



Evaluation of toe dynamic pass performance in volleyball and swimming test & effect of educational and motivational self-talk in male students

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Abstract

Background and Study Aim: The use of known methods to improve performance has been common among athletes for many years. The practical effects of the self-talk technique are related to the clear and precise signs associated with the task. The aim of this research is to study the Studying Evaluation of toe dynamic Pass performance in volleyball and swimming test & effect of educational and motivational self-talk in male students.

Material and Methods: In this research 54 physical education students were selected in the age domain of 19 to 24 years old that selected volleyball for physical education. Subjects were divided to 3 groups (educational self-speech, motivational self-speech, without self-speech). Of course, not all these students were having volleyball records and they were a bit familiar with volleyball. After 10 minutes of general body warming, first one pre-exam without self-speech interposition and then one post-test with the interposition of self-speech, were performed. Data were analyzed with the scale of ANOVA; 3(group) × 2(operation) × 2(time). then for each exam used the ANOVA scale; 3(group) × 2(time) were used two times, for significant differences μ_2 and Kohen's d & data analysis used SPSS₂₂ software.

Results: The result showed that educational and motivational self-speech both have the same effect on volleyball test, but in swimming test, motivational self-speech is more effective than educational self-speech.

Conclusions: In general, self-speech is a useful technique for enhancing the dynamic operation in the physical education. Therefore, in complex tasks, the use of educational self-talk is preferred, but in simple tasks, there is no priority in using different types of self-talk, but it is preferable to use motivational self-talk.

Keywords: self-speech, educational, motivation, performance

Introduction

The element of practicing is essential in order to balance and increase the level of performing the athletic skills. And in this context, traditionally, it is thought that physical education is the only factor of physical performance. But now it seems that psychological factors like self-speech could be in this domain [1, 2]. According to the researches, using psychological techniques is effective in upgrading the operation in the physical education and sport [3, 4]. In addition to this, using intellectual skills (like imagination, determining the purpose & relaxing) are means for upgrading the operation in the physical education [5]. Self-speech points to the techniques those athletes who need to think straight and related to sports, use reflexive and intentional automatic statements (pause-thought) and it is effective on increasing the focus on motivation related to operation. Self-speech has a positive effect on dribbling skills and passing in the young basketball players [6, 7]. Throwing in elite female soccer players [8], physical education students' basketball throwing skill [9], tennis players' striking [10], and usefulness for injury rehabilitation [11]. There are two kinds of educational and motivational self-speech [12]. Educational self-speech refers to sentences designed to upgrade operation by focusing on the technical aspects of skill and motivational self-speech points

to technical sentences made to create a sense of self-confidence, increasing effort and burning energy and creating positive mood [3]. Educational self-speech has a positive effect on young golf players' operation [13], tennis players' skills [14], basketball players' skills [6], and skaters' skills [15], motivational self-speech has positive effect on dynamic operation in dart-throw [1], and tennis [16], is also effective on football players [17], and is also effective on girl student Volleyball Pass [7]. Educational self-speech is more beneficial on skills which need scheduling or accuracy & motivational self-speech is more beneficial on skills which need power or stamina [18]. Landin suggested that key words should be brief and simple in terms of phonetic and also logically should be linked with skill elements and coordinator with timing of operation [19]. The results of research by Vakili *et al.* [20] showed that educational and motivational self-speech have the same effects on basketball chest passing test. But in pull-up test motivational self-speech is more effective than educational one and in general, self-speech is useful technique for enhancing dynamic operation in physical education. Selection and using appropriate key words is very important [20]. Also, Aghdasi *et al.* found that educational self-speech cause accelerated acquisition, retention and transfer throwing darts. But its performance is better on teens [21]. McCormick *et*

al found that endurance athletes to use self-talk to cope with exertion, as well as other stressors [22]. Park *et al* stated, athletes using self-talk experienced more fun and interest, and they perceived higher effort value and competence [23].

So, educational self-speech could be emphasized by coaches as a cognitive solution besides the physical exercise.

