

# Are Candidate Coaches Ready for Coaching? Coaching Efficacy of Candidate Coaches

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**Abstract**— Increasing the efficacy of candidate coaches is one of the main objectives of coaching education programs. The purpose of the present study is to determine coaching efficacy of candidate coaches. Adopting the survey design a total of 507 candidate coaches participated to the study. The study used the Coaching Efficacy Scale as data collection tool. The data were analyzed by using descriptive statistics, independent sample t test, and multiple regressions analyzes. In the study it has found that candidate coaches had high level coaching efficacy. In the comparison of gender and type of sports variable between coaching efficacy it has not found any significant differences. However it has found that significant differences between coaching experiences. In another result which was obtained from the study while coaching experience was an important predictor of all the dimensions of coaching efficacy, gender and sport type were not.

**Index Terms**— Coaching Efficacy, Coaching Experience, Gender, Sport Type.

## I. INTRODUCTION

It is seen that the efficacy concept has been applied in many fields including education, industry, health etc. in recent years. Studies on physical education and sports, physical education teachers [1,2] and the efficacy of coaches [3-9] are among the fields where the efficacy concept is used.

The concept of coaching efficacy is based on self efficacy theory [10]Bandura, 1986) and the model of teacher efficacy [11]. Coaching efficacy is considered an important variable of the personal characteristics that affect coaching behavior ([12] and it is the belief coaches hold concerning their ability to perform a specific action [3]. Feltz et al. [3] classified the factors that determine coaching efficacy in four dimensions as motivation, character building, game strategy, and technique efficacies. Regarding these factors, Motivation Efficacy (ME) which examines coaches' belief in influencing the psychological mood of athletes. Character Building Efficacy (CBE) addresses coaches' belief in influencing athletes' personal development and positive attitudes. Game Strategy Efficacy (GES) addresses a coach's leadership talent or his/her ability of taking decisions which may affect the game or the result of the game. Technique Efficacy is the belief coaches have in their instructional and skills refinement ability. The complete hierarchical model also indicates total coaching efficacy (TCE). Feltz et al. [3] designed the Coaching Efficacy Scale (CES) to assess the level of coaches' effectiveness and offered a model of

coaching efficacy to serve as a starting point for related studies.

The Coaching Efficacy Scale has established an important line of research on coaching efficacy. Whether coaching efficacy varies or not according to the type of sports and gender was an important research topic. Concerning this issue, Bandura [10] argued that efficacy would not change according to gender. However, in the following studies it was reported that male coaches had higher efficacy than female coaches [4,7,13,14]. In other studies indicated that there were differences between the athletes' sports types (individual or team). Accordingly, it was stated that individual sports coaches had higher efficacy than team sports coaches and this is affected the performance of the athletes [15,16].

There are many factors which positively affect the efficacy level of coaches. However, coaching education programs [4] and experiences [10,17] are the sources of coaching efficacy which contribute to the efficacy development of coaches. A previous study has provided support for this postulate, and the ability of a coaching education program to increase coaching efficacy. With a sample of inexperienced coaches, Malete & Feltz ([4] found increases in coaching efficacy following participation in a coaching education course. [18]. Malate & Feltz [4] and Sullivan et al. [14] showed that the support coaching education courses or programs gave had an important effect on coaching efficacies. At the same time many researchers emphasized that, experience had an important effect on the efficacy of coaches [7,9,16].

Coaches serve in various fields which include many processes such as the selection of athletes, educating athletes, preparation for competitions, the preparation of training programs and the nutritional needs of athletes. Coaches should have some competencies in order to fulfill the responsibilities that they undertake during the processes of selecting and educating the athletes of the future. It is thought that the determination of these competencies and increasing them would be very important for the education of coaches who will offer direction to the sports of a country.

