

Influence of Playing Experience and Coaching Education on Coaching Efficacy among Malaysian Youth Coaches

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Abstract: *Introduction:* Coaches have the responsibility in guiding the athletes to be successful in their sports performance by helping them to improve their skills. One of the factors that may influence athletes to perform at their optimal level is their beliefs in their coaches ability to guide them during training and competition. Factors such as playing experience and coaching education/course may play a part in the ability of coaches in guiding their athletes. Therefore, the purpose of this study was to identify the relationship between coaches' level of playing experience and coaching courses attended with coaching efficacy among Malaysian youth coaches. *Methods:* A total of 323 coaches who coached in SUKMA 2012 (sports event that involved young athletes between the age 19 to 21 years old) were selected through purposive sampling participated in this study. Coaching Efficacy Scale (CES) questionnaire was used to measure the coaches coaching efficacy. *Results:* Overall, Malaysian youth coaches showed that their level of coaching efficacy were high for all the subscales namely character building ($M = 7.97$, $SD = .64$), motivation ($M = 7.91$, $SD = .58$), technique ($M = 7.91$, $SD = .64$) and game strategy ($M = 7.84$, $SD = .60$). Furthermore, coaches who have played for high level such as at national level showed that they were skilful in motivating their athletes ($p < .05$) and in inculcating positive attitude towards their athletes character building ($p < .05$). Similarly, coaches who have attended higher level of coaching courses showed that they have the ability to motivate their athletes during competition ($p < .05$). In addition, multiple regression showed that both level of coaching courses attended and level of playing experience can predict the overall coaching efficacy ($F(6, 316) = 14.76$, $p < 0.001$). *Conclusion:* In conclusion, coaches who have higher level for both playing experience and coaching course may demonstrate better coaching efficacy in guiding their athletes and hence are able to lead their athletes to a successful performance.

Key words: Coaching efficacy • SUKMA • Coaching course

INTRODUCTION

In recent years, many studies have been conducted to study on coaches abilities in coaching and have expanded the knowledge and information regarding the coach's responsibility and abilities. Coaches play an important role in sport as they are responsible for teaching basic aspects of games. Furthermore, coaches not only have a significant impact on the psychosocial development of young athletes, but they also influence the children's experience in sport development. Past study stated that coaches have the responsibility in guiding the athletes to perform successfully in their

sports performance by improving the athletes' basic skills preparations which related to their physical, technical, tactical and psychological [1, 2]. They were also being referred as the role models and mentors for the youth athletes. One of the key elements to be a successful coach is through their own perception of their ability to lead the athletes through the competitive experience and the belief in one's personal ability is known as self-efficacy [3].

Based on past studies, when the term "efficacy" used together with a behavior, it would indicate the strength of confidence in acting out that action with efficiency such as in the term of "coaching efficacy", it shows a coaches' belief that he or she can successfully carry out the duties

expected efficiently [3, 4]. Furthermore in their study, they reported that it may have a detrimental effect on athletes' performance if a coach has a low level of self-efficacy. Conversely, if the coach has high self-efficacy, it may help in influencing on his or her own performance, as well as the athletes' performance during training and competition. Past study also has shown that athletes were also more confident in themselves and their teams when they believed their coach was a confident leader [5]. There were also numerous studies on coaches' level of coaching efficacy in various sports environments [3, 6]. Throughout these studies, there were many factors revealed that may affect the coaches' level of coaching efficacy.

Based on study by Sullivan and Malete [7], coaching efficacy can be divide into four type of subscales which are motivation efficacy, technique efficacy, game strategy efficacy and character building efficacy. Motivation efficacy can be defined as the coaches' confident in their ability to influence his or her athletes' psychological states and skills. Technique efficacy is referring to the coach's believe on his or her ability to teach skills and to diagnose and correct the error made by the athletes. The third subscale which is game strategy efficacy is representing the coach's believe in leading the athletes to perform successfully during competition while for the last subscale which is character building efficacy, it involve with the coach's ability to affect the athlete's attitudes such as sportspersonship and positive attitudes.

Many factors can affect coaches' coaching efficacy such as their playing experience and coaching courses attended. In Malaysia, there are three levels (Level 1; beginner, Level 2; intermediate, Level 3; advance) of coaching courses conducted by the National Coaching Licensing Board that can be attended by all sports coaches (Malaysian Sport Council, 2008). This program besides serving as a national standard for the recognition of coaching qualifications, it also provides a systematic coaching education program with purpose of improving the knowledge and skills required by sport coaches. This program has three basic components which are sports science, specific sports coaching and practical components. Every coach who attends this course must go through all the components before they can be certified. Although there were many studies that measure on coaching efficacy, most of these studies were completed in western context. There is limited information on the coaching efficacy among Malaysian coaches

particularly in youth sport. Therefore, this study has been conducted to gather more information with regard to Malaysian youth coaches and their coaching efficacy.