Because researches were performed on athletes and professionals till now, I decided to work on people with no sport history. Purpose, is to check the effects of educational and motivational self-speech on volleyball toe skill and swimming operation in boy students. We assumed that students who used self-speech, despite its kind, their performance would be more enhanced than the students of control group in both skills. (Hypothesis 1), While educational self-speech has more positive effect on volleyball toe skill (Hypothesis 2) and motivational self-speech has more effects on swim test (Hypothesis 3).

Material and Methods

Participants

This research is from a semi-empirical way (including two experimental groups and one control group). athletes' self-talk can be measured reliably through different methods [24]. The plan of this research is to have pre-test and post-test with control group. The society of this research, male students of Mazandaran University of Science and Technology with the age domain of 19 to 24 years old so that none of them were a member of national team or collegiate team. They also elected volleyball as a lesson of professional physical education. 54 persons were selected as a sample forms this society and were randomly divided to 3 groups. Of course, all of the people were trained swimming as volleyball toe skill, because swimming was one of the test materials.

Research Design

The subjects were randomly divided to 3 groups: 1-With educational self-speech 2-With motivational self-speech 3-Without self-speech. Subjects were heated 10 minutes and were trained volleyball toe 15 minutes. Then the exam was taken from them. Then they walked 3 minutes and then they were examined. Then they walked for 3 minutes and volleyball toe with self-speech sentences were trained to them. First group that have educational self-speech did the skill with key words: "fingers-goal" and for modified swimming test, key words: "bend-traction" were used. The students in group 2 were trained with motivational self-speech. For volleyball toe test key word "I can" and for modified swimming test key word "with all power" was selected. It was announced to students in control group to do their best. In volleyball toe exercise, subject was in the distance of 2 meters of the wall and tried to throw the ball to the circle drawn on the wall with the 50 cm diagonal, in 30 seconds. Subject's point, was the number of correct passes. This test measures the accuracy, more. For measuring the stamina and endurance, we used swim test. Student puts his knees on the ground and his feet upward. And with raised and diagonal ankle and parallel with their shoulder hands and a little wider than shoulder width and they approximate their body to the ground, gradually. The elbow is bent and the back is flat. Again, returns to the first mode. The number of correct belly-swims in 30 second is

student's point. Tests were confirmed by physical education experts and power of the first test was calculated 85% by the Kronbach' alpha method and the second test was calculated 87%.

Statistical Analysis

Data were analyzed with ANOVA scale: 3(group) ×2(operation) ×2(time). Then ANOVA scale was calculated for each work following scales of pre-test or post-test among each group: 3(group)×2(time) and for significant differences, the effect sizes of μ^2 and Kohen's was calculated. For data analysis used SPSS₂₂ software.

Results

In the table (1), mean and standard deviations are introduced for all separate dependent variables for each group and skill (table 1).

Table 1: main and standard deviations are introduced for all variables

Group	Swim test				Volleyball Pass			
	Pre-test		Post-test		Pre-test		Post-test	
	mean	SD	mean	SD	mean	SD	mean	SD
Group 1	12.28	5.66	13.72	5.73	7.89	1.78	9.50	2.41
Group 2	11.83	5.19	14.83	6.06	7.00	1.46	8.50	1.82
Group 3	12.67	5.69	12.89	5.18	7.78	3.06	8.11	2.40

In volleyball Pass test P=0.43, F(2.51)=0.87 and in swim test F(2.51)=3.18, P=0.05, par al $\mu^2=0.11$. Comparison between pre-test and post-test in each group shows that educational and motivational self-speech in volleyball toe test lead to increased efficiency. d=0.76 and P<0.001 (educational) and d=0.91 and P<0.001 (motivational) but for control group P=0.41 There are some differences between two self-speech groups (Fig. 1).

