Original Article

Evaluation of coaches and differences of perspective due to demographic characteristics

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Abstract:

The purpose of this study was to examine any discrepancies in coaches' perspectives concerning the evaluation of the coaching process that can be attributed to demographic characteristics. The Scale of Coaching Performance (SCP) was adopted after being adjusted to Greek reality. Data collection took place via questionnaires from a purposive sample of 320 coaches from Greek basketball clubs. The multivariate analysis of variance (MANOVA) and one way analysis of variance (ANOVA) that were employed did not reveal statistically significant differences, except for the coaches' educational level. Results came in agreement with previous studies which took place in Canada and the USA.

Keywords: basketball club coaches, coaching evaluation, coaching performance, SCP.

Introduction

The Scale of Coaching Performance (SCP) (MacLean & Chelladurai, 1995) is an evaluation model of coaching performance, that was constructed in Canada for college basketball coaches and has been tested in several countries and populations ever since (Chen, 2003; MacLean & Zakrajsek, 1996; Papailiou, Kipreos, Travlos, & Strigas, 2015a; Surujlal, Singh, & MacLean, 2009). The adapted version of the specific model in Greece was used in the present study, to examine possible differences in the coaches' perspectives based on their demographic characteristics. Previous studies have shown no differences in the perspectives of the participants due to their gender, years of coaching experience (MacLean & Zakrajsek, 1996) and level of coaching experience. (Chen, Jensen, & Mann, 2004).

Review

The sports literature presents several articles that evaluate coaching performance and describe the coaching process. Specifically, many reports focus on the description of successful coaches (Eoppep, 2014; Lyle, 2002), the construction of observation systems (Cushion, Harve, Muir, & Nelson, 2012), theoretical models of the coaching process (Lyle, 2002; MacLean & Chelladurai, 1995) and generally the contribution of coaching evaluation to coaches' improvement and development (Kaprinis, Kipreos, Vrontdou, & Kakkos 2013). And while results lack in practical implementation (Jones, Armour, & Portac, 2004), the view that prevails is that the evaluation of coaches and the coaching process is limited to country and sport, and conclusions cannot be reliably expanded in different populations (Freitas, Dias, & Fonseca, 2013; Lyle, 2002). The British National Institution of coaching points out that demands on coaches are differentiated depending on the different needs of athletes and the different coaching environment (North, 2009). Even regarding the same sport, coaches differentiate their practices during a season (Cushion, et al., 2012), while in the same training session, coaches may implement different methodologies and behaviors (Pereira, Mesquita, & Graça, 2009). In this light, the primary purpose of this study was to investigate if due to demographic characteristics, there were any differences in the coaches' perspectives regarding the evaluation of the coaching process. An additional objective of this study was to explore if the results in Greece were consistent with those of similar surveys that have taken place in Canada and the USA.

Method

In this study, coaching performance was evaluated with the help of the SCP model (MacLean & Chelladurai, 1995), as amended and adjusted to the Greek sports system (Papailiou, et al., 2015a). This modified model consisted of 25 criteria included in four (4) factors which measure the coaching process: (α) Team Products; (b) Personal Products; (c) Direct Task Behaviors and (d) Indirect Task Behaviors. The questionnaire

employed was based on a 5-point multiple rating list, whereas its reliability and validity have been tested and confirmed (Papailiou, et al., 2015a).

Participants

The present study focused on basketball coaches. Questionnaires were personally distributed by the researchers, to a purposive sample of 320 basketball club coaches. Coaching experience of at least five years in a competitive category was a prerequisite for participation in the survey. The survey involved 288 male (90.3%) and 32 female (9.7%) coaches. Their mean age was 37.07 years (min = 21, max = 60, SD = 7.27) and their coaching experience 11.37 years (min = 5, max = 40, SD = 6.31). Of the total population, 106 (33.9%) coaches stated that they held a degree in Physical Education Studies, while 207 (66.1%) did not, 103 (33.1%) had previous experience in education, while 208 (66.9%) did not and 284 (89.3%) stated they were active coaches, while 34 (10.7%) stated that they were inactive. Furthermore, as for the highest level of coaching experience, 55 (17.4%) coaches presented highest coaching experience at the clubs' basketball academies, 21 (6.6%) coaches at the women's local leagues, 126 (39.6%) coaches at the men's local leagues, 42 (13.2%) coaches at the men's national divisions, 19 (6.0%) coaches at the women's second professional league, 14 (4.4%) coaches at the men's second professional league, 24 (7.5%) coaches at the women's first professional league and 15 (4.7%) coaches at the men's first professional league. Finally, 52 (16.4%) coaches held a high school degree, 38 (11.9%) coaches were graduates of Greek Vocational Training Institutes (V.T.I.), 49 (15.4%) coaches were graduates of Greek Technological Institutes, 113 (35.5%) coaches were university graduates, while 51 (16.0%) coaches held master's and doctoral degrees.

