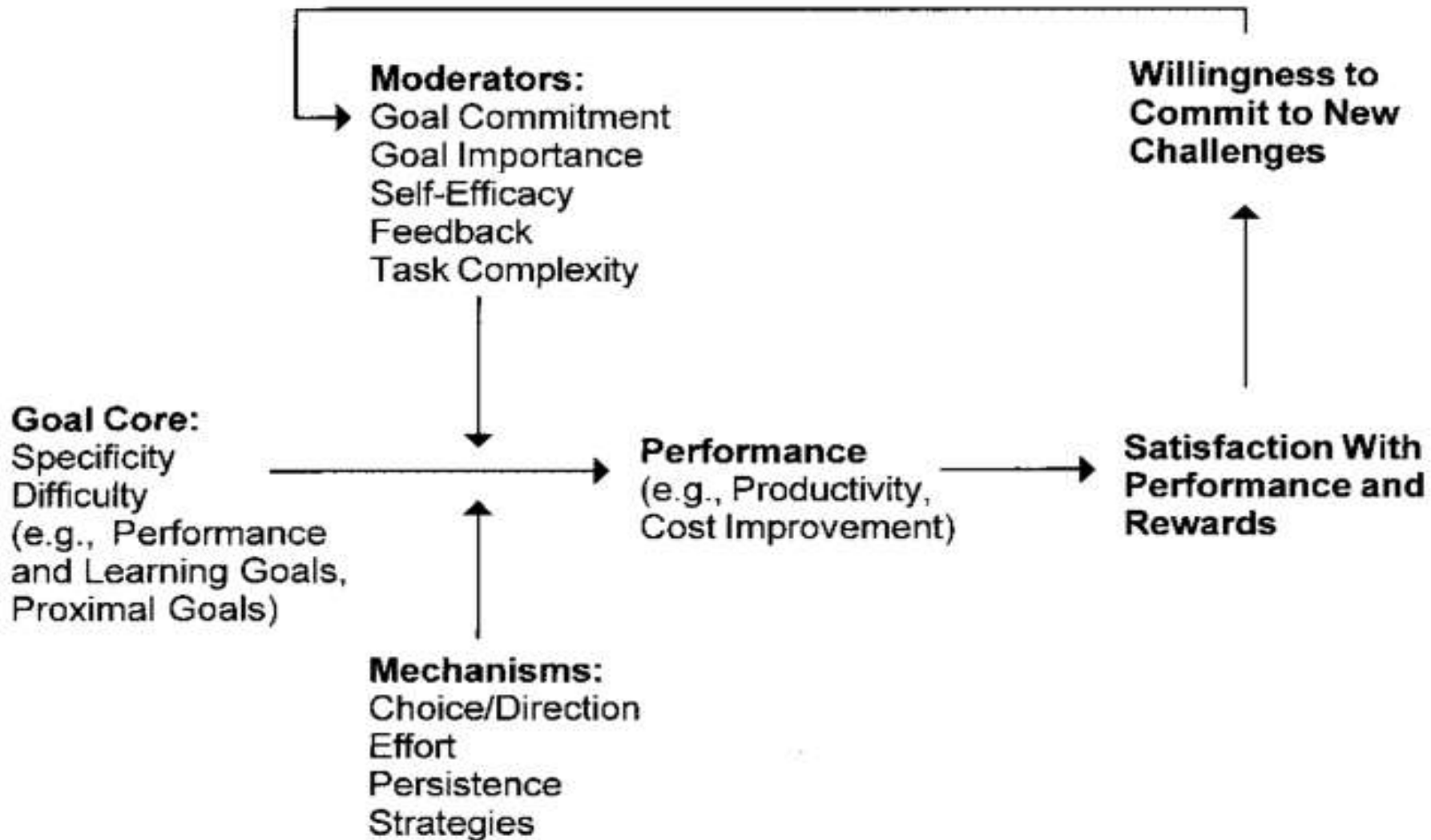


The theory states that

- ◆ a specific, high goal leads to higher performance than the setting of a vague goal such as to do one's best, or the setting of no goal at all. The higher the goal, the higher the performance given the following conditions (moderators):
- ◆ (1) ability, knowledge, or skill to perform the task, (2) commitment to the goal, (3) feedback on goal progress, and (4) situational resources; lack of situational constraints. The four mediators that explain the beneficial effect of a specific, high goal on performance are (1) the choice to (2) exert effort in a certain direction or on a certain task, and to (3) persist in doing so until the goal is attained. These three mediators are motivational. The fourth mediator (and also a moderator as noted above) is task strategy, a cognitive factor. Degree of goal attainment determines affect (satisfaction)

Figure 4

Essential Elements of Goal-Setting Theory and the High-Performance Cycle



Some theoretical issues

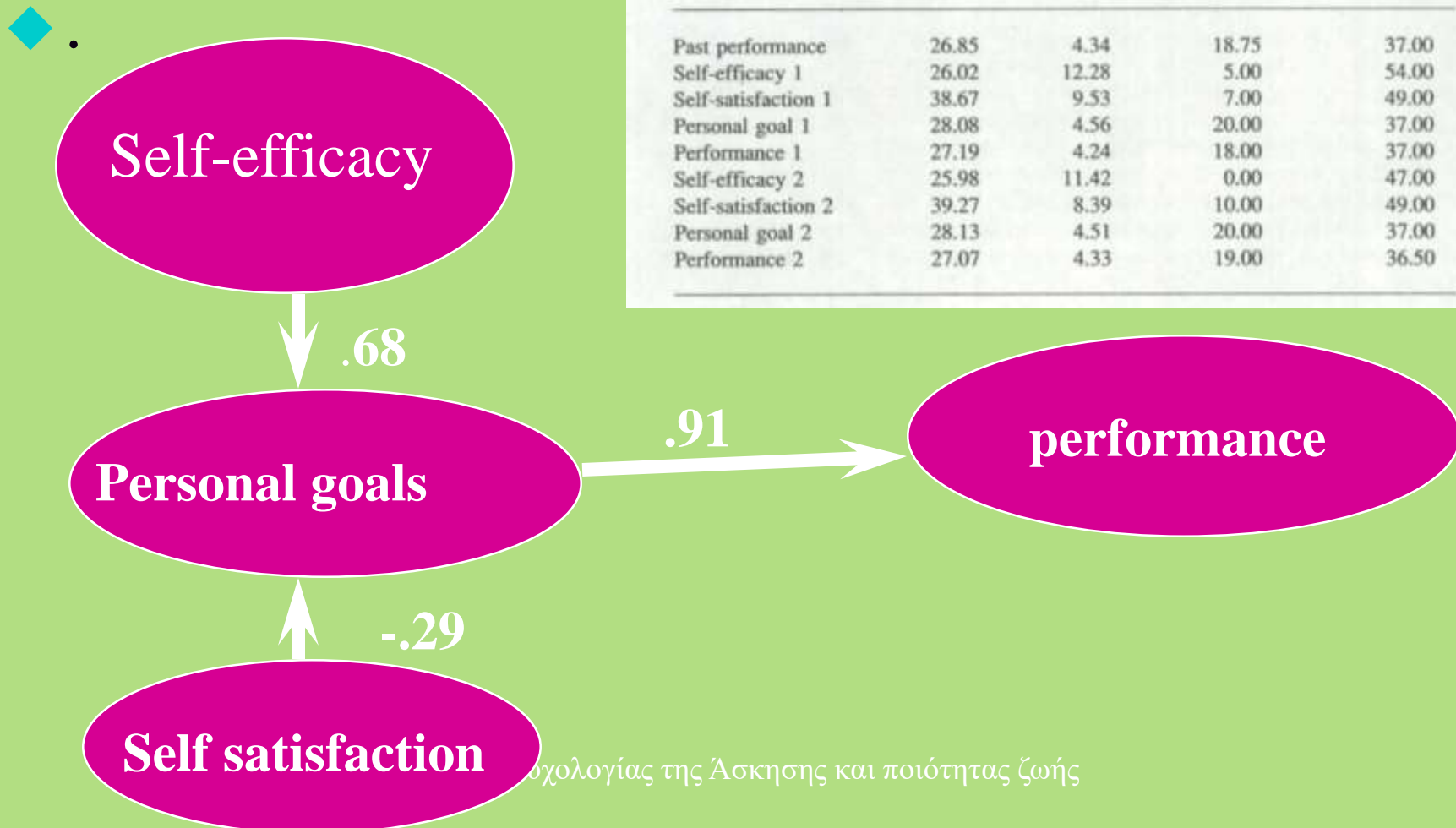
E. Locke, G. Latham. American Psychologist, 2002



Theodorakis, Y. (1995). Effects of self-efficacy, satisfaction and personal goals on swimming performance. The Sport Psychologist, 9, 245-253.

Table 1 Descriptive Statistics of Study Variables

Variable	<i>M</i>	<i>SD</i>	Minimum	Maximum
Past performance	26.85	4.34	18.75	37.00
Self-efficacy 1	26.02	12.28	5.00	54.00
Self-satisfaction 1	38.67	9.53	7.00	49.00
Personal goal 1	28.08	4.56	20.00	37.00
Performance 1	27.19	4.24	18.00	37.00
Self-efficacy 2	25.98	11.42	0.00	47.00
Self-satisfaction 2	39.27	8.39	10.00	49.00
Personal goal 2	28.13	4.51	20.00	37.00
Performance 2	27.07	4.33	19.00	36.50



- ◆ Subjects (N=42) performed four trials of a specific swimming task with ten minutes interval between each trial. During the third and fourth trials they performed after setting personal goals and completing self-efficacy and self-satisfaction scales. Results showed significant improvement in their level of performance in these two trials. Past performance, self-efficacy, self-satisfaction, and personal goal-setting were predictors of performance at the third and the fourth trial. A LISREL VI path analysis indicated that past performance was the main determinant of future performance. Personal goal-setting was affected by level of past performance, as well as by perceived self-efficacy and satisfaction. In a second stage of analysis, past performance was eliminated and results supported the mediating role of personal goals between self-efficacy and performance.

Combined effects of goal setting and performance feedback on performance and physiological response on maximum effort task.

- ◆ A cycle ergometer bicycle (Monark 815) was used for the test. The test involved an incremental resistance starting from 60 Watt (1 kg X 60 rpm) increased by 30 Watt every 3 minutes allowing for aerobic adaptation to take place before the anaerobic phase begins. The test was terminated when the participants could not maintain the initial pedal rate (60 rpm) for three consecutive revolutions.
- ◆ Participants performed an endurance task on an ergometer bicycle. One week later participants performed the task again with half of them setting a specific personal goal for an increase in performance. Results showed that subjects who set a goal showed significant improvement in comparison with the control group. Moreover, subjects in the goal group had a significantly lower heart rate during the test and had higher heart rates at the end of the test than in the first trial. Results are discussed in terms of combining cognitive and physiological explanations for the beneficial effects of goal setting on performance.
- ◆ Theodorakis et al., (1998). Combined effects of goal setting and performance feedback on performance and physiological response on maximum effort task. *Perceptual and Motor Skills*, 86, 1035-1041.

