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COACHING INTERVENTION INDICES AS PREDICTORS OF EFFECTIVE COACHING AMONG NIGERIAN COACHES

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Abstract

The purpose of this research was to investigate on coaching intervention behaviors as predictors of an effective coaching. It was a descriptive research design and correlation type study to gain an in-depth understanding of the participants' views on the coaching intervention and effective coaching practice variables. Participants for this study were 50 male and 34 female athletes with mean age (mean = 24.52; SD 9.4). Athletes with sport involvement liked athletics, judo, swimming, volleyball, handball and table tennis. The measures used were Perceived Coaching Intervention Questionnaire ($r = .84$) and Effective Coaching Scale ($r = .79$). The results showed positive correlations between Effective Coaching and Encouragement ($r = .514, p < .05$), Technical Information ($r = .614, p < .05$), Negative Feedback ($r = .591, P < .05$) Positive feedback ($r = .585, p < .05$). 46.9% of the variance in the dependent variables was explained by four predictor variables when taken together. Conclusively, it was identified that positive feedback was the most potent from the four interventions as perceived by the athletes. The recognition of these excellent intervention coaching practice along the various sporting pathway would supports developments in models and frameworks for sport in Nigeria and globally.

Keywords: Coaching Intervention, Effective Coaching, Nigerian Coaches.

Introduction

Coaches through actions, speech and presence according to Jowett and Cockerill (2002) were very instrumental in an athletes' psychosocial and physical development. Indeed, coaches were influential leaders and there was evidence that child athlete's rates positive evaluation from coaches as more important than parental evaluations (Smith, Smoll and Smith, 1989).

Coaching as a dynamic and systematic process involved a number of processes which included observation, assessment, development of programmes, implementation of programmes, as well as reassessment. The coach in the opinion of Jones et al (1993) was placed in the role of a leader with many specific roles to play in the life of an athlete. Whatever type of sport, an athlete was involved in, the coach could have a significant impact on the life of the athletes (Baker, Yardley and Cote, 2003).

Effective coaching in this study was operationalized as the planned intervention by the coach designed to improve the performance of an athlete with emphasis on specific task and relationship. These

could be informal and formal to the athletes. Informal coaching was a daily management activity during which coaches encourages an athlete to try out a new skill while providing advice, guidance, help and encouragement. While the formal coaching was the coaches sets aside some time to work with athletes to help them developed or improved a specific skill in a structured way.

Several interventions by coaches had been shown to have a considerable impact on athletes. These interventions consisted of positive feedback, verbal reinforcement for skilled action, encouragement or comments that the athlete could be successful, technical information or advice about to improve action and criticisms or negative feedback following mistakes (Gallucci, 2008). Studies have lend credence to the fact that coaches who provided more positive feedback and encouragement following mistakes supported the development of higher general self-esteem among their male players and coaches who provided more technical instructions or instrumental support encouraged higher levels of athletic self-esteem (Smoll and Smith, 1989; 1990).

Several differences in responses to coaches been effective here been recorded for athletes in literature. For example, competitive swimmers have perceived competence, success and enjoyment as products of interactions with their coaches when the coaches provided them with technical information after desirable performances (Black and Weiss, 1992). Praise did have an appreciable influence on their perceived competence, success and enjoyment. This same group of swimmers according to Gallucci (2008) perceived competence, success and effort to be real when the coaches use the combinations of technical information, praise and criticisms.

There was widespread recognition that effective coaching was a critical element in any highly performance sports system and it was also integral to the delivery and development of high quality sporting experiences that inspire people of all ages to get involved and develop through sport. Despite this interest in quality coaching, a clear understanding of what excellence and effective coaching practice is or should look like is yet to be established. Cross (1995) suggested that there was no ideal model of coaching practice, even for the narrowly focused high performance level which was the focus of his research. Furthermore, Cross contended that many factors affect the type of coaching process that be most appropriate at any time. Despite the recognition of the complexity of the coaching process (Lyle, 2002), researchers have continued to examine coaching behaviours and practice. Through this study, researchers had described coaching behaviours of successful coaches (e.g., Becker & Wrisberg, 2008; Cushion & Jones, 2001; Gallimore & Tharp, 2004; Smith & Cushion, 2006) and effective coaching behaviours of expert coaches (Cote & Sedgwick, 2003; Cross, 1995; Dowdell, 2010).

