

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

رشد و یادگیری حرکتی _ ورزشی «حرکت»

نشریه دانشکده تربیت بدنی و علوم ورزشی دانشگاه تهران

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از نویسندگان محترم که مقالات خود را برای بررسی و چاپ در نشریه ارسال می دارند تقاضا دارد نکات زیر را دقیقاً رعایت فرمایند.

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۳. کلید واژه های فارسی و لاتین حداقل ۵ کلمه و حداکثر ۸ کلمه باشد.

۴. اشکال و نمودارهای مربوط به مقاله حتماً اصل بوده و دارای کیفیت مطلوب باشد.

۵. معادل های لاتین نام های خاص و اصطلاحاتی که در متن مقاله به کار رفته و نویسنده انعکاس آنها را ضروری تشخیص داده در پانویس منظور شود.

۶. ترتیب قسمتها : عنوان، چکیده فارسی، کلید واژه های فارسی، مقدمه، روش تحقیق، یافته های تحقیق، بحث و نتیجه گیری، مراجع، چکیده لاتین، کلید واژه های لاتین.

۷. فهرست منابع مورد استفاده باید شامل اطلاعات کتاب شناسی هر مأخذ به صورت کامل باشد و به صورت الفبایی تاپ شود و با ذکر شماره در داخل متن ارجاع گردد. برای مثال ۳ نمونه از مراجع لاتین را به ترتیب برای مقاله، کتاب و مجموعه مقالات کنفرانس ارائه می نمایم که مراجع فارسی هم باید همانند آنها تنظیم شود.

1. Murtha_Smith, E., Hwang, S.H. and Bean, J. (1992). "Load transfer in a space frame connection". *ASCE, J. of Structural Eng.*, Vol. 7, No. 3, PP: 191-200.

2. Holstein, Barbara. (1988). *Shaping up for a health pregnancy*. 5th Ed. Life Enhancement publication, Illinois, USA.

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۸. مقالات ارسال شده نباید قبلاً در هیچ نشریه داخلی یا خارجی چاپ شده باشد. هیأت تحریریه انتظار دارد که نویسندگان محترم تا هنگامی که جواب پذیرش یا عدم پذیرش از نشریه حرکت نرسیده است مقاله خود را به نشریه دیگری جهت چاپ ارسال نفرمایند.

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رشد و یادگیری حرکتی _ ورزشی، دوره ۶، شماره ۳، پاییز ۱۳۹۳

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The Comparison of Self-Control and Experimental-Control Feedback Frequencies on Learning a Throwing Task in Children with Cerebral Palsy

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Abstract

Cerebral palsy is a term commonly used for conditions characterized by motor dysfunction due to non-progressive brain damage in early life. The aim of this study was to compare the effects of self-control and experimental-control feedback frequencies on the acquisition, retention and transfer of a throwing task in children with spastic cerebral palsy. From 1750 students with cerebral palsy in Tehran special schools, 30 children (7-12 years old) with spastic hemiplegic cerebral palsy (SHCP) were selected by a convenience sampling method. A pretest consisting of 10 trials was performed to homogenize the participants. Participants were randomly divided into three self-control groups (with 25%, 50% and 75% feedback frequencies) and three experimental-control groups (with 25%, 50% and 75% feedback frequencies) in acquisition, retention, and transfer phases. In the acquisition phase, subjects completed 10 blocks of 8 trials (total of 80 trials). Retention and transfer phases were conducted 24 hours after the acquisition phase. These phases consisted of 10 trials without feedback, except that the subjects performed the transfer phase from 4m distance (vs. 3m distance in acquisition and retention phases). One-way ANOVA test showed no significant difference between the groups receiving the same frequencies (self-control and experimental-control groups) in the acquisition phase while self-control group outperformed in retention and transfer phases. Furthermore, participants who received higher feedback frequencies (self-control or experimental-control group) outperformed those in lower feedback frequencies in all acquisition, retention, and transfer phases. Thus, while the advantages of self-control feedback against experimental-control feedback were observed in the same feedback frequencies, it seems that children use feedbacks in a manner different from adults during motor learning. Thus children may require higher feedback frequencies than adults in order to optimize their motor learning.