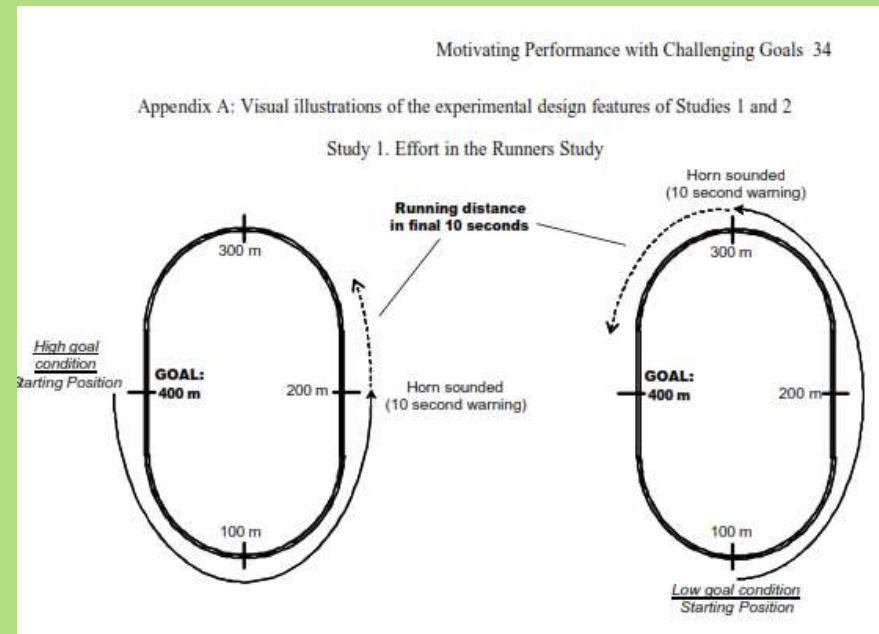
Table 1

Descriptive statistics for the variables of the study

	Experimental Group				Control Group			
	1st Trial		2nd Trial		1st Trial		2nd Trial	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Performance	896.15	274.1	1006.5	281.59	989.58	273.99	1008.8	295.81
	6	7				9		
Mean heart rate	153.10	12.28	146.95	7.69	154.47	11.50	153.37	10.64
Maximum heart rate	190.05	11.69	194.52	9.72	189.63	9.04	190.84	6.71

Running goal difficulty

- ◆ Using an alternative account of goal setting based on the prospect theory value function, we predict and find that, holding goal commitment constant, most people perform better with a goal that is just beyond their reach than a goal that is far beyond their reach.
- ◆ Once the horn was sounded to indicate the last 10 seconds of the task, participants ran an average of 63.1 meters in the lower goal condition and 59.6 meters in the higher goal condition, a statistically significant difference of 3.5 meters ($t(13)=2.56, p<.05$).
- ◆ See, K.E., C. Heath, and Fox, C.R. *Motivating individual performance with challenging goals: Is it better to stretch a little or a lot?* Working Paper, New York University.



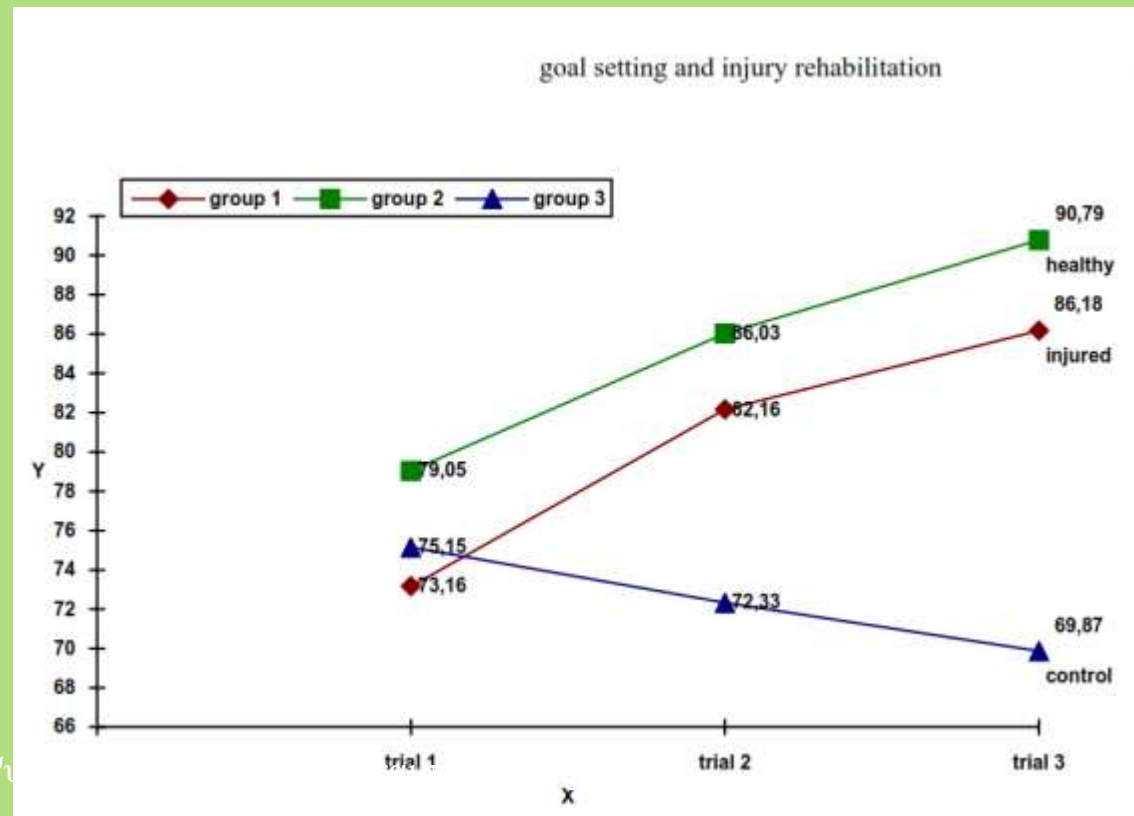
The strategy of multiple goals (Filby, Maynard, & Graydon, 1999).

- ◆ **Set Process and performance goals for each outcome goal.**
- ◆ **It was effective in experienced athletes**

Personal goal setting on injury rehabilitation study

Two experimental groups, and one control group. The first group consisted of knee injured females (n=30), and the second of healthy women (n=29). They performed four trials of a specific knee extension task on an isokinetic dynamometer (CYBEX 6000). Prior the third and fourth trial, subjects set personal goals and completed self-efficacy and self-satisfaction scales. The results showed a significant improvement of performance for the two groups indicating the importance of personal goal setting on injury rehabilitation

Γ.Θ. Εργαστήριο Ψ



Injury rehab

Examining Psychological Factors During Injury Rehabilitation

Yannis Theodorakis, Anastasia Beneca, Parascevi Malliou, and Marios Goudas

The aim of this study was to examine the effectiveness of goal setting on performance and on a number of psychological variables such as self-efficacy, pretesting anxiety, and self-satisfaction during an injury rehabilitation program. An experimental group ($n = 20$) and a control group ($n = 17$) of injured physical education students were studied. Both groups underwent a 4-week quadriceps strengthening program on an isokinetic dynamometer, with the experimental group setting specific personal goals in each training session. The experimental group improved in performance significantly more than the control group. Although both groups exhibited an increase in self-efficacy and a decrease in pretesting anxiety, only the experimental group had an increase in self-satisfaction with performance. Results confirm that incorporating goal setting in the rehabilitation process enhances rehabilitation results.

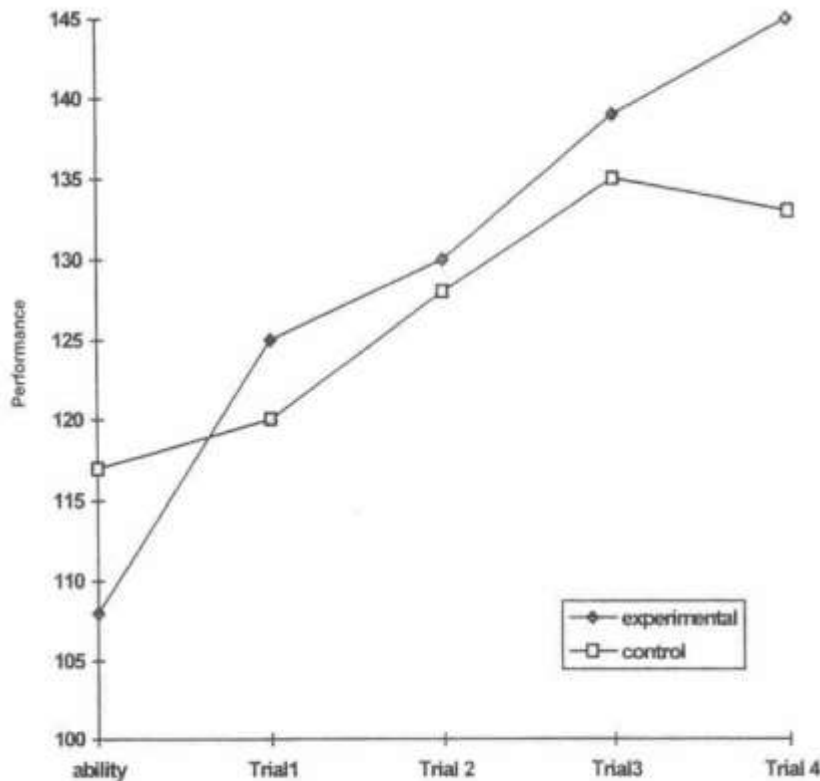


Figure 1 — Performance of the two groups across the four trials.

ας της Άσκησης και ποιότητας ζωής

Based on previous studies

- ◆ How a sport psychologist can work with coaches, trainers or athletes
- ◆ Testing and.....