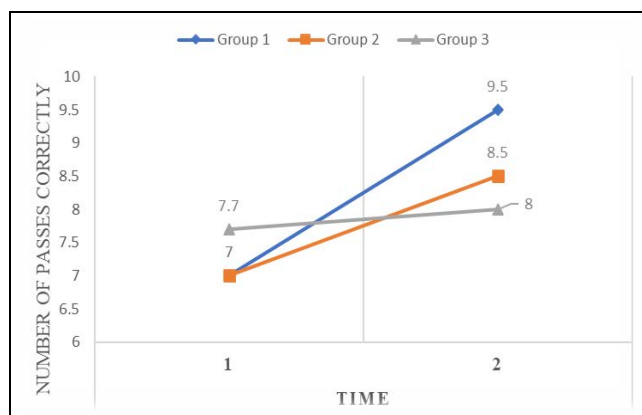


Fig 1: Relevancy between group and time in volleyball Pass passes

For swim test ANOVA scale shows a significant relevancy in group×time. F (2.51) =11.59, P< 0.001, par al N²=0.31. For educational self-speech group d=0.25 and P<0.001 and motivational self-speech group d=0.54 and p<0.001 operation gets better. But for control group P=0.59 it is not (Fig. 2).

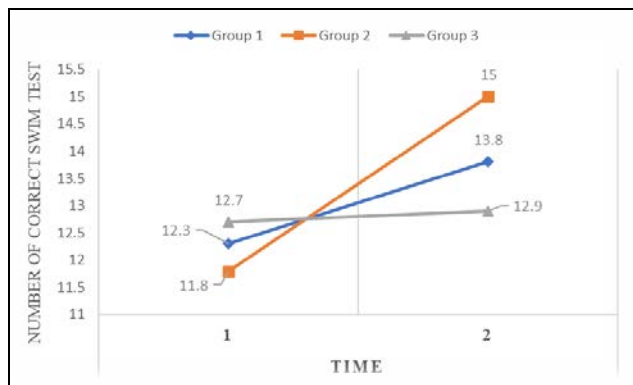


Fig 2: Relevancy between group and time in the number of correct Swim test

Discussion

First hypothesis was verified according to the results, self-speech was effective in upgrading students' dynamic operation [18]. Second hypothesis was not accepted. Indeed, the influence of motivational self-speech on volleyball toe operation was more than educational self-speech. This result was against the former researches Theodorakis *et al* [9] and was compliant with same researches Hatzigeorgiadis *et al* [25], Vakili *et al* [20] & Aghdasi *et al* [21], Hadari & Karimi [7]. That both self-speeches have positive influence on accuracy in water polo. Hypothesis third was proved. Students who used motivational self-speech in modified swimming have improved more in operation than the two other groups, and is compliant with Vaez Mosavi *et al.* [17] research that mental preparation based on motivational self-talk and mental imagery is an appropriate package on enhancing performance of soccer players. The results of Bellomo *et al.*, also confirm the effect of motivational self-talk on motor performance [26].

Results show that selection and using proper key words is very important [18, 27, 28]. One of the restrictions in this research was that results were based on student's dynamic operation and technical aspects should be evaluated in the next researches. Also, checking the effect of multiple types of self-speech, training sessions and types of skills is important.

It is recommended that sport teachers their vocal skills training motivation simple to use and as an important element in the use of speech, the nature of duty, Instructors are required to exercise their right to choose and use the phrases of speech that is commensurate with the nature of the task, try to pay attention, and their expressions of speech, in the context of a simple task to improve the performance of sports skills rather than as an annoying interference acts.

Due to its important role in vocal performance that is documented in this study and previous studies, it can be said that physical educators should be more attention to this issue and use it on different levels of sports training and competition to improve conditions at the athletes' performance and improving learning and concentration, Beginners and Professional.

Conclusions

Relying too much on the exclusive testing of self-talk content on performance (educational and motivational or positive and negative) cannot be an accurate conclusion of the results

obtained, so pay attention to other dimensions of the nature of self-talk. Research on the mechanisms of effectiveness of self-talk on performance is necessary to obtain accurate information about the relationship between self-talk and performance. Examining the interaction of different dimensions of self-talk with other phenomena such as psychological factors can be an important step towards a better understanding of the use and effects of self-talk in different people.

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