Purpose of the Study: The purpose of this study was to identify the relationship between playing experience and level of coaching course attended with coaching efficacy among Malaysian SUKMA 2012 coaches.

MATERIALS AND METHODS

A total of 323 coaches from 14 states who coached in Sukan Malaysia (SUKMA) 2012 volunteered to serve as participants in the study. These participants were selected through a purposive sampling comprising from both individual and team sports (athletics, aquatic, weightlifting, badminton, gymnastic, hockey, lawn ball, archery, squash, tenpin bowling, sepak takraw, volleyball, golf, petanque, equestrian and boxing). Coaching Efficacy Scale, or CES [3] questionnaire were used to measure their coaching efficacy. The reliability for CES questionnaire in this study is 0.91.

RESULTS

The following analyses were based on the result from social science statistical package version 17. Descriptive analysis such as frequencies and percentages were calculated to demonstrate the characteristics of coaches. Table 1 shows that from all respondents, 74.6% (n=241) of them are male and 25.4% (n=82) are female. Furthermore, majority of the coaches were above 45 years old (26.3%; n=85) while the minority is between 31 to 35 years old (12.7%; n=41).

Table 1: Gender Ages and Marital Status of SUKMA 2012 Coaches.

Coaches Characteristics	Number of coaches (N = 323)	Percentage (%)
Gender		
Male	241	74.6
Female	82	25.4
Age (Years)		
<30	50	15.5
31-35	41	12.7
36-40	71	22.0
41-45	76	23.5
>45	85	26.3
Marital Status		
Single	90	27.9
Married	233	72.1

Table 2: Coaches playing and level of participation and level of coaching course attended.

Coaches Characteristics	Number of coaches(N = 323)	Percentage (%)
Playing and Level of Participation		
Did Not Have Experienced In Playing	20	6.2
School Level	37	11.5
State Level	181	56.0
National Level	85	26.3
Level of Coaching Course Attended		
Did Not Attend For Coaching Courses	59	18.3
Beginner	96	29.7
Intermediate	114	35.3
Advance 54	16.7	

Table 3: Means and standard deviations of coaching efficacy scores

Scores	M	SD
Motivation efficacy	7.91	0.58
Technique efficacy	7.91	0.64
Game strategy efficacy	7.84	0.60
Character building efficacy	7.97	0.64
Total efficacy	7.91	0.56

Majority of coaches (93.8%; $n = 303$) have experienced in playing the sports that they coached in SUKMA 2012 event while only 6.2% ($n = 20$) did not have playing experience in playing the sports that they coached in SUKMA 2012 event. From the total of coaches who have experience in playing, 56.0% ($n = 181$) of them play at state level, 11.5% ($n = 37$) for school level and 26.3% ($n = 85$) for national level. Furthermore the findings showed that 81.7% ($n = 264$) of the respondents have attended the coaching courses while 18.3% ($n = 59$) of them have not attended Malaysian Sport Council coaching course program. From the total of coaches who have attended the coaching courses, 29.7% ($n = 96$) coaches have beginner level, 35.3% ($n = 114$) coaches have intermediate level and 16.7% ($n = 54$) coaches have advance level of coaching course. These results are indicated in Table 2.

Table 3 presented the means and standard deviations of each subscale in CES questionnaire which is motivation, technique, game strategy and character building efficacy. The Game Strategy subscale showed the lowest mean score ($M = 7.84$, $SD = 0.60$) achieved by the coaches and it might indicate that Malaysian SUKMA 2012 coaches were less confident in making decisions with regard to strategies to be implemented during competitive games compared to other subscales. This also indicates that the coaches were less capable in maximizing athletes' potential in competitions and less efficacy in identifying the strengths and weaknesses of opponent teams. However, as shown in table 3, the coaches were

better in the other three subscales as reflected by the higher mean score on these three subscales which are motivation efficacy ($M = 7.91$, $SD = 0.58$), technique efficacy ($M = 7.91$, $SD = 0.64$) and character building efficacy ($M = 7.97$, $SD = 0.64$). These indicate the SUKMA 2012 coaches were more confident in handling task such as motivating their athletes, carrying out the instructional aspects of coaching and developing their athletes' characteristics respectively.