****Goal setting and imagery
1 runner, and 2 non athletes*

- ◆ <http://www.online-stopwatch.com/full-screen-stopwatch/>

Work in groups

- ◆ **My basic goal for this graduate program is...**
- ◆ **Some good examples**
- ◆ **Goals for my top level athletes:**
- ◆ **Goal for my recreational athletes:**

Big visions, little steps

- ◆ **Excellence is a combination of big visions and little steps**
- ◆ **Little steps are smaller visions, what you do each day to move toward your dreams**

- ◆ **Terry Orlick**
- ◆ **The first step, control**

*****Presentation of ,,,,*

- ◆ 2 track and field athletes

***3 *GROUPS*

- ◆ 1. personal goal setting
- ◆ 2. group goal setting (1 instructor)
- ◆ 3. team goal setting (1 instructor)

Exercise 1. PERFORMANCE AND GOAL SETTING ON HAND GRIP, Erasmus mundus students 2012-2016

Performance 1 36.7	Goal 1	Performance 2 39.5
36.22	38.46	39.39
25.80	27.40	28.10
38.25		41.92
34.12		38.67
37.83		40.61
<u>35.46</u>		<u>37.85</u>

*****Exercise 2**

PERFORMANCE AND GOAL SETTING ON ACCOURACY TEST

Hard work is essential to get where you want to go, but it will only get you there if you pursuing...

The right thinks,

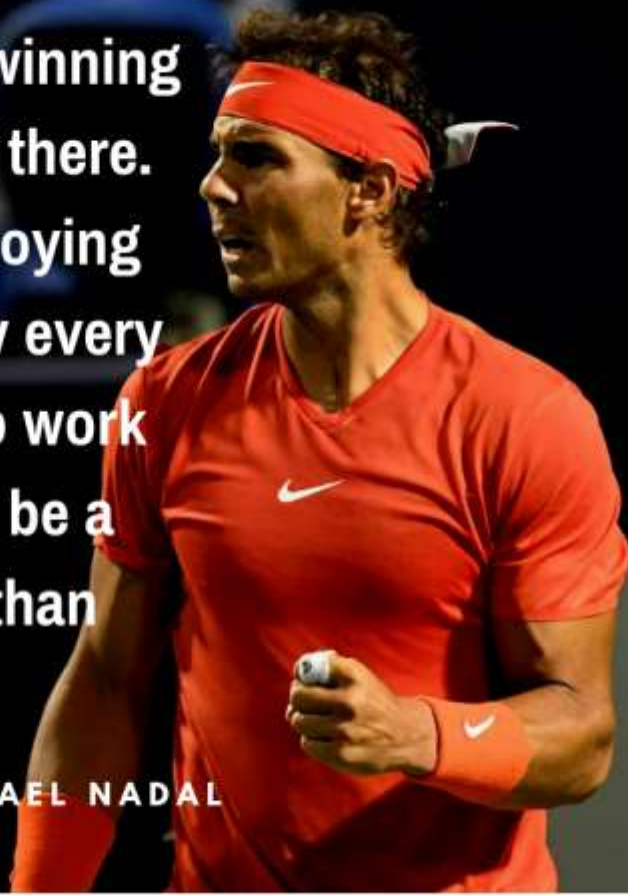
The right place

At the right time

**Goals that are inspiring and relevant
put you on a positive path.**

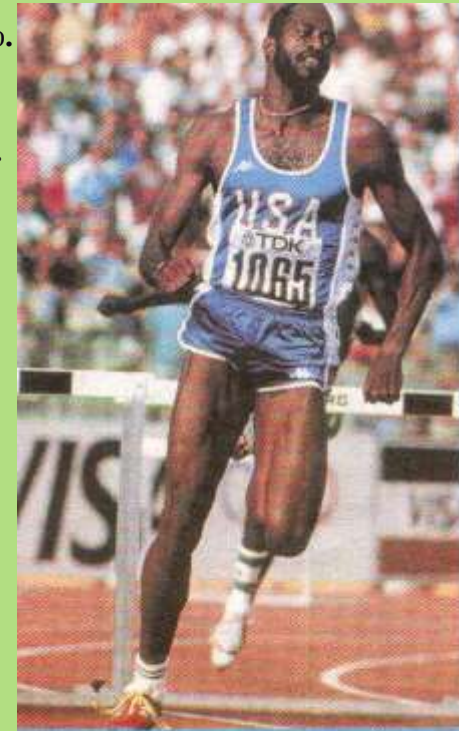
The glory is not winning here or winning there. The glory is enjoying practicing, enjoy every day, enjoying to work hard, trying to be a better player than before.

- RAFAEL NADAL



Edwin Moses
the greatest 400m hurdler
athlete,
has not lost a race for
many years

Ποτέ δεν μπαίνω στην αυλή του άλλου να δω πως έχει τακτοποιήσει το πρόγραμμά του. Αυτό που έχω μάθει είναι να νοιάζομαι για το δικό μου κήπο. Ποτέ δεν έκανα κάτι για να νικήσω κάποιον άλλο. Όταν έτρεχα, έτρεχα μόνος μου. Δεν με ενδιαφέρει η αντιπαλότητα αλλά η τελειότητα σαν εμπειρία.



Έντουιν Μόουζες

Work in groups

My goal is.....	Wrong	Correct
To win the game? (for basketball players)		
To win the game? (for tennis players)		
To win the race? (for runners)		
To run the 100 meters in 10"		
To win a gold medal in Olympic games		
To run 20 kilometers this week? (recreational athletes)		
To make 20 points in the game (Basketball)?		
To make 80% free throw shots? (basketball)		
To improve my performance by 20 centimeters during the next Olympic games (for long jumpers)		
To improve 10% my performance each month, in sit-ups		



Outcome

performance

MEN'S SINGLES - Final Court Philippe-Chatrier - 2h41

COMPLETED



#1 N.DJOKOVIC

N.Djokovic (1)

0 2 5 - -

R.Nadal (2)

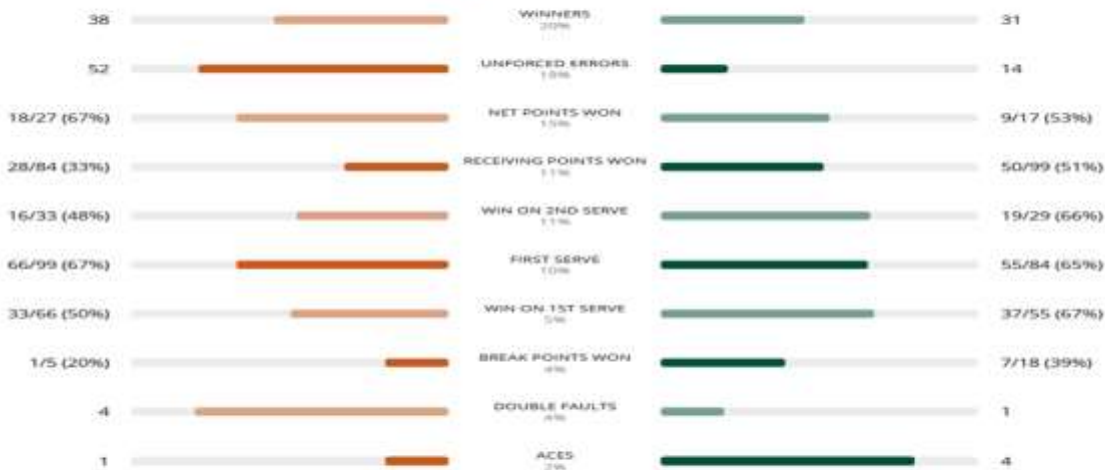
6 6 7 - -



#2 R.NADAL

STATISTICS

SORT BY SIGNIFICANCE



SERVICE SPEED (MPH)



ns

Defining goals

- ◆ A goal is an objective, a standard, an aim of some action, or a level of performance, or proficiency.

Three different types of goals

- **Outcome goals** focus on the end result or outcome of an event or competition **such as winning and losing.**
- **Performance goals** help athletes focus on improving their **own performance.**
- **Process goals** focus on **how** an athlete performs **a specific skill.**
- For every outcome goal, there should be several performance and process goals set that provide the stepping-stone pathway to achieving that outcome.

Managing thoughts and behaviors

- ◆ A goal is simply a target, or a specific standard or accomplishment that one strives to attain.
- ◆ Goals must be incorporated into a systematic mental training program that enables athletes to plan, set, focus on, evaluate, and manage their behavior and thoughts in relation to their goals

Why goal setting works?

- ◆ When used systematically, goal setting works because it focuses attention on specific task demands, increases effort and intensity, encourages persistence when adversity is encountered, and promotes the development of strategies and problem solving to move toward goal achievement

Why goal setting works

- ◆ **Goals direct attention to important elements of the skill being performed**
- ◆ **Goals mobilize performance effort**
- ◆ **Goals prolong performance persistence**
- ◆ **Goals foster the development of new learning strategies.**
- ◆ **goals affecting confidence level satisfaction & reduce anxiety**

Control the controllable

- ◆ **The important distinction between outcome, performance, and process goals indicates that mental skills are enhanced when athletes focus on the right goals at the right time.**
- ◆ **Because outcome goals are uncontrollable, yet attractive and exciting, they are useful in enhancing motivation for the exhausting physical and mental preparation needed to achieve typical outcomes goals, such as winning championships or medals.**

Work in groups, by using a ball

Basic goal setting principles

- ◆ **Set specific and measurable goals**
- ◆ **Set moderate difficult but realistic goals**
- ◆ **Set long and short term goals**
- ◆ **Set performance and process goals**
- ◆ **Set practice and competition goals**
- ◆ **Develop plans to reach goals**
- ◆ **Set individuals and team goals**
- ◆ **Reevaluate goals**
- ◆ **Record/ Write down goals**

Basic goal setting principles

- ◆ **Develop goal-achievement strategies**
- ◆ **Foster an individuals goal commitment**
- ◆ **Provide goal support**
- ◆ **Provide goal evaluation**

SET Performance goals

- ◆ **more flexible and controllable for athletes, which allows them to continually raise and lower goal difficulty levels to remain challenged and successful in their pursuit of exciting outcome goals.**

Process goals

- ◆ are used in immediate situations to enable athletes to focus on specific task demands in productive ways, such as occupying their minds with key verbal cues that lock in optimal performance images and plans.

Carl Lewis

- ◆ I' am the type of athlete who does't worry about winning or losing. **I only worry about being on the level where I can perform.....**
- ◆ I am not worrying about winnig or losing, because as long as I compete at the level I know I can, that's goint to take care of itself.



- ◆ **Win by removing all thoughts of winning, but by having a specific personal performance goal in your mind.**

Principles

**For every outcome goal,
set performance and process goals**

Reduce anxiety

- ◆ **Increase confidence**
- ◆ **Increase concentration**
- ◆ **Increase performance**

Goal setting and control

- ◆ Athletes should set performance goals that are 100% (or as much) under their control.
- ◆ Practical implication
 - ◆ 1. To win the game?
 - ◆ 2. To run 20 kilometers this week?
 - ◆ 3. To make 20 points in the game (Basketball)?
 - ◆ 4. To make 80% shots?

