

COMPARING IRANIAN STUDENTS' EFFICACY AT THE BEGINNING, MIDDLE AND END OF PHYSICAL EDUCATION CURRICULUM

J. Manouchehri, F. Tojari¹, B. Soheili & S. Samiei

Department of Sport Management

Islamic Azad University, Tehran Central Branch, Iran

(Corresponding Author, Manouchehri.jasem@gmail.com)

ABSTRACT

Self-efficacy in one of the most effective factors in developing sport skills performance and the researches in this area indicated the extent of coaches' abilities in influencing athletes' performance and learning. Self-efficacy is a central and basic factor in psychological adaptability and sport achievement for athletes. The present paper aimed to study physical efficacy status of athlete-students playing football in order to compare their level of efficacy at the beginning, middle and end of Physical Education Curriculum in schools of Alborz province. The researcher after receiving permission and coordination with the department of Education and Football schools commenced to distribute the questionnaire among students 3 times (at the Beginning, Middle and End of required training and learning of students) with the specified intervals. 225 athlete students with the 12-14 years old range were selected as the research statistical sample. The present research was conducted in 2 primary schools and 6 Football schools in Alborz province. Friedman test showed that there is a significant difference differences between students' self-efficacy at the beginning, middle and end of the training course and its amount at the end of the training course was more than first and second stages and also at second stage of measuring it was more than first stage. Wilcoxon test results comparing each two measurements show that the difference between first and second measurement, first and third measurement and also second and third measurement is significant. Therefore, based on the present research findings, it is suggested that due to the influence of athletes' self-efficacy on performance and also the performance on self-efficacy that is a mutual relationship, clubs and sports schools' coaches who work with young newcomer athletes to the sport, have a great emphasize on basic practices and skills training related to their sport in order to not only improve their efficacy and sport performance but also increase participation rate and continuing sport participation in adolescent athletes.

Keywords: Physical self-efficacy, students, football, Physical Education Curriculum.

Introduction

Successful performance in sports is partly dependent on psychological factors; however, athletes must also surely have related abilities to its implementation, but some athletes are less confident in skilled performance, withstanding Performance pressures and continue to work hard. Also athletes not only have realized the confidence of his teammates in sensitive positions of game, but also to have more general beliefs about their ability to succeed (Feltz et al, 2008). Self-efficacy in one of the most effective factors in developing sport skills performance and the researches in this area indicated the extent of coaches' abilities in influencing athletes' performance and learning (Manouchehri, et al, 2013). Self-efficacy is a central and basic factor in psychological adaptability and sport achievement for athletes. Bandura (1986) perceived self-efficacy as a conceptual

process in individuals that produces a mental belief about their capabilities according to environmental demands. Bandura (1986) stated that a personal efficacy feature along with excitement and confidence ought to be involved in competition. Consequently, while athletes don't believe themselves, can not prepare for correct performance of skill or don't attempt sufficient. Pourafkari (2006), perceived self-efficacy as one's Beliefs about his ability to cope with different situations. A low sense of efficacy causes reduction in cognitive function and behavior of person and gradual loss of his interests and skills (TorkLadani, 2010).

Previous researches indicate that self-efficacy influences on physical health. In some cases, the people who believed they could relieve their pain, they were able to fulfill that (Manning and Wright, 1983). Self-efficacy causes recovery from disease. For example, in

a study of patients with chronic obstructive pulmonary disease Akaplan, et al. (1984), found that patients that had more self-efficacy had a better response to cognitive and behavioral therapies. Enhancing self-efficacy and sense of control over events in one's life, positively is related to the ability to cope with stress and minimize its harmful effects on biological functions. Controllability is a key organizing principle regarding the nature of stress effects. Just stressful conditions of life do not cause harmful biological effects, but it is inability perception to control them that is harmful. High efficacy is in relation with strengthening the immune system, reducing the release of stress-related hormones, and reducing vulnerability to respiratory infections (Wiedenfeld, 1990).