Keywords:

Cerebral palsy, experimental-control feedback, feedback frequency, self-control feedback, throwing task.

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The Comparison of the Effect of Various Levels of Contextual Interference (Blocked, Random and Increasing) on Acquisition, Retention and Transfer of Movement Time Error and Cursor Error in Complex Motor – Perceptual Task

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Abstract

This research was performed to compare the effect of various levels of contextual interference (blocked, random and increasing practice schedules) on acquisition, retention and transfer of movement time error and cursor error in a complex motor – perceptual task. For this purpose, 30 female students (age range of 11 – 13 years) participated in a pretest (3 parts of 12 trials) and based on their pretest scores, they were divided into 3 homogeneous groups: blocked, random and increasing. The participants performed the guidance and click by mouse tasks in accordance with their groups. 4 days after the pretest, the participants performed 288 trials (12 trials in 18 parts) in the acquisition phase and after 24 hours, they participated in retention and transfer phases (12 trials in 3 parts). Movement time error (MTE) and cursor error (CU) were analyzed separately for acquisition, retention and transfer phases by analysis of variance 3×4 and Tukey post hoc test. The result showed a significant difference ($P=0.00$) in the movement time error between the acquisition phases with confidence level of 99%, but there was no significant difference ($P=0.29$) in the cursor error. Also, there was no significant difference among the three groups in the acquisition, retention and transfer.

Keywords:

Complex task, contextual interference, cursor error, motor-perceptual task, movement time error.

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The Comparison of Brain Quadrant Dominance (Style of Thinking) between Athletic and Non-Athletic Students

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Abstract

The aim of this research was to compare brain quadrant dominance between athletic and non-athletic students. For this purpose, 199 university students participating in Sport Olympiad Summer 1391 were selected as the athletic sample and 162 students as the non-athletic samples using simple random sampling method. The Hermann Brain Dominance Instrument (HBDI) was used for data collection. The results indicated a significant difference in A brain quadrant between the athletes and non-athletes and also in the B brain quadrant between athletes and non-athletes ($P < 0.05$). The priorities of brain quadrants in both athletes and non-athletes were C, D, A, B respectively. The results showed that although the right section of the brain had more share in problem solving, the left side of the brain had this ability as well and the share of this side was significantly higher in athletic group than the non-athletes.

Keywords:

Athlete, brain dominance, brain quadrants, non-athlete, style of thinking.

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The Effect of Immobilization Stress on Learning and Spatial Memory and the Protective Role of Physical Activity in Male Rats

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Abstract

Increased level of stress has negative effects on cognitive functions. Thus, it is necessary to identify appropriate strategies to prevent cognitive and motor performance decline. The aim of this research was to study the effect of immobilization stress on learning and memory and the protective role of physical activity in them. From male Albino-Wistar rats of Pasteur Institute, 32 rats were randomly divided into four groups. According to the type of the groups, rats were exposed to stress interventions including immobilization (two hours per day for 21 days), moderate running (30 minutes per day for 21 days), combination of stress interventions and running and also without any interventions. In order to determine the effectiveness of stress, animal weights were measured in two phases: before the protocol and after the tests. Morris Water Maze in several steps (four days for the acquisition phase, the fifth day for Probe test, three days for resting and the ninth day for recall test) was used for learning and testing of rats. ANOVA test with repeated measures and paired sample t test in acquisition phase and Tukey post hoc test were used to analyze data. The results revealed that stress damaged learning and memory ($P=0.03$). However, physical activity neutralized performance damage caused by stress ($P=0.000$). Physical activity group showed a significant positive effect on the time to reach the platform in the acquisition phase ($P=0.005$) and on cognitive function in recall phase ($P=0.006$) which was a sign of positive effect of physical activity on learning and memory. Therefore according to the present results which show that stress impairs learning and memory, it is expected that physical activity will be used as an effective factor to moderate stress.

Keywords:

Learning, physical activity, rat, spatial memory, stress.