Coaching education programs in Turkey are formally carried out in 2 ways. The first way is in coaching course programs of two or three weeks and organized by national federations. The second one is the diploma programs which are completed over the course of 8 semesters in the physical education and sports schools of universities. Students who study in the coaching education departments of universities are mostly either active athletes or they have previous sports experience. The curriculum of the coaching education programs in Turkey involves basic information about general coaching education during the first four or six semesters;

theoretical information for the specialization field of the candidate in a sports branch during the last two or four semesters; and coaching experience applications (as an assistant coach accompanied by an expert or head coach) besides specialization in a sports branch during the last two semesters. This experience process is based on the supposition that coaching candidates can improve their knowledge in coaching and that they can become elite coaches by working with an expert coach; as this process helps candidate coaches to reach specific levels/degrees of specialization [19].

Studies concerning coaching efficacy based on the impact of variables which are gender [4,7,13] and experience [7,9,16]. However, studies concerning the efficacy of candidate coaches, those who study in coaching education programs in universities have not been studied yet. For this reason, the present study aims to determine the efficacy level of candidate coaches who have been studying in coaching education departments of universities; whether their efficacy level changes according to gender, coaching experience and sports type. Also it has been determined that these demographic variables were important predictors for coaching efficacy of the candidate coaches.

## II. METHOD

### A. Participants

The sample of the research consisted of 507 candidate coaches who study in the department of coaching education in the physical education and sports school of different universities (10) in Turkey who undertake a specialist education program in their sports branches; and who are still active in individual (athletics=18.3%, archery=13.7%, badminton=20%, karate=8.6%, court tennis=16%, wrestling=23.4%) or team (basketball=23.2%, soccer=37.7%, hockey=6.6%, handball=14.5%, volleyball=18%) sports or who have previous player experience. The ages of participants ranged between 20-25 years ( $22 \pm 2.15$ ) and their sports experience ranged between 4-11 years ( $8.42 \pm 2.24$ ). Some participants had experience as assistant coaches (without license) over 0-4 years (n=181 for 1 year, n=67 for 2 years, n=68 for 3 years and n=14 for 4 years) (04.09) in school teams or within the sport clubs' subdivision. Universities have different curriculums; for this reason; specialist education on the specific sport type for coaching departments starts in the third year in some universities while it starts in the fourth year in others. On the other hand, coaching experience lessons are given in the last two semesters (seventh and eight semesters) in all of the universities. For this reason, the sample groups of the study were chosen among the third and fourth year students.

### B. Instrument

The Coaching Efficacy Scale which was used was the one designed by Feltz et al[3]. It is a 24-item instrument in which the candidate coaches are asked to determine the degree of confidence they have in their abilities to affect the sporting performances of their athletes. A hierarchical model defined by a four factor structure (ME, TE, GSE and CBE) converging to a general factor (TCE) is hypothesized. Items

including 'how confident are you in your ability to' are scored on a 10 point Likert scale ranging from 0 (not at all confident) to 9 (extremely confident). The scale contains items such as 'motivate your athletes or mentally prepare them for competition', identified by ME; 'detect skill errors and teach the skills of sport', identified by TE; 'recognize the opposing team's strength and make critical decisions during competitions', identified by GSE and 'promote good sportsmanship and instill an attitude of fair play among athletes', identified by CBE. The internal consistency analyses revealed standardized Cronbach  $\alpha$ 's of .87 (ME), .83 (TE), .83 (CBE), .85 (GSE), and 0.93 (TCE).

### C. Data Collection

Research data were collected at the end of the 2012-2013 academic year spring term before the final exams. With the permission of the school or department directors, when all the candidate coaches were in the classroom, they were informed that the present study would include only volunteer males and females who are still active in sports or who have had previous playing experience; and students who were not volunteers or did not fit the active/experience criteria were asked not to participate. In face to face interviews, volunteer participants were given a short summary of the importance and purpose of the research; and they were asked to answer honestly the questions in "the Turkish Version of the Coaching Efficacy Scale [20] which included demographic variables (age, sex, coaching experience, type of sport etc.). Informed consent was obtained from the entire body of candidate coaches and they were given a guarantee of confidentiality in regard to their responses.