Goal should be an important part of any intervention that uses goal setting as a mental training technique

- ◆ **Other attributes of effective goal setting are the use of specific, difficult, and measurable goals, an emphasis on desired behavioral outcomes as opposed to a focus on problem statements, the use of short- and longterm goals, and a congruency between individual and team goals**

Set realistic goals

- ◆ **Help athletes to come to know who they really are**

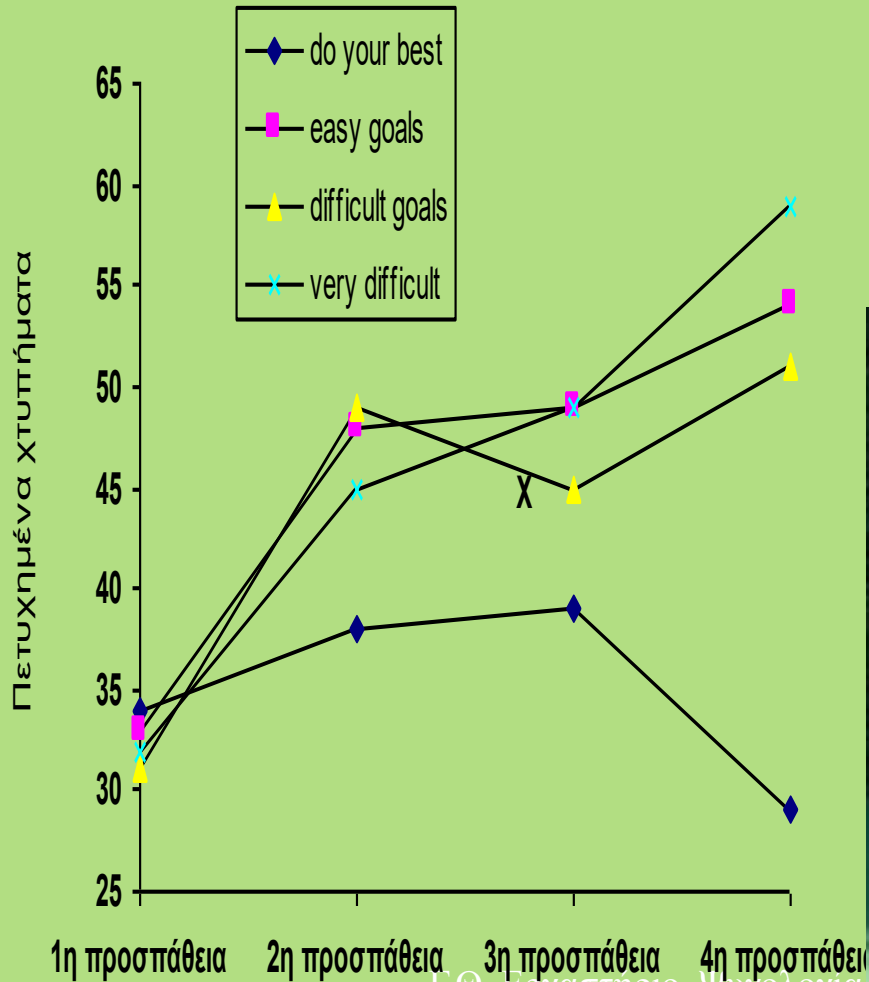
Principles

◆ **Challenging versus easy goals**

◆ **Set moderate, difficult but realistic goals**

Relevant study

an experiment with tennis players



Γ.Θ. Εργαστήριο Ψυχολογίας



Principle

- ◆ **Research shows that challenging goals yield better performance than moderate or easy goals**
- ◆ **Goals that are too difficult lead athletes to conclude they are failures**
- ◆ **20% 40%.**

Practical implication The staircase approach
A test on sit-ups in 5 month period 1 min'
from 20 to 45 repetitions



◆ <i>month 5</i>	<i>goal 5</i>	<i>45</i>
◆ <i>month 4</i>	<i>goal 4</i>	<i>40</i>
◆ <i>Month 3</i>	<i>goal 3</i>	<i>35</i>
◆ <i>Month 2</i>	<i>goal 2</i>	<i>30</i>
◆ <i>Month 1</i>	<i>goal 1</i>	<i>25</i>
◆ <i>Baseline performance</i>		<i>20</i>

Principle

- ◆ **Set specific goals not general**
- ◆ **Measuring the performance not the outcome and give feedback**
- ◆ **In order to quantify specific performance goals**

The “do your best” condition

- ◆ Athletes could never exceed it, because no one ever knows exactly what their best is.
- ◆ Meta-analyses indicated that the “do your best” does not work.

Basic goal setting principles

- ◆ **Not “do your best”**
- ◆ **Not “no assigned goals”**

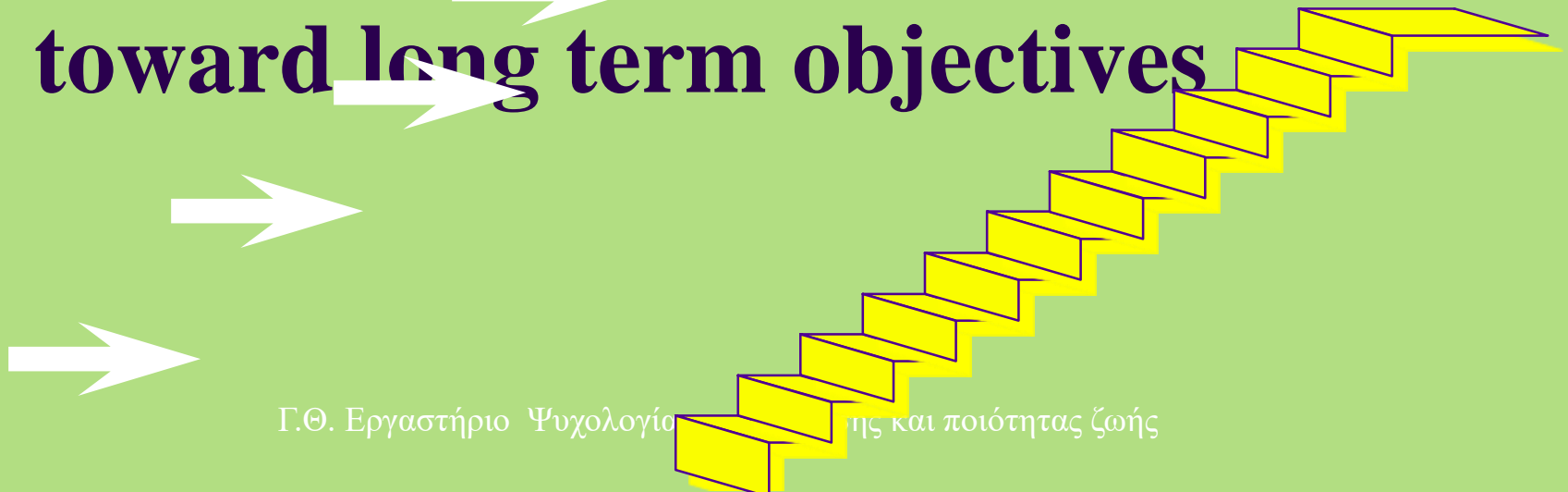
- ◆ **Practical implication:**
- ◆ **avoid relevant type of instruction**

Principle

- ◆ **Short term versus long term**



Set short term goals in order to provide opportunities in moving toward long term objectives



Designing a goal setting system

- ◆ Instructor leader preparation
- ◆ Education and acquisition
- ◆ Implementation and follow up
- ◆ set goals in diverse areas
 - ◆ individual skills
 - ◆ team skills
 - ◆ fitness levels
 - ◆ playing time
 - ◆ enjoyment
 - ◆ psychological skills

Record Daily goals

- ◆ Out of sight,
out of mind
- ◆ cards, training
logs
- ◆ in the locker
rooms
- ◆ on the bedroom
mirror



Summary

SMART

- ◆ **SPECIFIC.** Goal should indicate precisely what is to be done.
- ◆ **MEASURABLE.** Goals should be quantifiable
- ◆ **ACTION ORIENTED.** Goals should indicate something that needs to be done.
- ◆ **REALISTIC.** Goals should be achievable given various constraints.
- ◆ **TIMELY.** Goals should be achievable in the reasonable time.
- ◆ **SELF-DETERMINED.** Goals should be set by, or have input from the participant.



D. Tambakos Olympic medal in Sydney 2000 and Athens 2004

- ◆ *His statement at Sydney 2000*
- ◆ *What I was interested in was to correctly execute my routine. I took this game as a challenge to solely focus on my program's execution, removing any thoughts of medal from my mind.*
- ◆ *His statements in Athens 2004*
- ◆ *«The medal was not my goal. My goal was to perform a program with a score of more than 9.800».*



Goals in team sport, the coach of the national Greek basketball team P. Gianniakis, Eurobasket 2005

- ◆ *The players should realize that they have to think only, of how they will play in those seconds that attack or a defense takes place, and not the game as a whole, its seriousness, its criticality and the score*



Practical implication

- ◆ *To perform 40 successful tree throw shots on Monday*
- ◆ *To improve 10% your performance in this specific test.*
- ◆ *To spent 20 min for teaching the technique of the sport .*

Practical implication

- ◆ **Until the end of this year...**
- ◆ **To improve your performance about 100% in sit-ups...**
- ◆ **To improve 10% your performance each month, in sit-ups....**

High jump

- ◆ *Not too difficult goals eg. To improve the performance from*
- ◆ *2,00 meters in January to 2.10 in May*



Individual versus team goals

- ◆ Team goals can help and motivate athletes to work more effectively together, but they must be accompanied by individual goals that hold the athlete responsible and that are within his or her control.
- ◆ Avoid team outcome goals

Work in groups, find the correct.....

Goal setting for team sports (soccer)

- ◆ “to improve my dribbling”
- ◆ “when dribbling at a high speed, the ball is within 2 feet of my body.”
- ◆ “to score more goals”
- ◆ “during shooting exercises in practice, 75% of my shots are on the frame of the goal” or “score at least 5 goals a week during full field matches in training.”
- ◆ “shoot the ball harder”
- ◆ “receive the ball with the proper area of the foot 7 of 10 times the ball comes in to my feet”
- ◆ or “shoot the ball with more accuracy than power.”
- ◆ “win 75% of tackles in 1v1 situations.”
- ◆ Three team-level goals (a) a specific number (i.e., adjusted based on the opponent) of corners earned per game, (b) a specific number of shots on goal per game, and (c) to score first each game.

