Effect of Contextual Interference on Gross Motor Skill Acquisition in Reflective and Impulsive Students

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Purpose : To investigate effect of blocked and random practices on a movable balance skill acquisition and learning transfer in reflective and impulsive students.

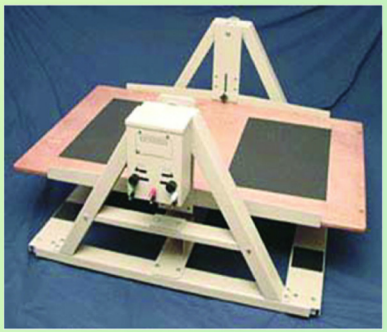
Subjects : A randomized sample of **40** students (**20** reflective and **20** impulsive) were selected (age **10.7** + **0.52** years) and divided into four groups (**10** of each).

Gross Motor Skill : A balance skill on a movable Stabilometer was taught for two groups using the blocked practice in which all trials were given in a series constant order, while the other two groups was taught the skill using the random practice in which all the trials were given in a non series and different order.

Procedures : In the acquisition stage, each student was given **30** seconds **12** training trials with **45** seconds interval rest (on four angels: **9°**, **12°**, **15°**). In learning transfer stage each students in all groups was given three trials on new angle (**5°**).

Comparison between Reflective and Impulsive Students in Balance Skill Acquisition (Errors No.)

Training	Stages	Reflective		Impulsive		Comparison
		M	S	M	S	
Blocked	Acquisition	10.83	5.75	12.39	6.21	t (10) = .58, ρ =.57
	Transfer	19.07	6.31	21.70	7.86	t (10) = .83, ρ =.42
Random	Acquisition	14.72	3.74	11.07	3.57	t (10) = 2.23, ρ = .04*
	Transfer	23.33	4.39	22.47	7.98	t (10) = .30, ρ = .77



Stabilometer

Number of Errors of Reflective and Impulsive Students in Balance Skill Acquisition

Data Analysis: A two way Analysis of Variance (2X2 ANOVA) was used to test the difference between the blocked and random practices for both reflective and impulsive persons. The analysis revealed no significance differences in the interaction among the students groups and the practice methods, therefore the differences of the groups and practices were analyzed independently using t-test .

Results: The results showed that the random practice was more effective in learning the movable balance skill in acquisition stage in reflective students. While In the learning transfer stage there were no significant differences between the two practices in the reflective students. Also there were no significant differences between both practices in neither acquisition stage nor learning transfer stage in learning the movable balance skill in impulsive students.

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