### D. Statistical Analysis

Frequencies and percentages were derived from the demographic information and a descriptive analysis was utilized to determine the mean  $\pm$  standard deviations of the total and the four dimensions of coaching efficacy obtained from the sample candidate coaches. Cronbach's alpha coefficients were calculated to determine the reliability of the dimensions identified as ME, TE, GSE, CBE, and TCE. Pearson's correlation coefficients were calculated to examine the relationships between novice coaching experience and ME, TE, GSE, CBE, TCE. Independent t tests were conducted for the gender of candidate coaches, type of sports and novice coaching experiences to determine if there are differences among these demographic variables and their influence on the ME, TE, GSE, CBE, and TCE. Multiple linear regression analysis was conducted to examine the effect of independent variables (gender, previous coaching experience and sport type) on the dependent variables (ME, TE, GSE, CBE, and TCE).

## III. RESULTS

In this part of the research, it was presented that findings related to candidates coaches coaching efficacy and the comparison between gender, coaching experience and sport branches variables. It has also shown that demographic variables such as between gender, coaching experience and sport branches as an important predictor for coaching efficacy.

Findings concerning standard deviation values and the mean values that candidate coaches obtained in the whole of the Coaching Efficacy Scale and in its sub-dimensions are presented in Table 1.

**Table 1: Coaching Efficacy of Candidates Coaches**

CES	N	M	SD
ME	507	7.14	.974
TE	507	7.20	.873
GSE	507	7.02	.903
CBE	507	7.29	.946
TCE	507	7.14	.836

Table 1 presents the mean values by the candidate coaches which obtain from the CES scale as a whole and from each of its four subscales. It was seen that the subscale that candidate coaches felt themselves the most efficacy was “CBE” (M=7.29, SD= .946). Also it was determined that subscales such as “TE” (M= 7.20, SD= .873) and “ME” (M=7.14, SD=.974) followed it. The lowest mean value of candidate coaches obtained from the subscales was “GSE” (M=7.02, SD= .903). In the total of the scale, it was seen that coaching efficacy levels of candidate coaches were (M=7.14, SD=.836).

A t - test (Independent Samples t test) was carried out in order to determine if there were any differences between the mean values that candidate coaches obtained on the whole coaching efficacy scale and its sub-dimensions in terms of the “gender” variable. The results are presented in Table 2.

**Table 2: Coaching Efficacy of Candidates Coaches on the Basis of Gender**

CES	Female (n=180) M±SD	Male (n=327) M±SD	t	df	p
ME	7.04 ± .888	7.18 ± 1.015	-1.507	505	.133
	7.13 ± .831	7.23 ± .894	-1.839	505	.067
TE	6.92 ± .882	7.07 ± .910	-1.135	505	.257
GSE	7.2 ± .896	7.32 ± .971	-1.348	505	.178
CBE	7.05 ± .784	7.18 ± .861	-1.700	505	.090
TCE					

Table 2 compares candidate coaches coaching efficacy levels on the basis of gender. Accordingly, no gender-based statistically significant difference is observed between the mean values by the candidate coaches on the CES as a whole and on its subscales (p > .05).

A t - test (Independent Samples t test) was carried out in order to determine if there were any differences between the

mean values that candidate coaches obtained on the whole coaching efficacy scale and its sub-dimensions in terms of their “coaching experience” variable. The results are presented in Table 3.

**Table 3. Coaching Efficacy of Candidate Coaches on the Basis of Coaching Experiences**

CES	Experienced (n=235) M±SD	Inexperienced (n=272) M±SD	t	df	p
ME	7.45 ± .789	6.85 ± 1.032	7.245	505	.000
TE	7.47 ± .820	6.96 ± 0.848	6.884	505	.000
GSE	7.43 ± .748	6.66 ± 0.872	10.602	505	.000
CBE	7.61 ± .856	7 ± 0.929	7.653	505	.000
TCE	7.47 ± .699	6.84 ± 0.836	9.115	505	.000

According to the results shown in Table 3, it was found that significant difference between the mean values by the candidate coaches on the CES as a whole and on its subscales (p < .05).

A t - test (Independent Samples t test) was carried out in order to determine if there were any differences between the mean values that candidate coaches obtained on the whole coaching efficacy scale and its sub-dimensions in terms of the “sport type” variable. The results are presented in Table 4.

