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## The Effect of Training in Two Motivational Environments on Performance and Learning Perceptual Motor Task

A.R.Movahedi<sup>1</sup> (Ph.D)  
*Univeristy of Esfahan*  
M.Shiekh (Ph.D) - F.Bagherzadeh (Ph.D)  
*Univeristy of Tehran*  
H.Ashayeri (Ph.D)  
*University of Medical of Science*  
R.Hemayattalab (Ph.D)  
*University of Tehran*

**Abstract :**  
The aim of this study was to determine the effect of exercise in two different motivational environments (low and high) on learning a perceptual motor task (basketball penalty shoot). Subjects were 37 healthy physical education male students (mean age 21.78 years) that were divided into two groups randomly. Group A (n=19) exercised in an environment with high arousal and motivational items while group B (n=18) exercised in an environment with low arousal and motivational items. They exercised for 6 weeks; 3 sessions per week with 15 trials in each session. Immediately at the end of the exercise course, acquisition test was carried out and after 10 days retention test was done. Fifteen trail basketball penalty shoots were used as the research tool. To

1 - Email : [armovahedi@Yahoo.com](mailto:armovahedi@Yahoo.com)

analyze data, repeated measure ANOVA, paired T test and independent T test were used. Results : no significant difference was found between the two groups in acquisition and learning the task. It was also shown that both groups improved their performance significantly.

**Key Words:**

Exercise, Motivation, Arousal, Perceptual Motor Task.

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- 1 - Individual
  - 2 - Task
  - 3 - Environment
  - 4 - Adaptation
  - 5 - Arousal
  - 6 - Task Importance
  - 7 - Goal Setting
  - 8 - Spectators
  - 9 - Reward
  - 10 - Sage

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- 1 - Aroused
  - 2 - Guide
  - 3 - Internal Motivation
  - 4 - External Motivation
  - 5 - Landers

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1 - Yerkes and Dadson  
 2 - Drive Theory  
 3 - Clark Hull  
 4 - Zones of optimal Functioning  
 5 - Hanin  
 6 - Catastrophe  
 7 - Fazy and Hardy  
 8 - Reversal  
 9 - Kerr  
 10 - Shepperd  
 11 - Collet

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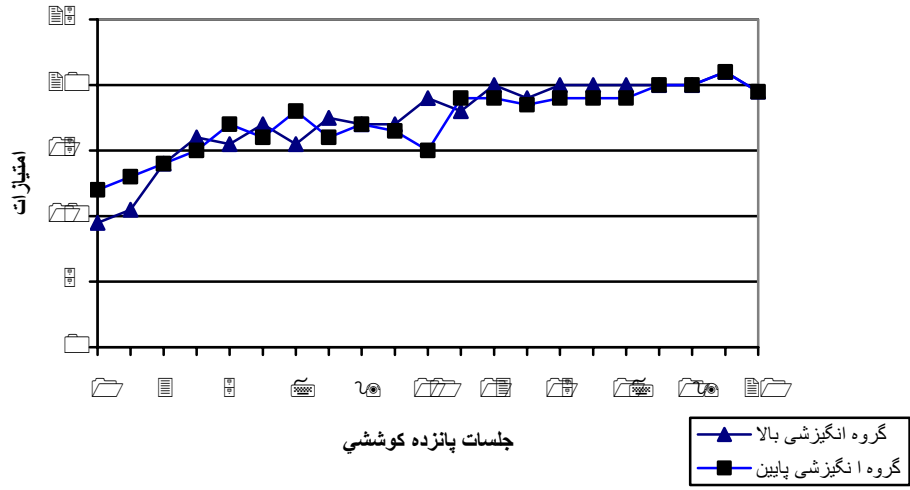
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- 1 - Test – Retest
  - 2 - Heart Rate Test
  - 3 - Sport Competition Anxiety Test

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- 1- Morris
  - 2- Collet
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  - 4- Vaccaro
  - 5- Martin

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1- Weinberg and Ragan  
 2- Yamazaki  
 3- Noteboom  
 4- Gold and Udry