Data Analysis

The Multivariate Analysis of Variance (MANOVA) is recommended as the most appropriate method when seeking the influence of independent variables on more than one dependent variable (Tabachnick & Fidell, 2013). The independent variables in this study were age, gender, a physical education degree, teaching experience, educational level, league of coaching experience, the overall coaching experience and whether the coach was active or not. The dependent variables were the four factors of the questionnaire, namely: (a) Team Products, (b) Personal Products, (c) Direct Task Behaviors, and (d) Indirect Task Behaviors. Furthermore, factors (a) and (b) as well as (c) and (d) fell into the categories of "Products" and "Task Behaviors" respectively, which were examined as separate dependent variables. Finally, it was confirmed, that the study met the conditions for using MANOVA and ANOVA through the Levene and Box tests.

Whenever a MANOVA test result was statistically significant, separate ANOVAs were conducted in order to pinpoint in which factor differences laid. Each ANOVA was evaluated at the .05 level of significance. Finally, for every statistically significant ANOVA, post hoc pairwise comparisons were conducted, checked at the .05 level of significance to the number of statistically significant ANOVAs (Levin, Serlin & Seaman, 1994). This technique was selected due to its greater power, compared to the traditional Bonferonni method.

Results

The results of the multivariate analysis of variance concerning the four factors of the questionnaire, did not show statistically significant differences at the $p < .05$ level between male and female coaches (Wilks' $\Lambda = .993$, $F(4,313) = .53$, $p < .711$), between coaches of different ages (Wilks' $\Lambda = .970$, $F(8,608) = 1.19$, $p < .305$), between coaches who had a degree in physical education and coaches who did not have one (Wilks' $\Lambda = .987$, $F(4,308) = 1.04$, $p < .384$), between coaches with and without teaching experience (Wilks' $\Lambda = .993$, $F(4,306) = .54$, $p < .70$), between coaches with experience at different leagues (Wilks' $\Lambda = .884$, $F(28,1101) = 1.37$, $p < .097$), between active and inactive coaches (Wilks' $\Lambda = .975$, $F(4,313) = 2.01$, $p < .09$) and between coaches with different overall previous experience (Wilks' $\Lambda = .957$, $F(8,624) = 1.71$, $p < .089$). In contrast, MANOVA test showed statistically significant differences between coaches with different educational level at the $p < .05$ level (Wilks' $\Lambda = .944$, $F(20,1026) = 1.61$, $p < .043$, $\eta^2_p = .90$). Next, the ANOVA tests presented statistically significant differences at the $p < .05$ level for the factors "Indirect Coaching Behaviours" ($F(5,312) = 3.60$, $p < .004$, $\eta^2_p = .92$), "Direct Coaching Behaviours" ($F(5,312) = 2.78$, $p < .018$, $\eta^2_p = .83$) and "Team Results" ($F(5,312) = 3.80$, $p < .002$, $\eta^2_p = .94$). Finally, five pairwise comparisons showed statistically significant differences at the $p < .017$ level. Specifically, coaches holding a PhD degree evaluated "Team Results" statistically less important compared to V.T.I. graduates as well as "Indirect Coaching Behavior" and "Direct Coaching Behavior" statistically less important compared to V.T.I. and MSc graduates. The means (M) and the standard deviations (SD) of coaching process evaluation factors between coaches with different educational level are presented in Table 1.

Likewise, the results of the MANOVA test concerning the two grouped factors of the questionnaire, showed no statistically significant differences at the $p < .05$ level between male and female coaches (Wilks' $\Lambda = .993$, $F(2,315) = 1.04$, $p < .36$), between coaches of different ages (Wilks' $\Lambda = .992$, $F(4,612) = .60$, $p < .662$), between coaches who had a degree in physical education and coaches who did not have one (Wilks' $\Lambda = .987$, $F(2,310) = 2.06$, $p < .13$), between coaches with and without teaching experience (Wilks' $\Lambda = .994$, $F(2,308) =$

.97, $p < .38$ between coaches with experience at different leagues (Wilks' $\Lambda = .951$, $F(14,614) = 1.13$, $p < .33$), between active and inactive coaches (Wilks' $\Lambda = .984$, $F(2,315) = 2.56$, $p < .079$) and between coaches with different overall previous experience (Wilks' $\Lambda = .978$, $F(4,628) = 1.72$, $p < .143$). On the contrary, the MANOVA test showed statistically significant differences between coaches of different educational level at the $p < .05$ level (Wilks' $\Lambda = .916$, $F(10,622) = 2.79$, $p < .002$, $\eta_p^2 = .97$). Next, the ANOVA tests showed statistically significant differences at the $p < .05$ level, regarding the factors "Team Results" ($F(5,312) = 3.58$, $p < .004$, $\eta_p^2 = .92$) and "Task Behaviors" ($F(5,312) = 4.37$, $p < .001$, $\eta_p^2 = .97$). Finally, seven pairwise comparisons showed statistically significant differences at the $p < .025$ level. In particular, coaches holding a PhD degree evaluated "Team Results" statistically less important compared to V.T.I. graduates as well as "Task Behaviors" statistically less important compared to all other categories of participants. The means (M) and the standard deviations (SD) of the two grouped evaluation factors of coaches' performance between coaches of different educational level are presented in Table 2.