**Table 4: Coaching Efficacy of Candidate Coaches on the Basis of Sport Type**

CES	Individual (n=175) M±SD	Team (n=332) M±SD	t	df	p
ME	7.14 ± .949	7.14 ± .987	-.201	505	.840
	7.25 ± .785	7.16 ± .915	1.014	505	.311
TE	7.08 ± .900	6.99 ± .903	1.052	505	.293
GSE	7.29 ± .964	7.28 ± .937	.143	505	.886
CBE	7.17 ± .806	7.12 ± .852	.566	505	.571
TCE					

Table 4 compares candidate coaches coaching efficacy levels on the basis of sport type. Accordingly, no gender-based statistically significant difference is observed between the mean values by the candidate coaches on the CES as a whole and on its subscales (p > .05).

In the study it has also tried to determine predicting power of demographic variables on coaching efficacy of candidate coaches and results of the multiple linear regression analysis was given in Table 5. In analysis, each of sub-factor points of CES was taken as dependent variable; demographic

variables; gender, coaching experience and type of sport as dependent variable.

**Table 5: Multiple Linear Regression Analysis for the Demographic Variables as Predictors of the Coaching Efficacy**

Dependent Variable	Adjusted R <sup>2</sup>	F <sub>(506)</sub>	Predictor	β	t	p
ME	.136	27.590	Gender	.076	1.825	.069
			Coaching	.311	7.307	.000
			Type of	.017	402	.688
TE	.138	28.083	Gender	.063	1528	.127
			Coaching	.369	8.887	.000
			Type of	-.012	-291	.772
GSE	.140	28.444	Gender	.062	1.483	.139
			Coaching	.370	8.925	.000
			Type of	-.024	-582	.561
CBE	.102	19.081	Gender	.040	929	.353
			Coaching	.315	7.426	.000
			Type of	.014	332	.740
TCE	.124	24.781	Gender	.055	1.302	.193
			Coaching	.351	8.393	.000
			Type of	-.003	-80	.936

In table 5 it was presented that regression analyzes which was determine predicting power of demographic variables on coaching efficacy of candidate coaches. The results of regression analysis showed that while the coaching experience was an important predictor of all the dimensions of coaching efficacy scale, gender and sport type were not.

IV. DISCUSSION

This study was conducted to determine efficacy of candidate coaches according to the gender, sport types and coaching experiences. However, there has not seen any study which was aimed at determine the efficacy level of candidate coaches. For this reason, the present study may be considered to have an importance for the efficacy of candidate coaches and the variability of efficacy according to the demographic characteristics chosen. Additionally, the study also examined whether the selected demographic characteristics were predictors of coaching efficacy or not. The coaching efficacy of candidate coaches was determined with a CES scale in the present study [3]. The results of the CES indicated that the subscale of questions for ME, TE, GSE and CBE, and TCE were highly reliable for this study and this was consistent with previous studies ([3,5,16].

This study indicated that despite very few years of coaching experience, coaching experience was a significant predictor of all dimensions of coaching efficacy and TCE. Relation to it, a positive, moderate but significant relation was revealed between coaching experience and all

dimensions of coaching efficacy. Bandura [21];) explained that mastery experiences are the most important source of efficacy beliefs. The findings of Feltz et al. [3] were consistent with those of Bandura [21] and they recognized that experiences are a primary source of all aspects of coaching efficacy, and specifically noted educational experience as a prime type of mastery experience. For this reason, experienced coaches may have a higher level of confidence in coaching efficacy than inexperienced ones; or experience or seniority may positively affect efficacy belief [6]. In the previous studies of coaching efficacy and coaching experience, it was reported that coaching experience was an important predictor of ME [3,7], TE [3,6], GSE [22], and CBE [7,9]; and there was a positive and strong relation between coaching experience and coaching efficacy.

