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ORIGINAL ARTICLE

In Search of Connection Between the Leadership Types and Problem-Solving Techniques and Skills of Football Coaches

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Abstract

The sample of this study was composed of coaches (n=978) registered with Trabzon Province Turkey Football Coaches Association (TUFAD), and the sample of the study consisted of voluntary coaches (n=198). The questionnaire technique was used as the data collection method. Leadership and problem-solving skill scales were administered to the participants. A significant relationship was found between leadership behaviours in sports and problem-solving skills (R=.588, R2=.345; p<.001). It was determined that with standardized regression coefficients (β)=.588; t=.4,878; p=.000, leadership behaviour in sports positively affected problem-solving skills, and that it explained 34.5% of the total variance. It was determined that there were positive and weak, moderate, and high relationships between football coaches' leadership behaviours and problem-solving skills levels and that coaches' leadership behaviour in sports approaches had a considerable effect on their problem-solving skills.

Introduction:

Football, which has become a social phenomenon in the social and historical process from past to present (Spaaij, 2008), has appealed to larger populations and entered into the field of study of more research over time. After the stages it has gone through, football has turned into a large industry in which there is high competition, and coaches, athletes, and managers have faced more than one sportive and administrative problem. In this process, the importance of coaches, who have assumed the responsibility of managing teams, has considerably increased (Besler, 2020). Today, the position and importance of football among other sports branches are quite high. A greater number of people than those who actively play football participate in football as spectators. Besides, with many employees working in this area, football has become an industry (Inal, 2004).

A coach is the person who helps athletes to reach their maximum performance, supports athletes in terms of developing their mental, sensory, social, and physical competence and reaching their targets, makes use of scientific methods in the training process as well, has completed his/her education specific to the field, and carries out sportive works (Türksoy, 2010). Coaches, who positively influence athletes to achieve their targets in various branches, are individuals who continuously develop their competencies, carry out current works, learn from their mistakes and deficiencies, are responsible, have strong knowledge experience, and have leadership characteristics (Krause & Ralph, 2002; Canpolat *et al.*, 2018).

Leadership is a phenomenon that people voluntarily accept to meet their demands and needs, and is established in a mutually influential manner. As a matter of fact, it is a positive cycle that people under influence create with their leader (Bhatti *et al.*, 2012).

Generally, leadership is described as an individual's process of influencing other members of the team in order to direct the attitude and behaviors of a team moving towards a common goal. When the literature is reviewed, although there are many definitions of leadership, the common point among these definitions is "influencing" and "directing" (Orhan, 2012). We can define leadership as the power to influence other members of the team and contribute to success.

Within the context of personality characteristics, we can define leadership as the power within the individual, the power to make a decision and realize it, influencing group members, managing members, keeping members

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together, the power to change the rules of the existing order, and changing the system, and communication process between people (Sisman, 2018; Morgan *et al.,* 2011). Accordingly, in the process, leaders are confronted with a variety of internal and external institutional problems and struggle against them. Problem is a situation of hardship people are faced with. In order for an issue to be seen as a problem, that issue must bother the individual, and the individual must feel a wish and a desire to overcome the problem. Problem-solving is to diagnose and analyze a situation that requires accepting a decision, to determine and analyze alternatives, discerning another alternative, applying it, and evaluating the result (Çelik & Yurdakul, 2009).

Coaches are role models who contribute to the athlete not only in terms of technical, tactical, and performance development but also psychological and social development (Paydas, 2019). Therefore, it is seen as an important issue in sports for coaches or physical education teachers to train athletes as leaders who can respond to current conditions and as individuals with problem-solving skills (Canpolat, 2020). In fact, the direction and level of the connection between leadership and problem-solving techniques and skills of coaches, who contribute to the football players' physical, mental, social, and behavioral development arouse curiosity. There is a positive relationship between the leadership behaviors of football coaches and their problem-solving ability. The study aimed to evaluate the relationship between the leadership behaviors of football coaches and their problem-solving skills.

Materials and Methods:

Purpose of the research and hypothesis: The study aimed to evaluate the relationship between the leadership behaviors of football coaches and their problem-solving skills. There is a positive relationship between the leadership behaviors of football coaches and their problem-solving ability.

The research has a quantitative relational screening model. A relational screening model can be described as "a research model that aims to determine the existence and/or degree of change in conjunction between two or more variables" (Karasar, 2017).

In line with the purpose of the study, the sample of this study was composed of coaches (n=978) registered with Trabzon Province Turkey Football Coaches Association (TUFAD), and the sample of the study consisted of voluntary coaches (n=198), who were determined with convenient random sampling method (Yazicioglu & Erdogan, 2017), in which all coaches have an equal and random chance of being included in the sample, and which enables the results of the study to be revealed fast and easily. After the participants were informed about the study, coaches in this study were carried out on the basis of volunteerism.