Vealey and Hayashi (1998), in order to completely clear resources of self-confidence in athletes according to social and cultural aspects specified to athletic competitions, took sources of information beyond the borders of self-efficacy theory. For example, the distinctive nature of the sport makes social support, beyond verbal encouragement; a major source of confidence. Vealey and Hayashi (1998), developed the Sources of Sport-Confidence Questionnaire (SSCQ) to measure information related to the confidence. They identified nine sources of confidence in high school and collegiate athletes: mastery, demonstration of ability, mental and physical preparation, physical self-presentation, support, vicarious experience, environmental comfort, situational favorableness, and coach's leadership. Considering how these 9-sources are related to Bandura's self-efficacy resources, mastery and demonstration of ability are considered as a reflection of the performance; and mental and physical preparation are tied to emotional and physiological states. Social support and vicarious experience are similar to verbal encouragement. Bandura has not mentioned specifically to physical preparation, leadership and coaching, environmental comfort or

situational favorableness in describing his efficacy sources.

In previous researches, the psychological variable of self-efficacy has been investigated with various approaches. Martinez and Illionis (2010), conducted a study on 222 students to determine The relationship between collective efficacy, group cohesion and positive feedback behavior of the coaches during training course and after completing the course of study findings showed that there is a significant positive relationship Between the three factors, i.e. collective efficacy of students, group cohesion and positive feedback behavior of coaches. Edmonds (2009), examined the relationship between collective efficacy and performance in a single competition of adventure racing of seventeen teams and finding showed that Teams that had higher levels of collective efficacy, made greater efforts to achieve the success and consequently had a better performance. Hu, et al. (2007), in their study as "effects of self-efficacy on physical activity enjoyment in college-aged women", concluded that enjoyment of intensity physical activity among participant with low- or high- efficacy is significantly different and student with high self-efficacy perceive higher physical activity enjoyment. Kozub and McDonnell (2000), in a research on 96 players from 7 teams of rugby clubs, investigated the relationship between group cohesion and collective efficacy among teams. Their research results showed that the level of teams' cohesion is changed by changing the levels of collective efficacy, which shows the relationship between these two variables. In brief they found that task cohesion positively correlated with collective efficacy and the social dimension of cohesion did not add significantly related to collective efficacy. Coaches try to influence the challenges that athletes will be faced, as they not become encounter with serious failures. Wherever possible they will choose events or situations that believe reasonable chance of success for athletes is great in sport, and then go on to harder challenges. People who have

higher self-efficacy select more challenging goals than those who have low self-efficacy (Locke and Frederick, 1984). It is assumed that the continuous projection of challenging goals and positive reactions to the standard functions, increases intensity and level of motivation (Bandura, 1997a). Therefore, as Bandura (1997b) states, Belief in self-efficacy has different effects on goal-oriented behavior. self-efficacy is not only effective on goal-setting, but also is effective on belief to the goals, strategies used to achieve the goals, the level of effort applied to achieve the goals and intensifying efforts (when the result is lower than the objectives or goals). As it is clear of these classifications effort and resistance are influenced by goals and self-efficacy believes. Power of self-efficacy beliefs affect on the amount of athletes' effort to achieve their goals and their resistance against challenges and obstacles. However, examining the effect of using effort in sports situations is not so easy. Take efforts into action in sports competitions is very different compared to the other conditions. For example, the number of ball throwing in a game may be affected by individual effort and also opponent skills, opportunities and precision passes from teammates. In exercise physiology laboratories, efforts should be based on one's energy or the number of sit-up per minutes. For example, for individuals who are more physically ready, minimal effort is required because in this case they need less effort to achieve their tasks. In fact, there is an inverse relationship between efficacy beliefs and the amount of effort (Feltz, et al. 2008). So, considering the importance of promoting the level of athletes and student, especially at young ages, that continued participation in physical activities and sports programs are also important, the present researchers aimed to with studying physical efficacy status of athlete-students in the sport of football, compare their level of efficacy at the beginning, middle and end of Physical Education Curriculum in schools of Alborz province.