Sports type and gender differences were not important as predictors of coaching efficacy unlike coaching experience in this study. However, Kavussanu et al. ([5]; and Sullivan et al. [14] reported that gender difference was an important predictor of GSE as male coaches have more confidence in their efficacy for leading the team during the game. Moreover, Millard [23] stated that there were important differences between males and females in terms of coaching behaviors; these differences were in relation with many factors and they resulted from coaching experience year. The gender difference in relation to the coaching efficacy of the participants in the present study may not be very clear as they have little coaching experience. For this reason, gender difference may not be an important predictor of coaching efficacy. One of the hypotheses of the present study was that sports type could be an important predictor of GSE and ME. This is because an individual sport is thought to be a sports type which requires fewer strategies and whose necessary instructions may be managed more simply than in team sports as the number of players is fewer [24]. The determination of suitable strategies was thought to be directly associated with the experience of coaches in this regard [3,5] as the number of players in team sports in both teams is higher, and this requires a more complicated game strategy [25]. Furthermore, it was supposed that the behaviors of coaches in individual sports were more explicit than the behaviors of coaches in team sports [24] and accordingly they had higher coaching efficacy confidence.

According to the theory of Bandura [21] there should be no difference between males and females in terms of efficacy belief. The results of this study related to the TCE and four dimensions of the coaching efficacy showed that there were no significant differences between male and female candidate coaches and this is consistent with the results of Myers et al. [16] and Everhart and Chelladurai [26]. Other studies, however, indicated that except for GSE, male coaches felt more confident in their abilities than female ones [7,13]. Kovalski et al., [6] and Malette and Feltz [4] reported that male coaches had higher GSE than female and the TE, CBE and ME were different between males and females. In other studies, it was reported that male coaches had a higher coaching efficacy value than female coaches especially in terms of GSE [5] and TE [27] It was seen that there are different findings in the literature concerning coaching



efficacy and its dimensions as related to gender differences. It should be taken into consideration that these different results about the gender differences may be related to previous playing patterns and years of coaching experiences, some sport specific knowledge or the formal coaching education process of the respondents [28]. For this reason, there is a need for further studies which include different demographic and psychological characteristics in order to conclude whether coaching efficacy changes or not according to gender.

The lack of the experience indicator in this sample can be partially explained by a restriction of range due to the fact that most of the coaches have four years of experience as a novice or assistant coach. The findings indicated that candidate coaches, even with limited experience, had higher teaching, motivation and total coaching efficacy than inexperienced candidates. However, game strategy efficacy and character building efficacy were not different between the experienced and inexperienced candidate coaches. Regarding coaching efficacy, it has been repeatedly reported that coaching efficacy is closely related and highly correlated to coaching experience. Malete & Feltz [4] reported that with a heterogeneous sample of coaches, coaching experience was significantly related to teaching efficacy. Feltz et al., [29] also found that years in coaching were significantly correlated to teaching, motivation and game strategy efficacy. According to the results of the present study and the literature, coaching experience is an important determinant of coaching efficacy; and the self-confidence of coaches shows an increase as they have more experience [30]. The results of the present study have values which are above mean values; and they show similarity with the values of experienced coaches as mentioned in the literature [3,8,16]. That the participants have high efficacy confidence even though they are candidates for coaching, can be explained by the self-confidence [31] they have due to their sports experiences or the impact of a coaching education program. On the other hand, coaching experience, despite being limited, may have positively affected the coaching behaviors of candidate coaches [3] and increased their confidence in analyzing technical competencies related to their own sports branches and motivating their own athletes [5] However, candidate coaches with limited experience of game strategy may not believe in their ability to conduct a competition. Besides, even though they are active athletes or they have previous coaching experience, they may not have enough opportunity and time for the generation of a feeling of confidence for affecting the character building of athletes as they are novice coaches.

