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Comparison Effect of Different Levels Intensity Practice 50, 70 and 90% Heart Rate Reserve on the Run Task Scheduling Adaptive Prediction

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ABSTRACT

The present study was designed to investigate comparison Effect of Different levels Intensity Practice 50, 70 and 90% Heart rate reserve on the run Task scheduling adaptive prediction for this purpose, 25 subjects between 19-26 year's old non-athlete students at Shiraz University voluntarily participated in the study. Each subject at 50%, 70% and 90% heart rate reserve were severely Task scheduling and forecasting using adaptive scheduling with adaptive prediction system was implemented timer Basin. The results of the absolute error (AE), which represents the accuracy of the subjects, were analyzed. Data analysis was performed using one-way analysis of variance. Results showed that the intensity of exercise at 70% and 90% of speed and accuracy Task scheduling adaptive forecasting a significant impact on people; The intensity does not show the 50% level (significance level of α=0/05). The findings of this study indicate that 70% intensity level may the starting point for the implementation of task scheduling problem is an adaptive prediction.

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INTRODUCTION

In recent decades, the effects of exercise on cognitive functions have been established. Evidence to suggest that the intensity of exercise may affect cognitive function and lead to positive change it [1]. The meta-analysis of studies show that exercises intensity significantly on cognitive functions across the lifespan is affected. It is said the impact was positive, yet low [4]. However, the concept of cognitive functions have been studied, but the effect of exercise on the timing predicted less adaptive Investigated because the relationship between exercise intensity and cognitive function - motor complex [4], and several issues when considering the effects of exercise intensity during adaptive prediction scheme should be considered. With careful consideration, it has been observed that most of the literature on the effects of exercise intensity on homework scope of information processing, such as assignments simple and choice reaction time, visual search, and centralized scheduling is an adaptive prediction. [4], the beneficial effects of intense exercise on executive function compared with information processing, attention, and memory have been reported, indicating that certain types of executive control processes may be more sensitive to the intensity of the workout. Among other factors that are associated with the severity of the effects of exercise on cognitive functioning is necessary to identify, in results [4] and [16] is. Chang and colleagues suggested that the high intensity exercise can cause changes in cognitive functions, whereas there was no change in levels of moderate and low. It was while, Smith and colleagues at the University of Minnesota and Mississippi between different levels of exercise intensity, differences in Absolute Error, Constant Error and Variable Error subjects observed. Although 90% Heart Rate intensity compared with the control group, a significant difference in the absolute error, constant error and variable error is shown. The results of this study may be related to the literature in the area of cognitive information processing and task scheduling adaptive prediction and improved. Review of previous research and the results suggest that the factors associated with exercise may exert different effects on the adaptive prediction of timing. Such factors include the intensity is still vague and its effects have been studied to predict. These effects can be combined with the effects of mental activity and produce different results. The intent of this research is that the effect of

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exercise intensity on the timing of the anticipated adaptation is examined. Athletes to experience the effects of exercise on cognitive features have touched many factors, but the intensity of the effect on cognitive aspects, namely Researchers have shown, Forecasting, particularly the timing of the predicted superposition influenced by personal characteristics and environmental factors, including the severity and type of stimulus, the level of arousal, physical activity, gender, age and other factors are international outbreaks [13]. [17], adaptation to one's ability to predict the timing of the anticipated arrival of a stimulus to a point defined and elicit the response time of arrival, the compliment. In fact, he was very precise and consistent timing of adaptive prediction depends on the ability to predict the performance characteristics of the motion and the response time is [2]. Severity, quality of practice is at a given time. As the amount of work performed per unit time will be more athletic, exercise intensity increases [2]. Mc Ardel intensity exercise also acted as a percentage of maximum heart rate and work load is considered [2].

Intensity: By quickly cycling the resistance applied to the subjects. The severity of this section is to raise the heart rate and resting heart rate with respect to the maximum that can be achieved on a bicycle ergometer. One of the first people to predict their perceptual research, [12], respectively. Tennis Beginners and experienced of their ability to service the anticipated landing site were examined. They were used to study the pattern; the pattern is what we call temporal occlusion paradigm. This model has been used by many researchers. [6] to test predictions on Hockey Goalkeepers are getting carried out the penalty. Goalkeepers move the ball (predicted) and were compared to the actual motion of the ball. Holder and his colleagues concluded that significant differences exist between the results of experiments, Jones and Miles. [10] Video footage from the poignancy of quick blows watched baseball. They found that when the ball is in between 1/7 and 2/7 inches from the treatment of the wood looks to be picky with his eyes following the ball stops. This is because at this time due to limitations on reaction time, every application every move or change is impossible. A study by [3] was a table tennis players were studied. They showed that the players cannot even move the ball late in the settings of their twist rockets do.

Methodology:

The study sample consists of boys who were students at Shiraz University of Physical Education in the second semester of the academic year 1393-1392 a certificate had been.

Participants and sampling:

After visiting all of the boys in a semester of physical education classes taught by a total of 25 thousand of them, has managed to satisfy the Subjects agreed to participate in various phases of this research. The questionnaires were filled out by the participants to ensure that any personal information they did not have a motor disorder. Participants then a consent form, health history, and physical activity readiness questionnaire (PAR-Q) (American College of Sports Medicine, 2010) to ensure the safety of participants and the ability to perform aerobic exercise is filled. Due to the effect of handedness in research [14], [15], as is, all subjects were right-handed. Participants without neurological diseases, cardio - vascular and had physical disabilities. Measure visual acuity using the Snellen chart was used screening test to all participants have the same visual acuity.