It has been theorized that for a coach to be seen as effective, one's must possess certain personality traits. The trait theory suggested that effective coaches possess certain personality characteristics that make them ideally suited for leadership no matter the situations they found themselves in Weinberg and Gould, 1999. These traits which were considered stable personality dispositions are intelligence, assertiveness, independence and self-confidence.

Ghiseli (1963) in an earlier study reported other personality traits associated with effective leadership. These were the ability of the respondents to imitate action independently, and that self-assurance was related were those to respondents' hierarchical position within the group. Also, effective leaders exhibited individuality. A review of literature showed that when various theories of this nature were applied to the sport setting, training for competitiveness, providing social support and being rewarded were identified as the behaviours of coaches most desired by athletes when the coaches were rated.

Chelladurai and Salleh (1980) conceptualize training and instruction leadership as a task-oriented dimension of coaching behaviour aimed at improving athletes' performance through an emphasis on

training, teaching specific skills and coordinating activities. Social support which is motivation-oriented captures coaching behaviour that demonstrates a care for the personal welfare of the athletes and includes the creation and maintenance of a positive group atmosphere and emphasis on interpersonal relations. Positive feedback leadership, another motivational oriented dimension refers to coaching behaviour that reinforces the athlete by recognizing and rewarding good performance.

Coaching has a long history which can be traced back to Socrates, who believed that individuals learn best when they have ownership of a situation and take some form of personal responsibility for the outcome. Coaches in recent times have played a role in sport, especially when the act is effective as an important determinant of athletes' experiences in sport. Despite the importance and responsibility of the roles play by coaches as outlined in literature there exist little in research in Nigeria on how the athletes perceived them as effective leaders especially when some common interventions seen as coaching behavior are applied on the athletes' sport experiences and which perceived coaching behaviours relate to athletes perception of coaching effectiveness? It is in the light of this that this study investigated the athletes' perception of coaching intervention indices as predictors of effective coaching in Nigeria.

Method

Participants

The participants in this study were 50 male and 34 female professional athletes sampled proportionately with mean age (mean = 24.52; SD 9.4). Their involvements are athletics, judo, swimming, volleyball, handball and table tennis. 30.0% of the athletes (25) had paying experience of (1-3 years); 62.0% of the athletes (52) had playing experience of (4-7 years); while 8.0% of the athletes (7) had years of playing experience of 8-10 years.

Procedure for Data collection

The ethical approval to conduct the study was obtained from the appropriate authority, while the consent of the athletes to participate in the research were sought through the consent form filled and signed by the athlete that volunteered to participate in the research. The content of the instrument were explained to them before the data was collected.

Measures

Two self-developed instruments were used for data collection. The Bandura (2006) guidelines for constructing efficacy scale were taken into consideration for the construction of the scales. These include domain specification, gradation of challenge, construct relevance, response scaling, phrasing of items, item analysis, minimizing response bias and validation.

The first instrument was the Perceived Coaching Intervention Questionnaire (PCIQ) which is a 16-item statement of four point rating Likert format of Strongly Agree(4points), Agree (3points), Disagree (2points) to Strongly Disagree (1 point). It has four sub-scales with a scale wise internal consistency values for Positive feedback ($r=.71$); Encouragement ($r=.81$); Technical Information ($r=.73$) and Negative feedback ($r=.76$). The overall reliability coefficient for the scale was ($r=.84$). A total perceived coaching intervention score is calculated by summing the 16 rated items. Some of the items are "the recognition I received from my coach(es) as a result of my beautiful performance motivates me to work hard for the success of the team", I see my coach(es) as very effective because of the word of encouragement to move on". "An effective coach give the appropriate technical advice to improve on

one's skill", "the criticisms from my coach(es) following mistakes assisted me to do things right during game situations".