Table 1. Means (M) and standard deviations (SD) of coaching process evaluation factors between coaches with different educational level.

Descriptive Statistics				
	Educational Background	Mean	SD	N
Team Products	High School	3,27	,81	52
	Vocational Training Institute	3,57	,70	38
	Technological Educational Institute	3,18	,76	49
	B.Sc.	3,20	,68	113
	M.Sc.	3,33	,71	51
	Ph.D.	2,64	,98	15
	Total	3,25	,75	318
Personal Products	High School	3,11	,98	52
	Vocational Training Institute	3,29	,92	38
	Technological Educational Institute	3,11	1,00	49
	B.Sc.	2,97	,99	113
	M.Sc.	3,12	,96	51
	Ph.D.	2,50	,87	15
	Total	3,06	,98	318
Indirect Task Behaviours	High School	3,52	,78	52
	Vocational Training Institute	3,71	,60	38
	Technological Educational Institute	3,37	,74	49
	B.Sc.	3,44	,70	113
	M.Sc.	3,62	,71	51
	Ph.D.	2,87	,93	15
	Total	3,48	,74	318
Direct Task Behaviours	High School	4,32	,77	52
	Vocational Training Institute	4,46	,39	38
	Technological Educational Institute	4,37	,61	49
	B.Sc.	4,33	,70	113
	M.Sc.	4,45	,36	51
	Ph.D.	3,77	1,28	15
	Total	4,34	,67	318

Table 2. Means (M) and standard deviations (SD) of the two grouped evaluation factors of coaches' performance between coaches of different educational level.

Descriptive Statistics				
	Educational Background	Mean	Std. Deviation	N
Team Products	High School	3,19	,76	52
	Vocational Training Institute	3,43	,64	38
	Technological Educational Institute	3,15	,70	49
	B.Sc.	3,09	,68	113
	M.Sc.	3,23	,70	51
	Ph.D.	2,57	,84	15
	Total	3,15	,72	318
Task Behaviours	High School	3,92	,70	52
	Vocational Training Institute	4,09	,42	38
	Technological Educational Institute	3,87	,54	49
	B.Sc.	3,89	,56	113
	M.Sc.	4,03	,43	51
	Ph.D.	3,32	1,05	15
	Total	3,91	,60	318

Discussion

This study evaluated the possible discrepancies of the participants' perspectives, based on their demographic characteristics. Results showed that the independent variable which affects statistically significantly the coaches' evaluation factors is educational level. Coaches holding a Ph.D. recorded the lower evaluation regarding the importance of criteria in coach evaluation. In particular, the perspectives of Ph.D. coaches were found statistically significantly lower compared to the perspectives of V.T.I. graduate coaches regarding the factor "Team Products" and also statistically significantly lower compared to the perspectives of V.T.I. and M.Sc. graduates regarding the factors "Direct Coaching Behaviors" and "Indirect Coaching Behaviors". Moreover, coaches holding a doctoral degree, evaluated "Team Products" statistically significantly lower compared to V.T.I. graduate coaches and "Task Behaviors" statistically significantly lower compared to coaches of all the other educational levels. It is likely that the doctoral specialization leads coaches to minimize the importance of "Team Products" and "Task Behaviors" factors in the evaluation of the coaching process, in favor of other factors such as team's internal and external environmental influences (Papailiou, Strigas, Travlos, & Kipreos, 2015; Papailiou, Kipreos, Travlos, & Strigas, 2015b). On the other hand, the differentiation of coaches based on age, gender, physical education degree, teaching experience, the level of coaching experience, whether the coach is active or not, and the total years of coaching experience did not reveal any statistically significant differences.

Conclusion

The results are not so strong to claim that demographic characteristics have a decisive role in the evaluation of coaching performance by coaches. Results came into agreement with Perrea et al. (2013) and with MacLean & Zakrajsek (1996). Specifically, MacLean & Zakrajsek (1996) applied the SCP to Canadian college coaches and they also did not find significant differences regarding gender, sport, employment status or coaching experience regarding coaches' perspectives. Similarly, Chen, Jensen and Mann (2004) did not find divisional differences among NCAA coaches in their beliefs on coaching performance. MacLean and Zakrajsek (1996) also refer to older studies of performance evaluation that showed minimum effects of gender but also a positive effect of experience. Finally, the agreement of coaches with or without teaching experience, confirms the bibliography which highlights the common characteristics between coaching and teaching physical education (Hammond & Perry, 2005), regarding evaluation methods and the effect of the social-cultural frame in which they are evolving (Bakker et al., 2011).

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