Methodology

The method of this study from goal perspective would be a component of applied researches, In terms of data collection is a type of descriptive and inferential. At the beginning of the research process coordination was done with the Department of Education and school administrators. The researcher, after coordination with the Department of Education and football schools and receiving permission, along with the questionnaire were in place and commenced to distribute trainees and trainers enjoyable questionnaires in three stages with the specified interval among students (at the beginning, middle and end of the training course).The following points was carried out at the procedure of the study:

1. The subjects were asked prior to filling the questionnaire, carefully pay attention to the explanations and instructions given by the researcher, and respond to all questions.
2. The athletes were asked to answer what they feel in the moment with honesty and accuracy and on any question, do not think too much and just express their feelings, because there is no wrong or right answer.
3. About preserving the questionnaire bay the researcher confidentially it was assured that the results would not be given to the trainers and participants.
4. Due to the trainers' age and existing psychological sensitivity, the athletes were asked to not include their name on questionnaires.
5. Necessary guidance was performed to all questions of athletes while answering the questionnaires (Due to their age and the possibility of questions ambiguity for them).

Participants

The statistical community included all male athlete students of Karaj Football schools. Referring to Morgan's Table and utilizing categorical random sampling, 225 athlete students with the 12-14 years old range were selected as the research statistical sample. The

present research was conducted in 2 primary schools and 6 Football schools in Alborz province.

Measures

In this survey, two questionnaires were used. *Demographic Questionnaire*: including personal information such as age, and sport activity background. *Physical Self-Efficacy Questionnaire (PSE)*: this scale was used for measuring self-efficacy feeling and included 10 Football basic techniques and participants respond to them from 0 to 10 regarding their confidences (self-efficacy) and abilities about each skill. The final marks for each participant were calculated by the marks means. Internal validity of this scale measured %95 by the researches and its reliability confirmed by coaches, practitioners and specialists in this field.

Statistical Methods

For analyzing row collecting data, first at descriptive level, using statistical indicators the demographic characteristics of the study population, including age and sports background was described. Cronbach's alpha test was used for measuring reliability of scales. To test the significance of the observation and latent variables and estimating obtained measurement models Confirmatory Factor Analysis (CFA) was used.

Results

As table 1 shows the mean age of participants were 12.56 (0.76) rating from 12 to 14 years old, and also their mean year of sports background were 3.18 (1.7) rating from 0 to 8 years.

Table 1. Descriptive of demographic characteristics of the study population

	Age	Sports Background
Mean	12.54	3.18
Standard Deviation	0.76	1.7
Lowest	12	0
Highest	14	12

According to the research findings, Highest Average ($X = 8.17$) belongs to "Inside-of-foot pass" statement and the lowest ($A = 7.43$) is for the "Knee Control" statement and the highest standard deviation ($SD = 2.30$) belongs to the

"Knee Control" statement. Also, as the table of descriptive statistics shows, based on ten point Likert scale, self-efficacy Variable of students is in relatively suitable condition, because its mean is more than 8.

Table 2. Investigate descriptive statistics and self efficacy status and dimensions (Test value = 7).

Research Variables	Abbreviation	SIG	T	Mean	SD	Status
Students Self-Efficacy	SE.ATH	0.000	9.703	8.018	1.574	Suitable

Friedman test showed that there is a significant difference among the amount of athletes' self-efficacy at the beginning, middle and end of the training course and its amount

at the end of the training course was more than first and second stages and also it was more than first stage at second stage of measuring.

Table 3. Comparison of students' self-efficacy at the beginning, middle and end of the training course $P < 0.05$

Self-Efficacy	Mean	SD	Mean Square	Chi-square	df	SIG
First Measurement	6.43	1.62	1.61			
Second Measurement	7.10	1.55	1.95	78.15	2	0.00
Third Measurement	8.03	1.58	2.44			

Wilcoxon test results comparing each two measurements show that the difference between first and second measurement, first

and third measurement and also second and third measurement is significant.