The second instrument was the Effective Coaching Scale (ECS) which was an 8-item statements, self-develop scale in a four Likert format of Strongly Agree (4- points), Agree (3- points), Disagree (2- points) to Strongly Disagree (1- point). A total perceived coaching effectiveness score was calculated by summing the 8 rated items. Internal consistency reliability coefficient of the scale was ($r = .79$). Examples of items in the scale are "An effective coach give comments that can make athletes to be successful", My coach is very effective because of the constructive criticisms that he makes based on my performances during training and game situations". In order to reduce the items of both scales to a meaningful size, a principal component factor analysis with varimax rotation was conducted for the sample. Criteria for item retention on a factor were set at .05. The two instruments were reliable because it met the Nunnally (1998) Criterion of ($r = .70$), expected of psychometric measures.

Design and Data Analysis

The descriptive survey design of correlation was used because the variables involved in this study were not manipulated. While descriptive statistics of percentage and mean were used were appropriate. The parametric statistics of correlation and the multiple regression models were also used for the relationship and prediction.

Results

The results from table 1 below showed there were positive correlations between Effective Coaching and Encouragement ($r = .514$, $P < .05$), Technical Information ($r = .614$, $P < .05$), Negative Feedback ($r = .591$, $P < .05$), Positive feedback ($r = .585$, $P < .05$).

Table 1: Correlation Matrix Showing the Relationships between Independent Variables (Positive feedback, Encouragement, Technical Information and Negative Feedback) and Effective Coaching

	Effective Coaching	Recognition	Encouragement	Technical Information	Negative Feedback	Mean	Std. Dev.
Effective Coaching	1					26.83	3.32
Positive feedback	.585**	1				31.50	3.78
Encouragement	.514**	.426**	1			13.51	1.78
Technical Information	.614**	.127	.587**	1		13.62	1.59
Negative Feedback	.591 **	.174	.448**	.644**	1	13.46	1.54

** Sig. $p < .01$ level, * Sig. $p < .05$ level

Table 2: The Joint Contribution of the Independent Variables Independent variables (Positive feedback, Encouragement, Technical Information and Negative Feedback) on Effective Coaching

R	R Square	Adjusted R Square	Std. Error of the Estimate			
.685	.469	.442	2.4732			
ANOVA						
Model	Sum of Squares.	DF	Mean Square	F	Sig.	Remark
Regression	426.439	4	106.610	17.429	.000	Sig.
Residual	483.228	79	6.117			
Total	909.667	83				

Table 2 showed the joint contribution of the four independent variables to the prediction of the dependent variable i.e. Effective Coaching correlated positively with the four predictor variables. The table also showed a coefficient of multiple correlation (R =.685 and a multiple R² of .469. This means that 46.9% of the variance in the dependent variables was accounted for by four predictor variables when taken together. The significance of the composite contribution was tested at p < .05. The table also showed that the analysis of variance for the regression yielded a F-ratio of 17.429 (significant at 0.05 level). This implies that the joint contribution of the independent variables to the dependent variable was significant and that other variables not included in this model may accounted for the remaining variance.

Table 3. The Relative Contribution of the Independent Variables (Positive feedback, Encouragement, Technical Information and Negative Feedback) on Effective Coaching

Model	Unstandardized Coefficient	Std. Error	Standardized Coefficient	t	Sig.
(Constant)	4.374	3.148		1.390	.169
Positive feedback	7.326E-03	.077	.409	4.095	.000
Encouragement	.365	.210	.327	2.744	.001
Technical Information	.635	.259	.297	2.454	.016
Negative Feedback	.650	.227	.310	2.867	.005

Table 3 showed the various relative contributions and levels of significance of the independent variables: Recognition (β = .409, p <.05), Encouragement (β = .327, p <.05), Technical Information (β = .297, p <.05) and Negative Feedback (β = .310, p <.05). Table 4 indicated mean rating of coaching intervention indices by athletes.

Table 4. Mean Rating of Coaching Intervention Indices by Athletes

Intervention Indices	Mean	S.D	Ranking
Positive Feedback	31.50	3.78	1
Encouragement	13.51	1.78	3
Technical Information	13.62	1.59	2
Negative feedback	13.46	1.54	4

Discussion

Literature review on coaching interventions demonstrates the importance of coaching relationships and provided practical examples of how effective coaching could be established, ranging from individual requirements to organizational needs. Establishing effective coaching relationship requires an in-depth examination of the needs of athletes from the psychosocial perspectives as well as the feelings or rating of these coaches by the same athletes.