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The Effect of Pilates Training on Improving the Cognitive Performance of Sedentary Elderly Men in Kermanshah City

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Abstract

Cognitive performance such as prediction and reaction time changes along with aging. It seems that regular lifetime physical activity depends on the delay of these factors. This study aimed at investigating the effect of Pilates training on the improvement of motor performance of sedentary elderly men in Kermanshah city. 40 sedentary elderly men (mean age 72.15 ± 6.54 years) were selected from the senior citizen centers in Kermanshah and were divided into two groups of experimental and control randomly. The experimental group performed Pilates protocol for 8 weeks. Both groups participated in the pretest and posttest of cognitive performance. The data obtained from the pretest and posttest were analyzed by paired samples t test and independent t test was used to compare the posttests of both groups. The results showed that Pilates group outperformed the control group significantly in their cognitive status and reaction time in the posttest ($P < 0.05$), but there was no significant difference in prediction between these two groups. The patterns of these results suggested that Pilates exercises could improve the elderly's cognitive performance.

Keywords:

Cognitive status, elderly, pilates training, prediction, reaction time.

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Handling Individual Abilities in Religious System (Case Study: Physical Education in Islam)

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Abstract

This study aimed to consider the dimensions and parameters of handling individual abilities in religious system and contemporary theories based on Quran and Hadith related to body training and physical skills in Islam. As there are a large amount of evidence related to the fit body and relaxed mind, many case studies can be observed accordingly. Besides a brief review of the history of Islam, comparative approaches and studies as well as the viewpoints of Islam and other contemporary religious scholars were examined in this study. Among the issues discussed in this study, some items gained more attention: mental and physical health, dimensions of handling individual and practical abilities such as resistance, high morality, agility (activity and skill), stress fighting, prospect, analyzing the situation, and identifying the competitors. In addition, to explain the evidence of religious system, historical and real facts in Quran and Hadith were presented.

Keywords:

Competitor Identification, High Morality, Individual Abilities, Physical Education in Islam, Religious System.

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A Change in Imagery Speed of an Automated Motor Sequence and Its Effect on Sport Performance

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Abstract

A motor task performance and imagery show several parallel characteristics. In this study, the effect of a voluntary speed change in mental images of a complex difficult sequence of karate techniques on subsequent motor performance was assessed. 24 male karate volunteers (mean age: 24.58±5.27 years) who were well skilled at performing the sequence movements participated in the pretest. During the training period, they imagined the motor task with normal, faster, or slower speeds in the real time, fast and slow groups respectively. The post-test was identical to the pretest. The data were analyzed by one-way variance analysis and *t* tests. The results showed no time difference between motor imagery duration and physical performance in real time group ($P>0.05$) while imagery speed decrease in slow group was not significant when compared with their own physical performance in the pretest ($P>0.05$). Fast group accelerated their mental imagery in the training period ($P<0.05$). The comparison between pretest and post-test by paired *t* test revealed that karate athletes improved the time of their performance after the real time and fast imagery ($P<0.05$). However, slow imagery had no effect on post-test performance ($P>0.05$). Also, independent *t* test results showed no significant difference between the effect of real time and the fast imagery ($P>0.05$). It seems that mental imagery in real speed of action and fast imagery had the advantage to improve the performance duration compared with the slower imagery. In conclusion, mental image speed is an important factor in motor imagery and it is suggested that it should be controlled by the athletes.

Keywords:

Automated movements, elite athletes, mental chronometry, motor imagery, physical performance.

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The Effect of Body Mass Index on Fundamental Motor Skills in Six-Year-Old Children of Isfahan City

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Abstract

The present study was designed to determine the effect of different levels of body mass index (BMI) on fundamental motor skills in 6-year-old children of Isfahan city. For this purpose, fundamental motor skills of 19 underweight children (grade 3 thinness) and 19 children with normal weight and 19 overweight children who were matched according to their gender and socioeconomic background were assessed using the Movement Assessment Battery for Children (M-ABC). Among 8 items of M-ABC, normal weight and overweight children differed on only one-leg balance with preferred leg and normal weight and underweight children differed on only walking heels raised item. However, the total motor impairment score which was calculated by the summation of the 8 item scores was higher in underweight and overweight children than their normal weight peers.

Keywords:

Fundamental skills, motor development, movement coordination, six-year-old, weight.

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