There are insufficient studies concerning opinions and beliefs on the difficulties and differences between individual sports coaching and team sports coaching. For this reason, the answers that may be given to the question, "Which coaches (individual or team sports coaches) have a higher efficacy confidence?" may be contradictory. When individual and team sports are compared as a group, the number of players in team sports is higher than in individual sports. It can be inferred that it may be easier to direct fewer players during the game, or to guide them according to the conditions of the

game, as opposed to directing and guiding more players. Therefore, game strategy and motivational efficacy may be higher in individual sports coaching than in team sports coaching. Besides this, the coaches in individual sports may spend more time on each athlete in order to affect their characters, increase their motivation and contribute to their technical improvement [25]. Given this approach, it can be supposed that the efficacy confidence of individual sports coaches may be higher than that of team sports coaches. Yet, the individual sport coaches had higher levels of confidence only in teaching efficacy when compared with team sport coaches. This result can be associated with the player level of the candidate coaches or their years of experience. Even though it was not stated in the findings of the present research, when the demographic characteristics of the participants were examined, it was seen that their athletic experience level (municipal, amateur, varsity, sub-elite, elite or national and international) covered a large field. When gender and coaching experiences were not taken into consideration, the player level of most candidate coaches, especially in wrestling, athletics and archery, was at national and international level. As elite or top level players must be prepared to invest many hours of intensive training over many years, for this reason, it is thought that their technique abilities are at a higher level than other players who are non-elite [32]. It is well known that the strength of previous experiences plays a very important role in the development of self efficacy [21,31,33] For this reason, coaches with high athletic levels or with much experience may have higher confidence in their technical abilities.

## V. CONCLUSION

The results of present research showed that the coaching efficacy confidence of candidate coaches who study in the formal coaching education programs of universities showed a similarity with the confidence level of expert or elite coaches. According to these findings, it can be concluded that candidate coaches find themselves efficient and they are ready for the coaching profession. Even if they have limited coaching experience as assistant coaches, this experience was found to be an important predictor of the coaching efficacy confidence. Furthermore, the motivation, game strategy and total coaching efficacy values of the respondents with coaching experience were higher than those of inexperienced ones. Based on these results, it can be inferred that the coaching experience applications during the coaching education program have an important impact on the increase in the efficacy confidence of candidate coaches.

## REFERENCES

- [1] Martin, J., Mc Caughtry, N., Kulinna, P. and Cothran, D. (2008). The influence of professional development on teachers' self-efficacy toward educational change. *Physical Education & Sport Pedagogy*, 13, 171-191.
- [2] Unlu, H. and Kalemoglu, Y., Academic self-efficacy of Turkish physical education and sport school students. *Journal of Human Kinetics*, 2011, 27, 190-203.
- [3] Feltz, D.L., Chase, M.A., Moritz, S.E. & Sullivan P.J. (1999). A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of Educational Psychology*, 91, 765-776.