The findings in this study showed that the four identified perceived behavioral coaching intervention related to the athletes' perception of coaching effectiveness. Smith and Smoll (1990) were of the opinion that athletes responded favorably to coaches who emphasized encouragement and technical assistance but not to coaches who were punitive or frequently made negative comments or gave correction in a hostile manner.

Findings showed positive relationship of encouragement and technical information with effective coaching lend credence to Smith and Smoll (1990) submissions. An earlier research of Smith, Zane, Small and Coppel (1983) similarly agreed with the findings of this study. That studied found out that young basketball players responded favorably to positive feedback, encouragement, technical instruction and criticism of their coaches. Athletes on high school female and male basketball teams were more satisfied with the effective. Coaching leadership atmosphere of their teams when coaches were more supportive and gave more frequent positive feedback and less frequent negative feedback (Fisher, Mancini, Hirsch, Proux and Starrowsky, 1982).

Findings of this study also showed that the perceived coaching intervention indices could be used to positively predict coaches' effectiveness. This invariably means that if these coaches were provided with training, using for example the coaching effectiveness training (CET; Smith, Smoll and Curtis, 1979), this could continually gave more encouragement, more technical support, more positive feedback, fewer punitive responses and less negative feedbacks to athletes. The athletes in their rating found positive feedback as the best of the intervention provided by the coaches. An effective coach who always provided positive feedbacks to athletes will always be successful, especially when these feedbacks serves as a form of reinforcement for skilled action on the part of the athletes.

Coaches were extremely interested in knowing about methods that could be used to help athletes build, maintain and regain confidence. Findings also understand that coaches' own confidence in their ability to coach was important and could have powerful effect on their athletes. (Feltz, Short, and Sullivan, 2008). In addition, to examining observable behaviours, Doug and Hastie (1993) indicated that

effective coaches also observe, analyze, and synthesize information and modify those coaching to fit the situation and the need of the athletes involved. Several studies have identified further effective behaviours of expert coaches including: planning, creating a positive training environment, teaching effectively, 'envisioned' excellence, individualization, establishing positive coach-athlete relationships (Cote & Sedgwick, 2003; Cross, 1995; Dowdell, 2010).

Cote and Gilbert (2009) provide a conceptualization of coaching effectiveness and effective coaching with a link to coaches' expertise. First defined coaching effectiveness as "the consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts". In light of this definition of coaching effectiveness, Cote and Gilbert suggested that expertise was about a specific knowledge base coaches acquire. This expertise in the opinion of the authors of this paper determined the type of intervention index or indices that the coaches should give at a given period. Professional knowledge refers to the 'how to' element of effective coaching. This was the content and the delivery elements of coaching. Interpersonal knowledge refers to coaches' social interactions, and the coaches-athletes relationship. Intrapersonal knowledge reflected coaches' ability for introspection and reflection, and continued pursuit of improvement.

Furthermore, an effective coach demonstrated the ability to apply these interventions in research's work with athletes such that learning outcomes are achieved. Where these outcomes were athletes' competence, confidence, connection and character, the coach would be considered to be effective. Finally, when a coach demonstrated this effectiveness over an extended period of duration may be considered expert coaches. Strength of Cote and Gilbert's approach is that they recognize the importance of the coaching context in determining an effective coach. Performance demands and athlete developmental level are considered the two most important elements of the coaching context. Effectiveness is applying knowledge in ways that were appropriate to the demands and developmental level of the athletes in a particular coaching domain. The conceptually grounded definition presents a promising direction for research in the domain of effective coaching in sport.

Conclusion

This study identified some basic intervention indices which the athletes perceived to demonstrate effective coaching practice. Through this work, the athletes demonstrated that positive feedbacks, encouragement, technical information and negative feedbacks which come in form of constructive criticisms positively influence effective coaching. It was noteworthy to state that many of the features of excellent coaching practice were found in these coaching intervention variables. This study also identified that positive feedback was the most potent of the four interventions as perceived by the athletes. The recognition of these excellent intervention coaching practice along the various sporting pathway may support developments in models and frameworks for sport in Nigeria and globally.

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