- ◆ Gillham, A., & Weiler, D. (2013). Goal Setting with a College Soccer Team: What Went Right, and Less-Than-Right Journal of Sport Psychology in Action, 4:97–108. DOI: 10.1080/21520704.2013.764560

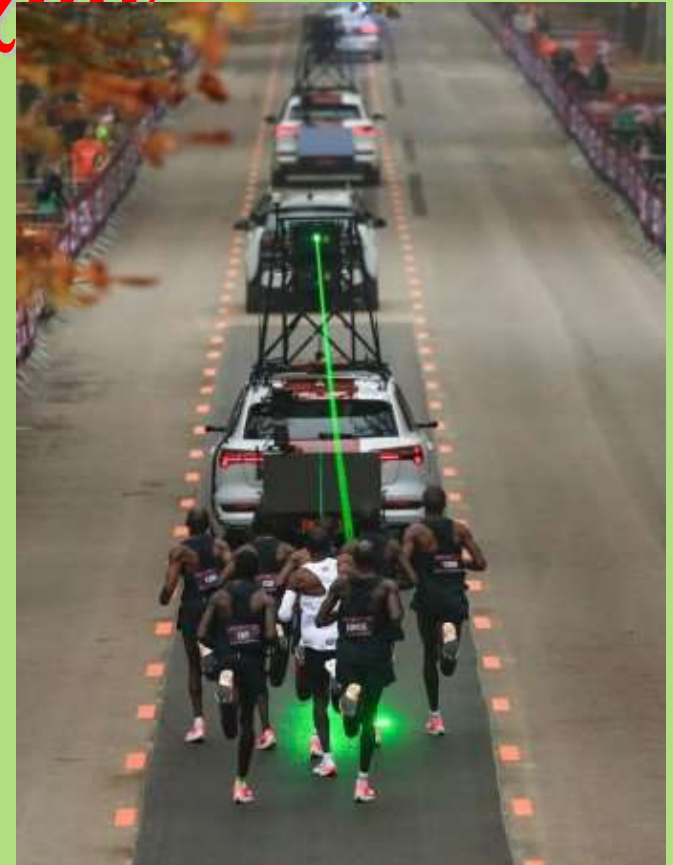
The glorification of goal setting

The break of 2.00 h in marathon race

Η αποθέωση των στόχων

With a leading pace car beaming green lasers on to the road to indicate the required pace of 2:50 per kilometer, Kipchoge never went slower than 2:52.

To break the mark, he had to run 100m in 17.08 seconds 422 times in a row at a speed of 21.1kph (13.1 mph).



Limits are there to be broken. By you and me together.

I can say that I am beyond happy today that the official world record is once again faster. Thank you to all the runners in the world that inspire me every day to push myself whereby I hope this result will inspire you to break your own limits. Whether that is your first run, a new personal best and anything in between. Believe that with the right heart and mind you can achieve greatness in all of life.

Berlin, I cannot express my gratitude enough. From the organization to the fans but also all the participants today who all won their own race today.

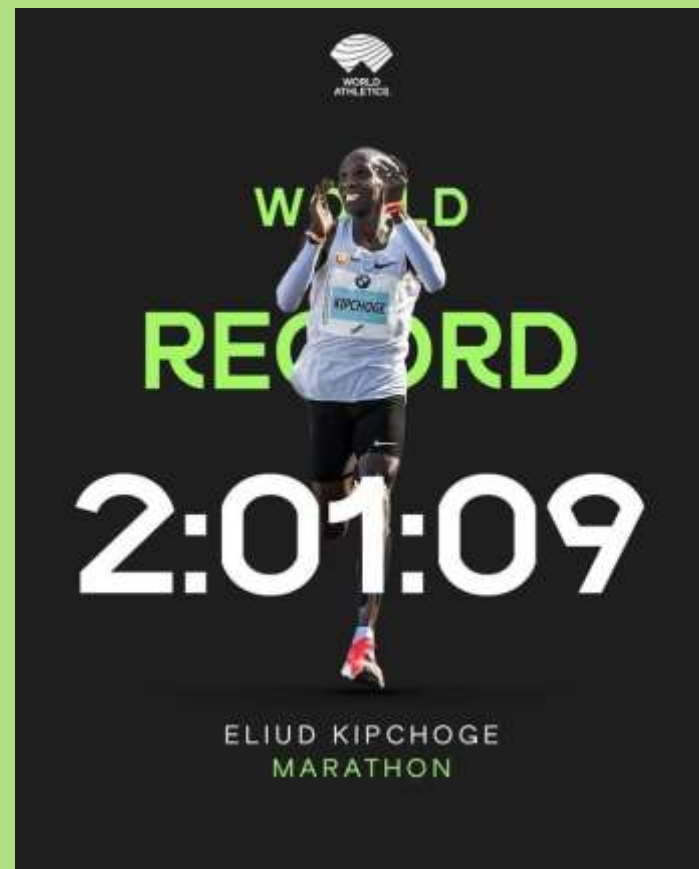


TABLE 1 Examples of the Progression from Initial Idea to Final Goal for Collegiate Soccer Players

Target	Initial Idea	First Revision	Final Goal
Forwards	Work on moves	Use a move to beat a defender	Beat opponent in 1v1 situation with positive outcome 60% of the time
Forwards	Use passes better	Successful combination play	Achieve a combination in the attacking 1/3 to get behind opponents' back line 5 times a game
Attacking Midfielders	Find open space on the field	Dribble penetrate	With space in front, dribble penetrate resulting in a goal scoring opportunity 3 times a game
Defensive Midfielders	Switch the field	Passing penetration through changing the point of attack	When the opponents are overloaded on one side of the field, change the point of attack by passing penetrating balls 5 times a game
Central Defenders	Tackle hard	Execute a ball winning tackle	Execute a ball winning tackle, and connect a pass to a teammate on 75% of all tackles won
Central Defenders	Clear balls	Clear a ball up field to relieve pressure	Clear balls into wide areas of the field to teammates 75% of all "under pressure situations"
Outside Defenders	Cross balls into the 18 yard box	Go far post to get in behind the opponent's back line	Combine with same-side outside forward resulting in served ball into the 18 yard box 5 times per game
Outside Defenders	Pressure the ball	Get tight to opponent quickly	Confront opponent high on the field forcing them backwards 60% of the time
Goalkeepers	Talk to teammates more	Use words such as drop, step, and mark	When the ball is around our 18 yard box, use specific communication (e.g., mark up, get tight, look around) to organize teammates
Team Goal 1	Be dangerous in attacking 1/3 of the field	Get 50 corners in a season	Earn 5 corners a game with our team winning the ball 90% of the time off of the corner
Team Goal 2	15 shots a game	Put shots on frame	Have 50% of our total shots taken in each game be on the frame of the goal
Team Goal 3	Be ready to play right away	Don't give up a goal in first 5 minutes	Be the first team to have a shot on frame each game

Personal goal setting and commitment

- ◆ Set self-set or personal goals rather than assigned goals
- ◆ Confidence in sports and daily life
- ◆ Motivation,
- ◆ commitment
- ◆ Performance improvement
- ◆ Personal control

What research says

- ◆ Over 90% of the studies show that goal setting has a powerful effect on behavior (Lock & Latham, 1990)
- ◆ Goal setting is a behavioral technique that works.
- ◆ Μια πρόσφατη συστηματική ανασκόπηση σχετικών εργασιών με αθλητές και συγκεκριμένα ατομικά και ομαδικά αθλήματα, οι οποίες περιγράφουν παρεμβατικά προγράμματα που χρησιμοποιούν την θεωρία των στόχων, έδειξε ότι οι αρχές των στόχων πραγματικά ισχύουν και αποδίδουν, και είναι χρήσιμες για αθλητές προπονητές και αθλητικούς ψυχολόγους. Ο βαθμός δυσκολία των στόχων, το πόσο συγκεκριμένοι είναι, η μορφή των στόχων, η αρχική ικανότητα των αθλητών, ο βαθμός δέσμευσης, ο τρόπος της ανατροφοδότησης και η περιπλοκότητα αυτών πάντα πρέπει να λαμβάνονται υπόψη των προπονητών και των αθλητικών ψυχολόγων (Jeong, Healy, & McEwan, 2021).
- ◆ Jeong, YH., Healy, LC & McEwan, D. (2021): The application of Goal Setting Theory to goal setting interventions in sport: a systematic review. *International Review of Sport and Exercise Psychology*, DOI: 10.1080/1750984X.2021.1901298
- ◆ Kyllö, L. B., & Landers, D. M. (1995). Goal setting in sport and exercise: A research synthesis to resolve the controversy. *Journal of Sport and Exercise Psychology*, 17(2), 117–137. <https://doi.org/10.1123/jsep.17.2.117>.
- ◆ Locke, E. A., & Latham, G. P. (2019). The development of goal setting theory: A half century retrospective. *Motivation Science*, 5(2), 93–105. <https://doi.org/10.1037/mot0000127>.

Meta-analysis

- ◆ **Tasks like sit-ups, basketball throws, swimming, tennis serves, etc.**
- ◆ Goal setting improves performance in sport by 0.34 of a standard deviation (Kyllo & Landers 1995)
- ◆ and that moderately difficult goals, both short term and long term, specific, publicly, personal, and performance goals
- ◆ Systematic reviews and meta-analyses provide evidence that multi-component goal-setting interventions are generally effective in promoting physical activity behavior (McEwan et al., 2016), and that goal setting is an effective behavior change technique that can be considered a fundamental component of successful behavior change interventions (Epton, Currie & Armitage, 2017).

Work in groups

Column 1	Column 2
Athletes should focus only on victory and how to win, because.....	Athletes should focus only on increasing their performance, because.....

Tips for sport psychologists: How to built a goal setting interview?

- ◆ Let them.....
- ◆ To tell his/her history
- ◆ His/her dreams and outcome goals
- ◆ From winning to performance
- ◆ From general to specific
- ◆ Ask questions again and again
- ◆ To set his/her own personal goal,
- ◆ not yours, nor his/her coach

GROW

- ◆ Goal: what would you like to discuss?
- ◆ Reality: What is happening now? What have you done so far?
- ◆ Options: what could you do? What might help you?
- ◆ Will: what are the next steps? What can I see next week?
- ◆ Gould, D. (2021). Reflections from a career in sport psychology. Outskirts Press, Inc.