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1- Meyers  
2- Demoja

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- Arent SM, Landers DM (2003). "Arousal, anxiety, and performance: a reexamination of the inverted - U hypothesis". *Res Q exerc sport*, 74(4):PP: 436-44.
10. Beling J (2000). "The validity and reliability of a portable heart rate monitor and carotid pulse palpation among healthy adults". Department of physical therapy. California state university, Northridge USA.
11. Buckelew SP, Hannay HJ,(1986). "Relationships among anxiety, defensiveness, sex, task difficulty, and performance on various neuropsychological tasks". *Percept mot skills*, 63 (2 pt 2): PP:711-8.
12. Collet C, roure R, rada H, Dittmar A, Vernet - maury E, (1996). "Relationships between performance and skin resistance evolution involving various motor skills.*Physiology behavior*", 59 (4-5):PP: 953-63.
13. Demoja CA, reitano M, Caracciolo E, (1985). "General arousal and performance". *Percept Mot skill*, 3 pt 1: PP:747-53.
14. Gallahue, david L. Ozmun, John C, (2001). "Understanding motor development *Infants, Children, Adolescents, Adults*". 5th edition. McGraw - Hill.
15. George harvey sage, (1984). "Motor learning and control: a neuropsychological approach". William C Brown Pub.
16. Gould D, Udry E, (1994). "Psychological skills for enhancing performance: arousal regulation strategies". *Med Sci Sports Exerc*, 26(4): PP:478-85.
17. Hardy L, Parfitt G, (1991). "A catastrophe model of anxiety and performance". *Br J Psychol*, 82 (pt 2): PP:163-78.
18. Martin JJ, Carib M, Mitchell V, (1995). "The relationships of anxiety and self - attention to running economy in competitive male distance runners". *J sports sci*, 13 (5): PP:371-6.
19. Meyers AW, Whelan JP, Murphy SM. (1996). "Cognitive behavioral strategies in athletic performance enhancement". *Prog Behav, Modif*. 30: PP:137-64.

20. Morris T, Carlson JS, Selig SE, McKay JM, (1997). "Psychophysiological stress in elite golfers during practice and competition". *Aust J Sci Med Sport*. Jun; 29(2): PP:55-61.
21. Noteboom JT, Enoka RM, Fleshner M, (2001). "Activation of the arousal response can impair performance on a simple motor task". *J appl physiol*, 91 (2): PP:821-31.
22. Raglin IS , (1992). "Anxiety and sport performance". *Exerc sport Sci Rev*; 20: PP:243-74.
23. Richard A. Schmidt, Timothy D. Lee, (2005). "Motor control and learning". *Human performance research and university of California, Los angeles. McMaster university. fourth edition.*
24. Shepperd JA, Grace J, Cole LJ, Klein C, (2005). "Anxiety and outcome predictions". *Pers Soc Psychol Bull*, 31 (2): PP:267-75.
25. Suay F, Salvador A, Gonzalez - Bono E, Sanchis C, Martinez M, Martinez - Sanchis S, Simon VM, Montoro JB, (1999). "Effects of competition and its outcome on serum testosterone, cortisol and prolactin, *Psychoneuroendocrinology*", 24 (5): PP:551-66.
26. Vaccaro P, Steel DH, Griffiths TJ, (1979). "Relationship between anxiety and performance in scuba diving". *Percept Mot Skills*, 48 (3 pt 1): PP:1009-10.
27. Weinberg RS, Ragan J, (1978). "Motor performance under 3 levels of trait anxiety and stress". *J Mot Behav*, 10 (3): "169-76.
28. Yamazaki F, Takai K, Hirata CYoshida H, Kerr JH, (1997). "Effects on archery. performance of manipulating metamotivational state and felt arousal". *Percept Mot skills*. Jun; 84 (3 pt 1): PP:819-28.
29. Yerkes, R.M. and dodson, J.D. (1908). "The relation of strength of stimulus to rapidity of habit – formation". *Journal of comparative neurology and psychology*, 18, PP: 459-482.