The descriptive characteristics form prepared by the researcher contains 6 questions regarding participants' age, marital status, educational level, professional experience, place of residence, and coaching license level. In order to determine the leadership styles of the coaches, "Leadership Scale for Sport", which was developed by Chelladurai & Saleh (1980) and adapted to Turkish by Toros & Tiryaki (2006), comprising 40 items and 5 subdimensions was used. The items in the scale express leader behaviors perceived by coaches. The scale is made up of training and instruction dimension (Items 1, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35 and 38), democratic behavior dimension (Items 2, 9, 15, 18, 21, 24, 30, 33 and 39), autocratic behaviour dimension (Items 6, 12, 27, 34 and 40), social support dimension (Items 3, 7, 13, 19, 22, 25, 31 and 36), and positive feedback dimension (Items 4, 10, 16, 28 and 37). Toros & Tiryaki reported the internal consistency coefficients of the scale as.80 for training and instruction dimension, .79 for democratic behavior dimension, .41 for autocratic behavior dimension, .75 for social support dimension, and .60 for positive feedback dimension. The scale is a 5-point Likert-type scale. In order to evaluate the coaches' problem-solving skills, "Problem Solving Inventory Form-A" (PSI-A) was developed by Heppner *et al.,* (1982) and adapted to Turkish by Sahin *et al.,* (1993) was used. The high scores obtained on the scale indicate that the individual perceives himself/herself as inadequate in problem-solving skills (Sahin *et al.,* 1993). The item choices of the scale are (1) I always behave that way, (2) I mostly behave that way, (3) I often behave that way, (4) I sometimes behave that way, (5) I rarely behave that way, and (6) I never behave that way. Items 9, 22, and 29 were excluded from scoring. Items 1, 2, 3, 4, 11, 13, 14, 15, 17, 21, 25, 26, 30, and 34 are coded reversely. The lowest score that can be obtained from the scale is 32, and the highest score is 192. The scale consists of six subdimensions as "hotheaded approach" (Items 13, 14, 15, 17, 21, 25, 26, 30 and 32, =0.78), "deliberative approach" (Items 18, 20, 31, 33 and 35,, =0.76), "avoidant approach" (Items 1, 2, 3 and 4, = 0.74), "evaluative approach" (Items 6, 7 and 8, =0.69), "self-confident approach" (Items 5, 11, 23, 24, 27, 28 and 34, =0.64) and "planful approach" (Items 10, 12, 16 and 19, =0.59) (Sahin *et al.*, 1993).

The data of the study were analyzed using IBM SPSS 25.00 package software. Skewness and kurtosis values were investigated in order to determine whether research data showed normal distribution. Skewness and kurtosis coefficients obtained as a result of the analysis were found in the range of ±2. These values being in the range of ±1 is interpreted as the absence of excessive deviations from normality (Büyüköztürk, 2007). In yet another study, George & Mellery (2016) interpreted the values being in the range of ±2 as an absence of excessive deviations from normality. In line with this information, it was accepted that the distribution was in a normal range for all

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dimensions. Personal information about football coaches, subdimensions of the scales, and total scores were presented as frequency (f) and percentage (%) values. Pearson Product-Moment Correlation analysis (r) and regression analysis were performed in order to reveal the relationship between the scores obtained from the scales.

Results:

Table 1. Skewness-Kurtosis and Kolmogorov-Smirnov Test Significance Level Results of Scale Scores

Variable	N	Skew-ness	Kurto-sis	p
Training and Instruction Behavior	198	-.795	1.071	.000
Democratic Behavior	198	.479	.437	.000
Autocratic Behavior	198	.253	-.594	.000
Social Support	198	-.628	.271	.000
Positive Feedback	198	-.499	-.133	.000
Leadership General	198	.010	-.378	.000
Hotheaded Approach	198	-.024	.569	.000
Deliberative Approach	198	-1.277	1.236	.000
Avoidant Approach	198	-1.228	1.349	.000
Evaluative Approach	198	-.933	.867	.000
Self-confident Approach	198	-1.016	.546	.000
Planful Approach	198	-1.507	1.466	.000
Problem-Solving General	198	-.719	.485	.000

In Table-1, the normality was achieved in the scores obtained from the Leadership Scale for Sport subdimensions, Problem-Solving Inventory subdimensions, and general scores. Kolmogorov-Smirnov analysis is just one of the methods that are used in order to determined normality distribution. When normality distribution curves were examined, no excessive deviation from normality was detected. While Buyukozturk (2007), consider kurtosis and skewness values of variables being in the ±1 range as the absence of excessive deviations from normality, Tabachnick & Fidel (2013) stated that kurtosis and skewness values of variables being in the ±1.5 range show a normal distribution of the data. George & Mellery (2016), on the other hand, interpreted the values being in the range of ±2 as an absence of excessive deviations from normality. In line with this information, it was accepted that the distribution was in a normal range for all dimensions. It was determined that there were no excessive deviations from normality regarding the scale scores, that the coefficients were within the range of ±1 and ±1.5, and that the data showed a normal distribution.