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- [4] Maleté, L., & Feltz, D.L. (2000). The effect of coaching education program on coaching efficacy. *The Sport Psychologist*, 14(4), 410-417.
- [5] Kavussanu, M., Boardley, I.D., Jutkiewicz, N., Vincent, S. & Ring, C. (2008). Coaching efficacy and coaching effectiveness: Examining their predictors and comparing coaches' reports. *The Sport Psychologist*, 22(4), 383-404.
- [6] Kowalski, C.L., Edginton, C.R., Lankford, S.V., Waldron, J.J., Roberts-Dobie, S.R., & Nielsen, L. (2007). Coaching efficacy and volunteer youth soccer coaches. *Asian Journal of Exercise and Sport Science*, 4(1), 9-13.
- [7] Marback, T.L., Short, M.W., Short, S.E., & Sullivan, P.J. (2005). Coaching confidence: An exploratory investigation of sources and gender differences. *Journal of Sport Behavior*, 28, 18-34.
- [8] Sullivan, P., & Kent, A. (2003). Coaching efficacy as a predictor of leadership style in intercollegiate athletics. *Journal of Applied Sport Psychology*, 15(1), 1-11.
- [9] Short, S.E., & Short, M.W. (2004). Coaches' assessment of their coaching efficacy compared to athletes perceptions. *Perceptual and Motor Skills*, 99(2), 729-736.
- [10] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hill, Englewood Cliffs, NJ.
- [11] Denham, C.H. & Michael, J.J. (1981). Teacher sense of efficacy. A definition and a model for further research. *Educational Research Quarterly*, 5, 39-63.
- [12] Horn, T.S. (2002). Coaching effectiveness in the sports domain. In T.S Horn.(Ed.), *Advances in Sport Psychology* (2nd Ed.) (pp. 309-354). Champaign, IL.: Human Kinetics.
- [13] Cunningham, G.B., Doherty, A.J. & Gregg, M.J. (2007). Using social cognitive career theory to understand head coaching intentions among assistant coaches of women's teams. *Sex Roles*, 56, 365-372.
- [14] Sullivan, P., Paquette, K.J., Holt, N.L., Bloom, G.A. (2012). The relation of coaching context and coach education to coaching efficacy and perceived leadership behaviors in youth sport. *The Sport Psychologist*, 26, 122-134.
- [15] Baker, J., Yardley, J., & Cote, J. (2003). Coach behaviors and athlete satisfaction in team and individual sports. *International Journal of Sport Psychology*, 34(3), 226-239.
- [16] Myers, M.D., Vargas-Tonsing, T.M. & Feltz, D.L. (2005). Coaching efficacy in intercollegiate coaches. *Psychology of Sport and Exercise*, 6(1), 129-143.
- [17] Giske R, Benestad B, Haraldstad K and Heigaard R (2013) Decision-Making Styles among Norwegian Soccer Coaches: An Analysis of Decision-Making Style in Relation to Elite and Non-Elite Coaching and Level of Playing History. *International journal of Sports Science & Coaching* 8(4): 689-701.
- [18] Campbell, T., & Sullivan, P. (2005). The effect of standardized coaching education program on the efficacy of novice coaches. *Avante*, 11(1), 38-45
- [19] Saury, J. & Durand, M. (1998). Practical coaching knowledge in expert coaches: On site study of coaching in sailing. *Research Quarterly for Exercise and Sport*, 69(3), 254-266.
- [20] Gencer, R.T., Kiremitci, O & Boyacıoğlu, H. (2009). Psychometric properties of coaching efficacy scale (CES) a study on Turkish coaches. *New World Science Academy*, 4(2), 143-153
- [21] Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman
- [22] Lee, K. S., Maleté, L., & Feltz, D. L. (2002). The strength of coaching efficacy between certified and noncertified Singapore coaches. *International Journal of Applied Sports Sciences*, 14, 1, 55-67.
- [23] Millard, L. (1996). Differences in coaching behaviors of male and female high school soccer coaches. *Journal of Sport Behavior*, 19(1), 19-31.
- [24] Alfermann, D., Lee, M.J., & Würth, S. (2005). Perceived leadership behavior and motivational climate as antecedents of adolescent athletes' skill development. *The Online Journal of Sport Psychology*, 7(2), 14-36.
- [25] Hagemann, N., Strauss, B. & Büsch, D. (2008). The complex problem solving competence of team coaches. *Psychology of Sport Exercise*, 9(3), 301-317.
- [26] Everhart, C.B., & Chelladurai, P. (1998). Gender differences in preferences for coaching as an occupation: The role of self efficacy, valence and perceived barriers. *Research Quarterly for Exercise and Sport*, 69(2), 188-200.
- [27] Barber, H. (1998). Examining gender differences in sources and levels of perceived in interscholastic coaches. *The Sport Psychologist*, 12(3), 237-252.
- [28] Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth sport coaches learn to coach. *The Sport Psychologist*, 21(2), 191-209.
- [29] Feltz, D.L., Hepler, T., Roman, N., & Paiement, C. (2007). Coaching efficacy and volunteer youth sport coaches. *The Sport Psychologist* 23(1), 24-41.
- [30] El-Komsan, W.M.R.A., & El-Gebaly, T.O.A. (2010). Time management of the training process and its relationship to the quality of decision-making to coaches of some individual and team sport. *World Journal of Sport Sciences*, 3(2), 90-99.
- [31] Schunk, D.H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology*, 7(2), 112-137.
- [32] Morris, T. (2000). Psychological characteristics and talent identification in soccer. *Journal of Sports Sciences*, 18(9), 715-726.
- [33] Unlu, H., Collective efficacy of physical education teachers. *Energy Education Science and Technology Part B-Social and Educational Studies*, 2012, 4 (2), 1053-1060.