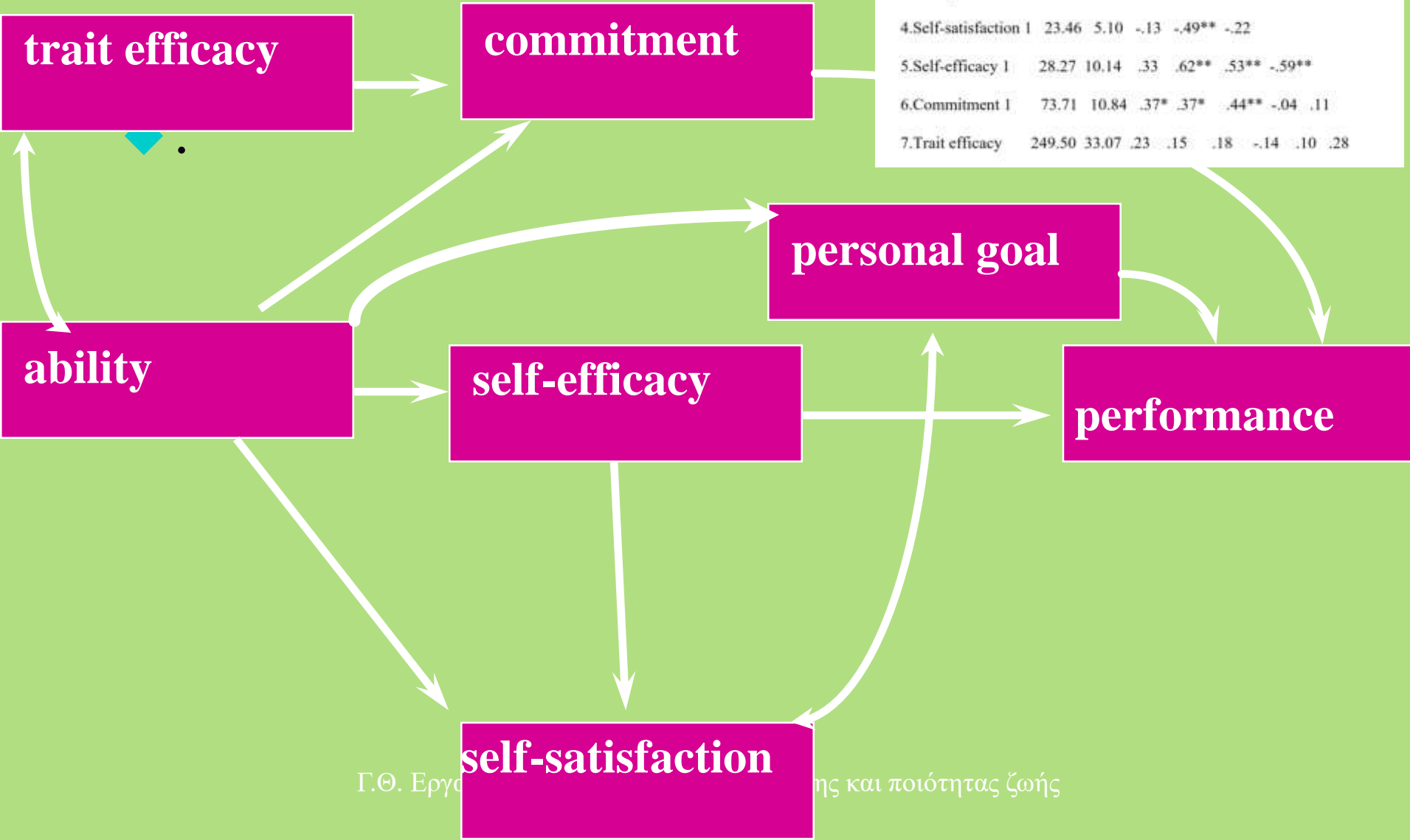
Goal setting and self efficacy

- ◆ Goal-setting theory is well integrated with Bandura's self efficacy theory. Self-efficacy is affected positively by the level of the assigned goal and affects the level of self-set goals. It facilitates goal commitment and the choice of effective task strategies. Self-efficacy can have main effects as well as effects through the level of a self-set goal.

Theodorakis, Y. (1996) The influence of goals, commitment and self-efficacy on motor performance. Journal of Applied Sport Psychology, 8, 171-182.

The study examined how goals combine with other factors in determining performance in a sport setting. More specifically, the effects of goal setting, commitment, self-efficacy, trait-efficacy, ability, and self-satisfaction on tennis performance were examined. Subjects (N=48) performed four trials of a specific service task. Before the third and fourth trials subjects set personal goals. The psychological variables, self-efficacy, self-satisfaction and commitment, were also assessed prior to each trial. Results showed that ability, self-efficacy, goal setting, and goal commitment were predictors of performance at the various stages of the experiment. Analysis of two LISREL VI models (one for each trial) indicated that personal goal setting was affected by level of ability, as well as by perceived self-efficacy and satisfaction. Self-efficacy and goal commitment were a direct as well as indirect determinants of performance.

Goal setting in tennis, Theodorakis, 1997. JASP



Trial 3

Variable	Mean	SD	1	2	3	4	5	6
1.Performance 1	6.79	3.02	-					
2.Personal goal 1	9.38	2.65	.60**					
3.Ability	6.00	2.48	.60**	.70**				
4.Self-satisfaction 1	23.46	5.10	-.13	-.49**	-.22			
5.Self-efficacy 1	28.27	10.14	.33	.62**	.53**	-.59**		
6.Commitment 1	73.71	10.84	.37*	.37*	.44**	-.04	.11	
7.Trait efficacy	249.50	33.07	.23	.15	.18	-.14	.10	.28

Goal setting for marathon runners

- ◆ 21 Km to date? 22 Km to date?
- ◆ 21 Km to go? 20 Km to go?
- ◆ One Km to go?
- ◆ My goal is to continue in this pace for 21 Km, for 20 Km, for 19 Km
- ◆ My goal is to complete in this pace 42 Km
- ◆ My goal is to continue in this pace for one Km.



- ◆ Some (serious number of) years ago, Frank O'Block and Frederick Evans developed a mathematical formula for goal setting that they described as Interval Goal Setting. I'd like to present it as a method to a specific client in order to assist in realistic goal setting. Problem: I can't find much on line about it (I can recall reading a chapter that O'Block wrote in...some book). Best I've bumped into thus far is http://www.maicsa.org.my/article_feature/2016/article_feature_1604_5.aspx



Next studies in the area

- ◆ **Goal mechanisms (effort, strategies, direction, confidence, concentration, anxiety control)**
- ◆
- ◆ **Goal setting and physiological responses on a maximum effort tasks. Goal setting and physiological variables (eg. heart rate)**
- ◆ **Goal setting and personal control**

How to use the goal setting theory in physical education settings?

Theodorakis, Y., Hatzigeorgiadis, A., Chroni, S., & Goudas, M. (2007). Goal setting in physical education. In J. Liukkonen, Vanden Auweele, Y., Vereijken, B., Alferman, D., & Theodorakis, Y. (Eds.) Psychology for physical educators. (pp. 21-34). Champaign, IL: Human Kinetics.

For new exercisers or beginners

1. To exercise regularly.

Wrong or correct?
(1) (2)

2. Goal setting for 6 months. In total, 150-250 minute of brisk walking, 3-5 times per week.

(1)

(2)

3. Goal setting for 6 months: 150-250 minutes of jogging, 3-5 times per week

(1)

(2)

Process goals

4. Where do we focus when jogging?
a. on rhythmic breathing,
b. on external environment

(1)

(2)

Novice runner, for his/her participation in public races up to 10km	To participate in a half marathon next month.	Wrong (1)	or correct? (2)
	Goal setting for 6 months: 150-250 minutes of low intensity running per week.	(1)	(2)
	Goal setting for 6 months: low intensity running for 5-6 hours per week.	(1)	(2)
	Goal setting for 6 months: moderate intensity running for 5 hours per week, where a specific distance will be covered.	(1)	(2)
	Goal setting for 6 months: Running for about 30 Km per week, where some Km will be on a pace of 6.30 to 7.00 minutes/Km	(1)	(2)
	Where to focus when running? a. On rhythmic breathing, b. on the coordination of breathing and stride patterns c. on pulses 120-150 per min for about 30 Km.	(1)	(2)
Process goals			

<p>For all those who run long-distances and want to achieve more</p>	<p>1st Goal: Preparing for years</p> <p>2st Goal: Define a specific number of Km, which covers the preparation under a specific pace, under the different phases of training sessions.</p> <p>3rd Goal: Write all the aforementioned information at a board every day.</p>	<p>Work in groups</p>
<p>Process goals</p>	<p>4nd Goal: Follow a strict program in training, nutrition and lifestyle.</p> <p>5th Goal: Learn to focus either on the pace, or on the breathing, or on the steps and on the breathing, or at external stimuli.</p> <p>6th Goal: Define a specific time to be accomplished per Km, either at the training or at the race.</p> <p>7th Goal: The ultimate mistake is to focus on the medal or at the ranking positioning, 1st, 2nd, 3rd</p>	

2. Goal setting to quit smoking	1. to quit smoking tomorrow	Wrong (1)	correct (2)
Process goal Breathing instructions	1. To walk for 7 hours per week	(1)	(2)
	1. To control my stress and anxiety	(1)	(2)
	1. to repeat this exercise every time when a feel the desire to smoke Breathe calmly and smoothly. While breathing in, think « in ». While breathing out, think « out ». Think «...in... and ...out..., in... and... out...». Count from 1 to 10 without losing your counting. Focus on the breathing and the counting and clear your mind of any thought.	(1)	(2)
Guidelines and daily goals	Today I will try to walk in quick pace for: 20, 30, 40, 50, 60, 70, 80, 90... minutes How certain you are? Uncertain: 1 2 3 4 5 6 7 8 9 10 :certain	(1)	(2)

<p>Process goals</p>	<p>While walking I am thinking... I focus on my breathing and say BE CALM or I FEEL GOOD or GOOD LET'S GO, or something similar to these. I focus on the steps and say BE CALM or I FEEL GOOD or GOOD LET'S GO, or something similar.</p>	<p>(1) (2)</p>
<p>Goals for decreasing cigarette rate</p>	<p>This week, the number of cigarettes I am going to smoke every day is:</p> <p>Less than 40, 35, 30, 25, 20, 15, 10, 5, None</p> <p>How certain you are? Uncertain: 1 2 3 4 5 6 7 8 9 10 : certain</p>	<p>(1) (2)</p>
<p>Process goals</p>	<p>Every time you want to smoke, try doing something of the following: Slowly drink a sip of water. Take a deep breath and think «calm». Occupy yourself with something else. Delay to light a cigarette for 10 minutes.</p>	<p>(1) (2)</p>

3. Goal setting for an exercise program for cardiac/ injury/ rehabilitation patients	1. Work in groups and prepare your own example	
4. How to use the goal setting principles for diet, or weight control program	2. Work in groups and prepare your own example	