When the direction and level of the relationship between Leadership Scale for Sports and Problem-solving Inventory and their subdimensions were examined (Table-2), a weak and positive relationship was observed between the training and instruction dimension of Leadership Scale for Sport and the hotheaded approach dimension of Problem-Solving Inventory, deliberative approach dimension, evaluative approach dimension, and a moderate and positive relationship was determined between training and instruction dimension and avoidant approach dimension, self-confident approach dimension, planful approach. Also, a strong and positive relationship was identified between the training and instruction dimension and Problem-Solving Inventory total score. A weak and positive relationship between the democratic behaviour dimension of the Leadership Scale for Sport and the evaluative approach dimension was observed. A weak and positive relationship was determined between the training and instruction dimension of Leadership for Sport Scale and hotheaded approach dimension, avoidant approach dimension, evaluative approach dimension, self-confident approach dimension, planful approach dimension, and Problem-Solving Inventory total score. While a weak and positive relationship was observed between the positive feedback dimension of Leadership Scale for Sports and hotheaded approach dimension, avoidant approach dimension, evaluative approach dimension, self-confident approach dimension planful approach dimension, a moderate and positive relationship was determined between positive feedback dimension and Problem -Solving Inventory total score. A moderate and positive relationship was determined between the total score of Leadership Scale for Sport and hotheaded approach dimension, deliberative approach dimension, avoidant approach dimension, evaluative approach dimension, self-confident approach dimension, planful approach and the total score of Problem -Solving Inventory.

Table-2: The Relationship Between Leadership Behaviors in Sport and Problem-Solving Skills

		A	B	C	D	E	F	G
Training & Instruction	r	.221	.261	.326	.164	.439	.448	.650
	p	.000**	.000**	.000**	.000**	.000**	.000**	.000**
Democratic-Behavior	r	-.031	.026	-.069	.229	-.036	.007	.008
	p	.662	.717	.334	.001*	.617	.925	.907
Autocratic-Behaviour	r	-.100	-.199	.172	.000	-.163	-.068	-.169
	p	.161	.105	.015	.996	.122	.344	.118
Social-Support	r	.151	-.014	.197	.146	.153	.149	.279
	p	.013*	.842	.005*	.040*	.032*	.036*	.002*
Positive Feedback	r	.248	.127	.167	.266	.231	.257	.499
	p	.000**	.075	.018*	.000**	.001*	.000**	.000**
Leadership-General	r	.524	.458	.558	.545	.439	.462	.588
	p	.000**	.000**	.000**	.000**	.000**	.000**	.000**

A-Hotheaded Approach; B-Deliberative Approach; C-Avoidant Approach; D-Evaluative Approach; E-Self-confident Approach; F-Planful Approach; G- Problem-Solving General.

While applying the Regression Analysis for the outcome of Problem-Solving Skills, a significant relationship was seen between leadership behaviours in sport and problem-solving skills (R=.588, R2=.345; p<.001). With standardized regression coefficients (β)=.588; t=4,878; p=.000, it was determined that leadership behaviour in sport positively affects problem-solving skills. The R 2 =.345 value determined as a result of statistical analysis revealed that leadership behaviour in sport

predicts problem-solving skills and that it explains 34.5% of the total variance. In other words, leadership behaviour in the sport approaches of the participants has a considerable effect on their problem-solving skills. According to analysis data, VIF<5 shows that there was no multicollinearity problem, and Durbin Watson value being around 2 indicates that there is no auto-correlation between error terms (Gürbüz & Şahin, 2018).

Discussion:

There was a positively weak and moderate relationship between leadership behaviors and problem-solving skills levels of football coaches included in the study group. Also, a strong and positive relationship exists between the training and instruction dimension of the Leadership Scale for Sport and Problem-Solving Inventory total score. To express it in general terms, perceptions of football coaches regarding leadership behavior and their problem-solving skills show a development in the same direction. In a similar study, Paydas (2019) reported that there was a moderate and significant relationship between the subdimensions of Leadership Scale for Sport and those of Problem-Solving Inventory, and that leadership behaviors and problem-solving variables explained each other at a very low level.

In a study conducted by Yilmaz (2016) on human resources managers as a different sample group, the relationship between leadership style variable and creative problem-solving capacity was found to be positive and significant.

It is seen that leadership behavior in sport affects problem-solving skills and that it explains 34.5% of the total variance. In other words, leadership behavior in sport approaches of the participants has a considerable effect on their problem-solving skills. In a study he conducted on coaches, Paydas (2019) reported that the subdimensions of Leadership Scale for Sport significantly affected the subdimensions of the Problem-Solving Inventory.

It was determined that there were positive and weak, moderate, and high relationships between football coaches' leadership behaviors and problem-solving skills levels and that coaches' leadership behavior in sports approaches had a considerable effect on their problem-solving skills.

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