Table 4. Paired comparisons of students' self-efficacy at the beginning, middle and end of the training course $P < 0.05$

Self-Efficacy	Z	Si _g	Self-Efficacy	Z	Si _g	Self-Efficacy	Z	SIG
First Measurement	4.25	0.00	First Measurement	9.16	0.00	Second Measurement	5.79	0.00
Second Measurement			Third Measurement					

Discussion and Conclusion

Today, not only athletes have realized the necessity of self confidence individually, but also sports teams should have a general believe of their abilities to achieve success and have a good performance. Athletes and coaches' Self-efficacy in addition to the tangible impacts on athletic performance, influence other aspects of their personal and social environment. Many scholars such as Feltz and Lirgg (1998) and Zaccaro, et al. (1995) based on Bandura 's theory predicted the resources or the factors affecting the efficacy of a sports teams (Zaccaro, et al., 1995). Results of some previous studies have shown an increasing at the level of group (or collective) efficacy of teams that have been victorious and successes in their competitions and also the teams defeating their competitions, have been associated with lower levels of collective efficacy. Yet, some researchers have reported that the effectiveness level of individual players after victory or defeat of their teams has not been changed. Feltz and Lirgg (1998) in a research on hockey players showed that Levels of collective efficacy after winning of teams increase and subsequent to defeats, decline

(Feltz and Lirgg, 1998). Also, Zaccaro, et al. (1995) reported that, the team's success or failure which is intermittent and sustained, change levels of group efficacy and random failure or success which is unstable dose not have much impact on the collective efficacy (Zaccaro, et al., 1995). Another factor affecting the collective efficacy is verbal encouragement of athletes by their coach or the leader of the team. Leadership theories and models have mentioned to this point that effective leaders by encouraging and supporting subordinates, increase their perception of their abilities (Bass, 1985). Group size can also change the collective efficacy. This means that the larger the group, the group members are less likely to influence and participate in activities and this lead to a decrease in self-efficacy and perceptions of people towards their team capabilities. In addition by becoming groups larger, conflict and disagreement among people increases and it can lead to lower levels of collective efficacy. In addition, some studies have shown that by becoming groups larger, the efforts of individuals and therefore their performance decline (Shaw, 1981). The analysis of finding of this research showed

that there is a significant difference among the amount of athletes' efficacy at the beginning, middle and end of the training course and its amount at the end of the training course was more than first and second stages and also at second stage of measuring was more than first stage. Test results comparing each two measurements showed that the difference between first and second measurement, first and third measurement and also second and third measurement is significant. As it is clear, the amount of athletes' self-efficacy at the end of the course that practices related to the skills were taught to the athletes, comparing with beginning and end of the course, were significantly greater. Athlete's self-efficacy seems to be natural, because considering practices of athletes and along with these exercises and improvement in athletic performance associated with gaining skills, it seems that the amount of athletes' self-efficacy in relation to skills have been greater and Of course, this confirms that the practice of skills has been well planned and also have had impact on the level of athletes' skill very well and Finally, athletes had a good understanding of this issue. Also, considering the limitations of the present study that was performed to investigate the age category 12

to 14 years (teenagers), necessity of conducting research in other age groups (e.g. youths, adults) is significant. In addition, since participants of this research were males, necessity of conducting research in other fields of sports as well as sports of this research with presence of females is significant. In addition, cultural, social, personal and financial differences and the method or way of answering the questions may provide different results that should be considered by the next researchers. Considering the importance of self-efficacy in young athletes, it is recommended coaches and staff of teams and sports schools to improve mental skills and to increase athletes' self-efficacy through short-term courses and classes in psychology. According to the effect of the athletes self-efficacy on performance and also the performance on it which is a reciprocal relationship, it is suggested sports clubs and schools coaches who train young athletes- who are sport new comers- stress on their specific sports basic trainings and skills. By this way not only the coaches can increase these youth's self-efficacy and performance, but also they can increase the rate of their sport participation and continuing it.