	CATEGORIES GOALS	Just a desire	Realistic	Confidence building	Motivating	Stressful	Depends on opposition	Depends on self
1.	Destroy every opponent							
1.	Win the 'xxx' tournament							
1.	Improve 'xx' (30) positions up the ranks within the next year							
1.	Win the first game in every match							
1.	Five minutes before every match, coach tells athlete to win							
1.	Improve 2 nd serve							
1.	Follow diet precisely							
1.	Improve length on service return							
1.	Dedicate 30 minutes every day to mental practice							
1.	Five minutes before the game, coach reminds one or two key points							
1.	Improve 1 st serve percentage to 80%							
1.	Practice service return for an extra half hour in every afternoon session							
1.	Practice imagery on 1 st serve for half an hour every morning							

	Wrong			Correct	
I want you to	1	2	3	4	5
Return the ball close to the baseline					
Return the ball close to the baseline for the next 10 min.					
Return as many balls as you can close to the baseline					
Try to return 10 consecutive balls close to the baseline					
Return 5 more balls close to the baseline than you did before					
Set a personal goal as to how many balls you can return close to the baseline					

How to use the goal setting principles for diet, or weight control program

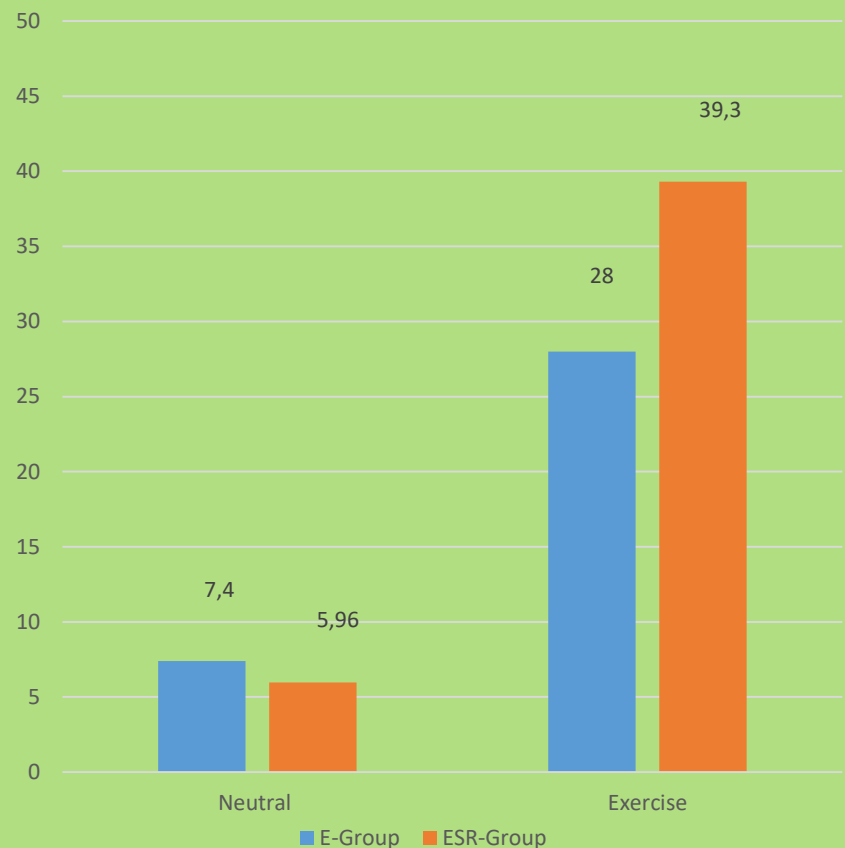
general and specific	To lose weight. (General and wrong goal). To lose 10 kilos in 10 months? (Correct and specific goal, but only long-term and wrong).
Specific goals	Lose 1 kilo per month / Quit eating sweets / Quit on eating at night / Follow an organised diet / Consume 1500 calories per day.
Realistic goals	Run 10 kilometres per day (non-realistic goal) / Walk 3 kilometres on Wednesday and Friday for my better physical condition.
Keep records	Recording of the progress – Record the calories I consume / Record the frequency and the duration of the daily/weekly exercise. / Complete the evaluation tab, so as to have a clear picture of my progress.

The effects of self-regulation smoking-delay strategies following moderate intensity exercise

Maria Angeli, Antonis Hatzigeorgiadis, Yannis Theodorakis, Nikos Comoutos

Abstract

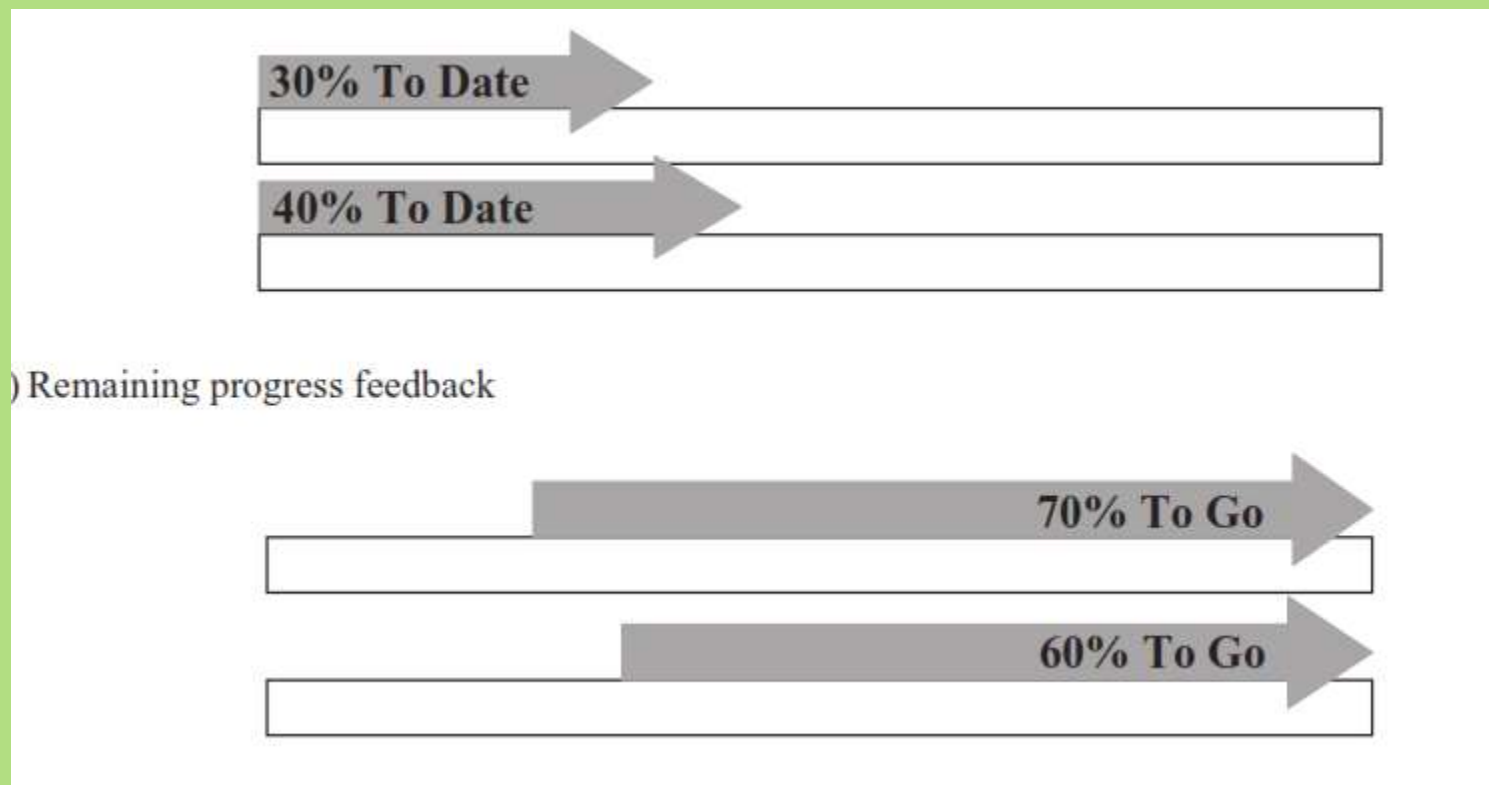
The purpose of the present study was to examine whether self-regulation strategies, can further extend the effect of moderate intensity exercise on smoking delay. Participants were 40 adult smokers who were randomly assigned into two groups: plain exercise (E-group, control) and exercise and self-regulation (ESR-group, experimental). A repeated measures design was adopted including a neutral condition (20 min video) and an exercise condition (20min moderate exercise). The results showed that smoking delay increased significantly for both groups; however, the increase for the ESR-group was significantly larger than that of the control group. The results supported the anti-smoking effects of acute exercise; furthermore, they highlight the usefulness of self-regulation strategies, and in particular goal setting, in extending smoking delay. The present findings provide important evidence for the exercise and smoking literature and useful directions for the development of smoking cessation interventions



Next promising studies in the area.

The authors propose that a focus on remaining (vs. completed) actions increases the motivation to move up to a more advanced level, whereas the focus on completed (vs. remaining) actions increases the satisfaction derived from the present level.