Variables:

Independent variable:

Different levels of intensity are the independent variables in this study.

Dependent variable:

The overall error rate (AE) due to the anticipated timing of adaptive test, the dependent variable is considered. Control variables that researchers have been trying to keep them the same for all participants, their possible effects on the dependent variable to be controlled include: Sex, age, medical history, visual disturbances, smoking, drug use, caffeine intake, and level of experience, skill level, and fitness level and skill type. With varying levels of skill, none of the subjects with respect to the Personal Information Form, Practice with a timer device Basin have not already. In relation to the level of fitness is all on one level and none of them were athletes.

Research Tools:

Prediction timer device Basin:

To measure the subjects' performance on the task scheduling adaptive prediction of a similar device was used to measure the Basin anticipation timer. Anticipated timing adjustment device, a device that measures a person's ability to predict.

Bicycle ergometer

When operating a bicycle ergometer Germany, usually through a belt frictional resistance is applied on the front wheel of the bicycle. The friction device or friction resistance, and measured regulation.

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Polar heart rate belt:

Each subjects a Polar heart rate belt manufacturing company that uses Polar Finland. For each subject, 50%, 70%, and 90% heart rate reserve that applies to this standard benchmark test according to the American College of Sports Medicine is specified.

Scales and Counters:

The height gauge "three K" digital scale with a sensitivity of 0/1 meters and three "K" to the nearest 1 g, both of which are made in Germany, was used to measure subjects' height and weight.

Consent

Demographic questionnaire

Physical Activity Readiness Questionnaire

Methods of data analysis

In this study, to analyze data and draw graphs of the software SPSS version 19 and Excel were used. First, descriptive statistics of mean, standard deviation, minimum and maximum scores was used to describe the variables. Then the analysis of survey questions, one-way analysis of variance with repeated measures was used. Level of significance in this study, α=0/05 considered.

Results:

Table 1: Descriptive information on participants' demographic variables such as age, weight and height.

Weight (kg)	Height (cm)	Age (years)	Subjects	Participants
The mean ± standard deviation	The mean ± standard deviation	The mean ± standard deviation	Number	
71/44 ± 10/75	175/87 ± 6/72	22/20±1/38	25	

Table 2: Results of one-way analysis of variance at 50%.

p	T	df	Level Intensity Practice
0/000	1/383	112	%50

Table 3: Results of one-way analysis of variance at 70%.

p	T	df	Intensity Practice Level
0/000	5/52	102/199	%70

Table 4: Results of one-way analysis of variance at 90%.

p	T	df	Level Intensity Practice
0/000	7/015	112	%90

Table 5: Determine the difference between the intensity.

Significant	T	df	Groups (level of intensity)
* 0/000	4/379	108	70 and 50
* 0/000	6/055	112	90 and 50
0/023	2/307	106	90 and 70

α= 0.017 significance level. *

Conclusions and Discussion:

First question:

Is performance prediction task scheduling adaptive (CAT) at an exercise intensity of 50%, 70% and 90% heart rate reserve (HRR) is the difference significant? To compare the effects of different levels of exercise intensity on the adaptive prediction of the timing of the test subjects were repeatedly measured. Results show that CAT is the difference between the intensity of the workout. Post hoc tests revealed that greater than 70% strongly, 90% and 70% to 50% higher. With increasing exercise intensity, timing, anticipated adaptive impaired. According to preliminary results, the researchers obtained a default with respect to the research, the results of this research [4,5], and [8] were consistent and the results [14], Wood and Thomas, Velaho and is non-aligned. Misalignment reasons can be different ways of getting people to different levels of intensity and gender differences noted.

Second question:

Is the training intensity of 50% heart rate reserve (HRR) is the effect on CAT Men?

In answer to the second question, the results of repeated measures showed that there was no significant difference between the rests of the 50%. The activities of low intensity can affect the timing of anticipated adaptive research subjects. In this regard, the results of research [4,14,5] and [19] is aligned and non-aligned cases were found. This indicates that low-intensity exercise leads to impaired function of the timing of adaptive prediction.

Third question:

Is the training intensity of 70% heart rate reserve (HRR) is the effect on CAT Men?

In response to the third research question, Bonferroni correction showed that the resting state of Oxygen Consumption and the 70% difference is significant.

Between the control condition and 70% of oxygen consumed when a person works CAT significantly predict adaptive scheduling changes and grows. It seems that there are between levels 50 and 70 points it can be seen that the critical point for the CAT process. The unit can be results and [8] is consistent And the results [14,3] is inconsistent, the discrepancy may be due to different ways of getting people to different levels intensity and gender differences noted.

Fourth question:

Is the training intensity of 90% heart rate reserve (HRR) is the effect on CAT Men?

In answer to the fourth question of this research is to investigate the effect of exercise intensity by 90% over the timing of men's adaptive prediction, Bonferroni correction showed a significant difference between rest and 90% oxygen is consumed.

The results correspond with research assumptions. Compared with 90 and 70 turns out to be more change is increasing the intensity.

The general conclusions:

The results showed that adaptive changes, predicted timing (CAT) can be changed according to changes in exercise intensity levels. As was seen between 50% and 70% heart rate reserve, anticipated timing of adaptive (CAT) the lack of variability to the variability goes. So we can expect that there is a critical point when the intensity to the point, the processing system can correctly perform the analysis and in accordance with the anticipated timing of adaptive impaired. From the perspective of control, this can be due to physiological changes in the central nervous system in response to the need for highly trained, possible changes in brain hormones, changes in cerebral blood flow and cerebral EEG changes at different levels of intensity of the workout.

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