The SUKMA 2012 coaches were measured on the relationship between level of playing experience and the level of coaching course attended with overall coaching efficacy. Hierarchical multiple regression was conducted to assess the ability of two control measures (level of coaching courses attended, level of playing experience) to predict levels of coaching efficacy (CES). Maleté and Sullivan [7] indicated that coaching education appears to be a strong predictor of coaching efficacy while Feltz, Hepler, Roman and Paiement, [8] stated that playing experience was a robust predictor of coaching efficacy. Since the data were categorical in nature, dummy coding for variables were performed before conducting a multiple regression analysis. Preliminary analyses were conducted to ensure no violation of the assumption of normality, linearity, multicollinearity and homoscedasticity. In this study, coaches who never attended to any Malaysian Council coaching course act as reference category and being coded as 0 while coaches who attended various level of Malaysian Council coaching course coded as 1. Similarly for playing experience, coaches who do not have any playing experience in sport that they coached act as reference category and coded as 0 while coaches who have various level of playing experience in sport that they coached coded as 1. Level of coaching courses attended was entered at Step 1, explaining 20% (.20 x 100) of the variance in level of coaching efficacy. After entry of the level of playing experience at Step 2, the total variance explained by the model as a whole was 22%, $F(6, 316) = 14.76$, $p < 0.001$. The two control measures explained an additional 2% of the variance in CES. In the final model (step 2), there were five variables that have statistically significant contribution ($p < 0.05$) with the intermediate level of coaching course recording a higher beta value ($\beta = .55$, $p < .001$) than other variables.

Table 4 showed the variables that been included to predict Malaysian SUKMA 2012 coaches' coaching efficacy level. Coaches who have attended various level of Malaysian Sport Council coaching course program were compared with coaches who have never attended to

Table 4: Summary of Hierarchical Regression Analysis for Variables Predicting Level of Coaching Efficacy

Variable	B	SE B	β
Step 1			
Beginner ^a	.53	.08	.43*
Intermediate ^a	.65	.08	.55*
Advance ^a	.73	.10	.49*
Step 2			
Beginner ^a	.56	.08	.46*
Intermediate ^a	.64	.08	.55*
Advance ^a	.73	.10	.49*
School Level ^b	.05	.14	.03
State Level ^b	.24	.12	.21*
National Level ^b	.26	.13	.21*

Note. R² = .20 for Step 1; R² = .22 for Step 2 (p < .05)

a. Compared to coaches who not attending to coaching course

b. Compared to coaches who don't have any playing experience

B = Unstandardized Coefficient B; SE B = Standard Error; β = Beta

that program while for playing experience, coaches who have various level of playing experience were compared with coaches who do not have any playing experience in the sport they coached. Multiple regression analysis revealed that coaches who have beginner level of coaching course were on average .46 points higher in coaching efficacy than those coaches who have never attended any Malaysian Sport Council coaching course program. Coaches who have intermediate level of coaching course have coaching efficacy .55 point higher, on average, than coaches who have never attended any Malaysian Sport Council coaching course program. Coaches who have advance level of coaching course were on average .49 point higher in coaching efficacy compared to those coaches who have never attended any Malaysian Sport Council coaching course program. As for playing experience, coaches who have playing experience at school level have no significant difference in coaching efficacy with coaches who do not have any playing experience in sport they coached. However, coaches who have playing experience at state or national level were on average .21 point higher compared to coaches who do not have any playing experience in sport they coached.

DISCUSSION

There were many past studies that used CES developed by Feltz et. al [3] to measure the coach confident or efficacy level and most of the past studies measured the efficacy level of coaches from school and collegiate coaches. It measure the coaches' efficacy in carrying duties based on the four subscales of coaching tasks which are motivation, technique, game strategy and character building. Study by Sullivan and Gee [9] stated

that coaches who have a high degree of coaching efficacy gave more positive feedback. In addition, when compare to past studies by Fung [10] and Kavussanu *et al.* [11], the score for overall coaching efficacy among the Malaysian youth coaches were high (Malaysia: 7.91, Fung: 6.72, Kavussanu *et al.*: 7.24). From these review, Malaysian youth coaches shows that they have similar capability in coaching and have same potential as others coaches to be a successful coach. The Malaysian coaches believed that self-confidence in coaching is important to inspire athletes' performance during competition. Finding in this present study supported the study by Chiu, *et al.* [12] and Kuan and Roy [13] which indicated that Malaysian coaches were confident in their ability of handling coaching tasks. The level of coaching efficacy produced most positive outcomes and it was considered to be aligned with the difficulty tasks [7].