Koo, M., & Fishbach, A. (2010). Climbing the Goal Ladder. How Upcoming Actions Increase Level of Aspiration.. Journal of Personality and Social Psychology, 2010, Vol. 99, No. 1, 1–13. DOI: 10.1037/a0019443



An effective goal setting program for tennis players

ΤΕΣΤ	ΑΡΧΙΚΗ	ΣΤΟ-	ΣΤΡΑΤΗ-	ΔΕΣ-	Ημερο	Ημερο	Ημερο	Ημερο	Ημερο	Ημερο	Ημερο	Ημερο
	ΑΞΙΟ	ΧΟΣ			ΜΗ-	Μηνία	Μηνία	Μηνία	Μηνία	Μηνία	Μηνία	Μηνία
	ΛΟ-	ΜΗ-	ΓΙΚΗ	ΜΕΥ	06/ 01	13/01	/ /	/ /	/ /	/ /	/ /	/ /
	ΓΗΣΗ	ΝΑ		ΣΗ								
FOREHAND ΔΙΑΓΩΝΙΟ (ΣΤΑΘΕΡΟΤΗΤΑ) M.O. (3 Μπ. X 3 Σετ)	2,66	4,5	10 λεπτά, 2 φορές την εβδομάδα	4	2	3,11						
BACKHAND ΔΙΑΓΩΝΙΟ (ΣΤΑΘΕΡΟΤΗΤΑ) M.O. (3 Μπ. X 3 Σετ)	1,44	3,6	10 λεπτά, 2 φορές την εβδομάδα	4	1,88	3,88						
RETURN ΔΙΑΓΩΝΙΟ (ΑΠΟ ΔΕΞΙΑ) M.O. % (10 Μπ. X 4 Σετ)	55%	60%	10 λεπτά, 1 φορά την εβδομάδα	5	55%	60%						
FOREHAND (ΒΑΘΟΣ) M.O. % (10 Μπ. X 4 Σετ)	42,5%	55%	10 λεπτά, 1 φορά την εβδομάδα	4	50%	42,5%						
BACKHAND (ΒΑΘΟΣ) M.O. % (10 Μπ. X 4 Σετ)	45%	55%	10 λεπτά, 1 φορά την εβδομάδα	4	47,5%	47,5%						
SERVICE 2ο (ΣΤΑΘΕΡΟΤΗΤΑ) M.O. % (10 Μπ. X 4 Σετ)	64%	72%	10 λεπτά, 2 φορές την εβδομάδα	5	64%	75%						
SMASH (ΣΤΑΘΕΡΟΤΗΤΑ) M.O. % (5 Μπ. X 5 Σετ)	68%	76%	10 λεπτά, 1 φορά την εβδομάδα	4	72%	68%						

Topics for discussion

- ◆ Define the three different types of goals.
- ◆ Discuss the drawbacks of setting outcome goals.
- ◆ Summarize the mechanistic approach to why setting goals work.
- ◆ Explain why setting “do your best” type of goals is not as effective as setting objective goals.
- ◆ Discuss the relationship between team and individual goals.

Studies in the area

- ◆ Theodorakis, Y., Hatzigeorgiadis, A., Chroni, S., & Goudas, M. (2007). Goal setting in physical education. In J. Liukkonen, Vanden Auweele, Y., Vereijken, B., Alferman, D., & Theodorakis, Y. (Eds.) *Psychology for physical educators*. (pp. 21-34). Champaign, IL: Human Kinetics.
- ◆ Theodorakis, Y. (1995). Effects of self-efficacy, satisfaction and personal goals on swimming performance. *The Sport Psychologist*, 9, 245-253.
- ◆ Theodorakis, Y. (1996) The influence of goals, commitment and self-efficacy on motor performance. *Journal of Applied Sport Psychology*, 8, 171-182.
- ◆ Theodorakis, Y., Maliou, P. Papaioannou, A., Beneca, A., Filactakidou, A. (1996). The effect of personal goal, self-efficacy, and self-satisfaction on injury rehabilitation. *Journal of Sport Rehabilitation*, 5, 173-183.
- ◆ Theodorakis, Y., Laparidis, K. Kioumourtzoglou, E., & Goudas, M (1998). Combined effects of goal setting and performance feedback on performance and physiological response on maximum effort task. *Perceptual and Motor Skills*, 86, 1035-1041.

*Exercise **

How to use these information for your athletes as a sport psychologist

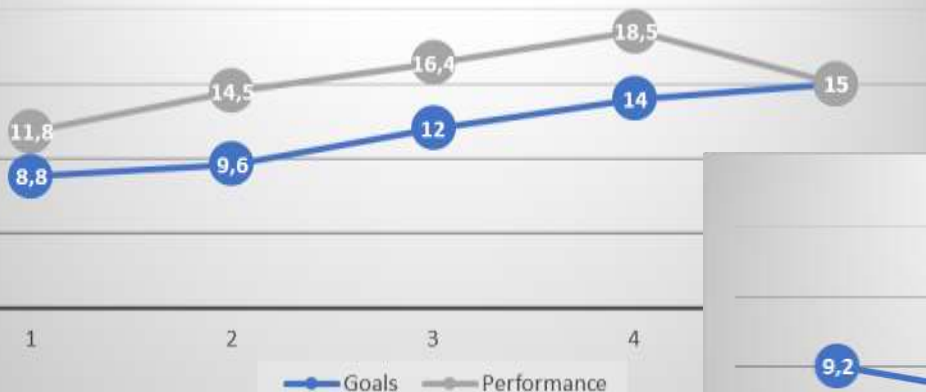


Ροή Αγώνα	Στατιστικά Αγώνα		
	2	Goals	0
	0	Ασίστ	0
	14	Τελικές Προσπάθειες	4
	8	Σουτ εντός μεγάλης περιοχής	1
	4	Σουτ εκτός μεγάλης περιοχής	2
	2	Κεφαλιές	1
	2	Αποκρούσεις	6
	5	Επεμβάσεις	21
	12	Κλεψίματα	22
	17	Φάουλ	17
	3	Οφσάιντ	4
	8	Κόρνερ	2
	51	Λάθη	58
	11/31	Επιθέματα	2/8

Goal setting against addiction, how to run 10 program for adults in therapy for substance use disorders, Panagiotounis, Theodorakis, Hassandra, 2020

The study describes the implementation and influence of a 5-week endurance training program (RACE), and to prepare participants to take part in a non-professional 10K race at the end of the program. The objectives of the intervention were: (a) to train individuals in treatment for SUD, to set goals and work to attain such goals within a physical exercise context (b) to enhance the participants to transfer such skills into SUD treatment, using the same techniques and processes and (c) boost participants' self-confidence so that they may indeed attain their goals. The results revealed a significant positive relationship between goal achievement and self-confidence improvement and treatment attendance. The follow-up assessment also revealed that the RACE program worked positively not only to strengthen the participants to develop goal-setting skills but also to transfer the goal-setting strategy in their therapeutic process, by setting their therapeutic goals. Results further supported the idea that sport can be a safe environment for training and transfer of behavioral change and motivational strategies in the treatment of SUD.

Total distance per Week



Self-confidence of achieving training goals



The journey of Spartathlon / Szilvia Lubics

<https://www.youtube.com/watch?v=dp7kAnsJt78>

- ◆ To think about the goal you came here for.. It sounds incredibly simple: just take one step after another and another.. But these steps really hurt after this much time... to focus on your goal even these circumstances.
- ◆ Which will be get you through, when your legs don't want to go anymore? There are simple sentences, I am strong, I fight, I am capable..
- ◆ Why I do this race again and again? It not because of some outer motivation, applause or success,
- ◆ but our inner motivation to be better more
- ◆ perfect in the things which is important for us..
- ◆ I wish you to find your own Spartathlon,
- ◆ a goal for witch you can work every day.

Γ.Θ. Εργαστήριο Ψυχολογίας της Άσκησης και ποιότητας ζωής

- ◆ 6 συμμετοχές 3 νίκες



About my goals in this seminar

- ◆ From hard theory to applied work
- ◆ To share my experience from my research and my counseling, and my personal use of the theory
- ◆ From simple experiments to applied examples
- ◆ **To feel confident** (especially EM students) to use the strategies both for your thesis, and your work with athletes
- ◆ The broad use of the theory in sport, exercise and health issues

My personal odyssey in goal setting theory

- ◆ As sport psychologist in sports: tennis, swimming, archery, basketball, running, track and fields, etc.
- ◆ As a researcher, the application the theory in physical education, in improving performance, in health psychology, e.g., quitting smoking, addiction, dementia, injury rehabilitation
- ◆ As head of the department and vice rector
- ◆ As recreational athlete in tennis, running, archery etc.

STRATEGIC PLAN ΣΤΡΑΤΗΓΙΚΟΙ ΣΤΟΧΟΙ	QUALITY GOALS ΣΤΟΧΟΙ ΠΟΙΟΤΗΤΑΣ	EVALUATION ΜΕΤΡΗΣΗ (δείκτης)	PERCENT τιμή δείκτη	GOAL ΤΙΜΗ ΣΤΟΧΟΥ	ACTIONS ΕΝΕΡΓΕΙΕΣ/ΔΡΑΣΕΙΣ (Τι πρέπει να κάνουμε για να πετύχουμε τα προσδοκώμενα αποτελέσματα;)	HOW IS Responsible ΥΠΕΥΘΥΝΟΤΗΤ ΕΣ (Ποιος αναλαμβάνει κάθε ενέργεια;)	Timetable ΧΡΟΝΟΔΙΑ ΓΡΑΜΜΑ (Πότε;)	
1.Βελτίωσης και αναβάθμιση της εκπαιδευτικής διαδικασίας	1.1.Βελτίωση της μαθησιακής διαδικασίας.	Δ.1.003 Ποσοστό ενεργών προπτυχιακών φοιτητών στο σύνολο των εγγεγραμμένων	83%	87%	1.1.1 α) Βελτιστοποίηση των προγραμμάτων σπουδών β) Ενημέρωση των φοιτητών γ) Έλεγχος των outline των μαθημάτων δ) Έλεγχος των learning outcomes ε) Ενημέρωση κατά το διήμερο υποδοχής φοιτητών (έντυπο χχ1)	ΑΚΑΔΗΜΑΙΚΕΣ ΜΟΝΑΔΕΣ, Γραφείο ERASMUS, Τμήμα φοιτητικής μέριμνας	31/12/ 2019	
		Δ.1.006- μέσο ετήσιο ποσοστό αποφοίτων ΠΠΣ στο σύνολο των ενεργών φοιτητών ΠΠΣ	16%	18%				
	1.2 Βελτίωση των επιδόσεων των φοιτητών για μείωση του χρόνου ολοκλήρωσης των σπουδών	Δ.1.4.36- Μέσο ετήσιο ποσοστό αποφοίτων κανονικής διάρκειας σπουδών (ν έτη)	28%	30%	1.2.1 α) Ενίσχυση της εκπαιδευτικής διαδικασίας με νέες μεθόδους και τεχνικές και αξιοποίησης της τεχνολογίας στα μαθήματα β)Επικαιροποίηση του εκπαιδευτικού υλικού του e-class (έντυπο χχχ) Γ) Προετοιμασία για σεμινάρια (έντυπα χχ3)			
		Δ.1.4.42- Μέσο ετήσιο ποσοστό αποφοίτων μη κανονικής διάρκειας σπουδών (πάνω από ν+2 έτη)	22%	18%				
	1.3 Ενίσχυση της ποιότητας των εργασιών των φοιτητών και	1.3 Ενίσχυση της ποιότητας των εργασιών των φοιτητών και	Δ.1.4.44- Μέσο ετήσιο ποσοστό αποφοίτων με βαθμό πτυχίου 8 και άνω	17%	20%			1.3.1 Καθιέρωση νέας διαδικασίας επιβράβευσης αριστούχων φοιτητών Ο καλύτερος/η εκφωνεί τον όρκο Τα ονόματα των αριστούχων δημοσιοποιούνται στις σχετικές ιστοσελίδες
			Δ.1.446-Μέσος ετήσιος βαθμός πτυχίου	5,78	7			