References

- Bandura, A. (1986).** Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs. NJ: Prentice-Hall.
- Bandura, A. (1997a).** Social Learning Theory. Englewood Cliffs .NJ: Prentice-Hall
- Bandura, A., 1997.** Self-Efficacy: Toward a Unifying Theory of Behavioral Change. Psychological Review. 84, 191-215.
- Bandura, A. (1997b).** Self-efficacy: The exercise of control. Chapter q-athletic functioning. Bass, B.M., (1985). Leadership and performance beyond expectations, New York: Fr.
- Edmonds, W. (2009).** The Role of Collective Efficacy in Adventure Racing Teams, Small Group Research. Thousand Oaks: Vol. 40, Iss. 2, pg. 163.
- Feltz, D.L. & Lirgg, C.D. (1998).** Perceived team and player efficacy in hockey, Journal of Applied Sport Psychology, 83, 557-564.
- Feltz, D.L., Short, S.E. & Sullivan, P.J. (2008).** Self-efficacy in Sport. Human Kinetics Press.
- Hu, L., Motl, R., McAuley, E., Konopack, J.F. (2007).** Effects of self-efficacy on physical activity enjoyment in college-aged women, International Journal of Behavioral Medicine, Vol. 14, No. 2, 92- 96.
- Kaplan, R.M., Atkins, C.J., & Reinsch, S. (1984).** Specific Efficacy Expectations Mediate Existence in Patients with COPD. Health Psychology. No 3. Pp223-242.

- Kozub, S., & McDonnell, J. (2000).** Exploring the relationship between cohesion and collective efficacy in rugby teams. *Journal of Sport Behavior*, 23, 120-129.
- Locke, E.A., & Frederick, E. (1984).** Effect of Self-efficacy, Goals and Task Strategies on Performance. *Journal of Applied Psychology*. No 69. pp 241-251.
- Manning, M.M., & Wright, R. (1983).** Self-efficacy Expectancies. Outcome Expectance and the Persistence of Pain Control in Childbirth. *Journal of Personality and Social Psychology*. No 45. pp. 421- 431.
- Manouchehri J., Tojari F., Soheili B. (2013).** Confirmatory Factor Analysis: The Coaching Efficacy Scale (CES) in Iranian Sports Leagues. *Adv. Environ. Biol.*, 7(14), 4709-4713.
- Martinez, R., Illionois, C. (2010).** Investigation of the effects of team coaching, performance feedback and collective efficacy on small group performance, a thesis submitted to the faculty of the graduate school in candidacy for the degree of Master of Arts, Loyola University Chicago.
- Pourafkari, N. (2006).** Comprehensive directory on psychology and psychiatry and the related grounds, Tehran, Farhang Moaser Publication.
- Shaw, M.E. (1981).** Group dynamics: The psychology of small group behavior (3rded.) New York: McGraw-Hill.
- TorkLadani, F. (2010).** Self-efficacy influence on people's success in life, quarterly for educational, analytical and informative of School Advisory, 6(2): 1-10.
- Vealey, R.S. & Hayashi, S.W. (1998).** Sources of Sport-confidence. *Journal of Sport and Exercise Psychology*. No 20. pp 54-80.
- Wiedenfeld, S.A., O Leary, A., Bandura, A., Brown, S., Levine, S., & Raska, K. (1990).** Impact of Perceived Self-efficacy in Coping with Stressors on Components of the Immune System. *Journal of Personality Social Psychology*. No 59. Pp 1082- 1094.
- Zaccaro, S.J., Blair, V., Peterson, C. & Zanzanis, M. (1995).** Collective efficacy, In J.E. Maddux (Ed.), *Self- efficacy, Adaptation, and Adjustment: Theory, research, and application* (pp 305-328). Plenum Press, New York.