Even though the level of coaching efficacy among Malaysian SUKMA coaches is high as demonstrated in this study, however, in terms of coaching efficacy subscales, Malaysian SUKMA coaches have the lowest mean score in game strategy efficacy during competitive event. This finding was inconsistent with the study by Chiu, *et al.* [12] and Moen and Federici [14] in which they found that Malaysian coaches were competent in game strategy efficacy during competitive event. One possible reason that Malaysian SUKMA coaches have low mean score in game strategy efficacy might be due to a lack of real games and matches being organized to expose the coaches to the real competition environment and use their ability in making decision during competition. Furthermore, SUKMA event is organized only once every two years which gave little opportunity of exposure for coaches to guide their athletes in real game situations [15]. In addition, most of the youth athletes came from schools where most of the times they were being supervised by school coaches [16]. Therefore, Malaysian SUKMA coaches were only able to be with their athletes during centralized training before the event. Due to the short duration during centralized training, this resulted in a lack of contact between coaches and their athletes. Therefore, coaches have to look for other ways to improve their game strategy efficacy. For example, coaches have to organize more real competition or friendly matches so that they can practise their game strategies [17]. Additionally, lecture-type teaching in small group, discussion on video viewing on real match and learn from master coach or former coach are some of the possible strategies that can be used by the coaches to improve their game strategy efficacy.

The finding in this study also found that Malaysian SUKMA coaches have highest coaching efficacy in character building subscale as indicated by their mean score compared to other three subscales. This suggests that Malaysian SUKMA coaches were more inclined towards carrying out character building duties and were more efficacious in handling tasks of instilling positive attitude such as respect for others, fair play during competition and also instil good moral character [10] because the coaches believe inculcating positive attitude toward sport in their athletes will bring to successful performance.

Levels of coaching efficacy can be predicted by numerous factors such as gender [18], playing experience [7, 19], coaching experience coaching education [20, 21] and many more. Findings from this study indicated that the level of coaching courses attended by the coaches was a good predictor for the coaches' level of coaching efficacy. Previous research by Sullivan, Paquette *et al.* [21] has shown that the attendance of formal coaching education programs resulted in changes of coaching behaviours and also coaching efficacy. Study by Fung [10] stated that attending coaching education programs that help in providing mentor teaching for less experienced coaches would help improve their commitment in coaching. Woodman [22] in his study, furthermore, supported that coaching education programs were the most effective method in increasing the coaches' coaching efficacy and also their competency. Thus, coaching courses attended by the Malaysian SUKMA coaches may have boosted their confidence level in coaching their athletes.

While coaching courses are a strong predictor to coaching efficacy, this study also revealed that the combination of attending to coaching courses and having playing experience are also a strong predictor to an individual's level of coaching efficacy. Past studies supported that playing experience was a strong predictor of coaching efficacy because the coaches with a lack of coaching experiences may use their playing experience to provide sport-specific knowledge of the skills, rules and also strategies on how the game is played as a basis for coaching efficacy beliefs [3, 5]. Sullivan, Gee *et al.* [19] also stated that coaches' playing experience was a unique source of coaching efficacy.

This study presented a regression result to predict the Malaysian coaching efficacy that can help the sports organization committee to find the most suitable coaches to develop and coach Malaysian athletes in future competitive sports events.

CONCLUSION

While further research is paramount to expanding the understanding of coaching efficacy in this environment, this study has provided an additional knowledge of coaching efficacy that relating to Malaysian youth coaches. Despite their coaching status, the Malaysian youth coaches are aware that playing experience and attending to coaching courses are important for them to become a successful coach. In conclusion, while the level of coaching efficacy among Malaysian youth coaches is a generally high, however coaches should improve more in their game strategy efficacy as the score reported was low compared to the other coaching efficacy subscales. Improving the game strategy efficacy may help in improve the coaches' ability to coach better during competition and lead their athletes to a successful performance [22, 23].

This study only examined the antecedents of Malaysian SUKMA coaches and did not investigate the impact of the coaching efficacy dimensions. Since past studies already stated that coaches who had high coaching efficacy used more positive coaching styles, had more players who were satisfied with their playing experiences, had higher winning percentages and had higher efficacy levels among athletes and teams [12, 23], therefore, it would be interesting to examine these variables on Malaysian coaches to see whether the outcomes are similar to past studies.

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