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MOTIVATIONAL FACTORS FOR SPORTS PARTICIPATION AND CAREER SELECTION OF UNIVERSITY STUDENT-ATHLETES

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ABSTRACT

Motivation is one of the most important catalysts that coaches and athletes agreed facilitate not only performance but also positive sports experience. Although motivated university student-athletes would play pivotal roles in national sports development, motivational factors for sports participation and career selection of university student-athletes in Ghana has not been well elucidated. Thus, this study had 110 student-athletes from 6 professional classifications and 10 sporting disciplines served as respondents. Sports Motivation Scale (SMS-28) and an adopted career selection questionnaire were administered. Prior involvement of friends and family members in similar sports was the main motivational factor for initial sports participation (eigenvalue = 2.10) and career choice (eigenvalue = 2.83). Intrinsic pleasure in knowing more about sport (eigenvalue = 9.29), discovering new training techniques (eigenvalue = 3.42), learning new training techniques (eigenvalue = 2.77) and discovering new performance strategies (eigenvalue = 1.58) were the main motivational factors for continued sports participation. Prior knowledge of desired career was the main factor influencing career selection process (eigenvalue = 3.92). 72.7% of the university student-athletes do not intend to venture into professional athletic careers after school. Student-athletes are majorly motivated by friends and family members. Their engagement in sports on campus is driven by intrinsic motivation. University sports directorates should work with National Sports Authority to ensure that best student-athletes are invited into the national sporting events where involvement of friends and family members in the motivational processes could be advanced.

Keywords: *Intrinsic, extrinsic, sports participation, university, constellation, collegiate*.

1. INTRODUCTION

Motivation is considered as one of the most important variables in sports that coaches and athletes agreed facilitates not only sport performance but also positive sports experiences (Manoucheri, Farshad, & Soltanabadi, 2015; Vallerand, 2004). According to Breese (1998), motives help individuals to reach their goals, initiate or modify behaviours. Study showed that motives often affect a person's perception, cognition, emotion, and behaviour (Reiss, 2004). Lai (2011) observed that motivation involves constellation of beliefs, perceptions, values, interests, and actions that are all closely related. As a result, various approaches to motivation in sports focus on cognitive

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behaviours (such as monitoring and strategy use), non-cognitive aspects (such as perceptions, beliefs, and attitudes) or both (Lai, 2011). It is important for coaches and other athletic professionals who are responsible for the physical and mental preparation of athletes, to recognize what motivates their athletes in order to help them achieve their goals while keeping the sport fun (Tapps, Beck, Cho, & Volberding, 2013).

Understanding why college students participate in sports has evolved into an important research topic because of the numerous benefits (physical, psychological, emotional and social elements) and developments derive from participation in sports (Houselog, 2014). Studies investigating the motivational factors for sport participation would enable sports professionals to identify the reasons that lead young people to begin participating in sports and the factors that make them remain in active participation (Guedes & Netto, 2013; Neibert, Huot, & Sexton, 2010). According to Houselog (2014), examining the motivational factors of sports participation can provide student affairs and recreational sports professionals with information to help strengthen participation in campus recreation. The identification of motives for sport participation permits the design of more effective measures that promotes a favorable motivational climate, thus providing more opportunities for young athletes to achieve their goals, increase their chances of adherence to sport programs and reduce the probability of dropout (Guedes & Netto, 2013).

Once students join sports teams on campus, they begin to feel a sense of fulfillment deep within them. Ryan and Deci (2000b) concluded that "the fullest representations of humanity show people to be curious, vital, and self-motivated, and at their best, they are agentic and inspired, striving to learn; extend themselves; master new skills; and apply their talents responsibly". Collegiate sports participation, on a percentage basis, is the road most athletes travel in their aspiration to reach the professional ranks (Bates, 2007).

Although, there are numerous factors that can either discourage many African university students from joining any sports team or cause existing student-athletes to drop out of sports as applicable to Kwame Nkrumah University of Science and Technology, involvement of many is on the high sides. Furthermore, in spite of the countless hours of practice and training associated with optimal sports performance, student-athletes are expected to excel in their academics by the society, friends and particularly families. Determined student-athletes usually prove to the society that sports participation should not even be used as an excuse for poor academic performance. After all the years of working hard to combine sports with academics, students graduate successfully and presented with different careers options. The big questions would be: do these student-athletes have the intention of becoming professional athletes or do they want to pursue careers outside the scope of sports after school? In an attempt to respond to these national sports challenging questions, this study examined the motives of university student-athletes to initially participate in sports on campus, continue in sports participation, and/or choose career in or outside sports while taking sports as part-time activity after school.

2. METHODS AND MATERIALS

2.1 Study Design

This study followed a descriptive research design. It examined the situation as it exists in its current state, and identifies the attributes of the phenomenon in question based on an observational basis, or an exploration of correlation between two or more phenomena.

2.2 Participants

The study population consisted of all registered student-athletes of Kwame Nkrumah University of Science and Technology (KNUST) of 2016-2017 academic year. A total of 110 registered student-

athletes of KNUST campus who were belongs to the athletics, basketball, soccer, hockey, tennis, volleyball, handball, netball, table tennis and badminton. From the sample, 79% of the athlete-students were males and 21% were females. The age distribution of the participants demonstrated that, majority 72.0% was with ages between 20 and 23 years. The average age was 21.40 ± 0.41 years. With regards to colleges, most of the participants (26.4%) were from the College of Health Sciences. 14.5% of the athlete-students had three years playing experience while 0.9% had 11 years of experience. Most of the participants played basketball and athletics respectively whiles 5.0% were in the Table Tennis team.

2.3 Tools Used in the Study

The Sports Motivation Scale (Pelletier *et al*., 1995) and an adopted career selection questionnaire were used for data collection. The Sports Motivation Scale (SMS-28) was used to investigate the motivational factors of the student-athletes. This scale is founded on the principles of the Self-Determination Theory (Ryan & Deci, 2000). It was designed to assess contextual intrinsic and extrinsic motivation from a multidimensional perspective as well as amotivation. SMS-28 has seven sub-scales: intrinsic motivation toward knowledge, accomplishment and experience to stimulation; extrinsic motivation identified, introjected and external regulation; and amotivation. Each of the sub-scales has 4 structured items assessed on a 7-point response scale grouped along the spectrum of does not correspond at all, corresponds a little, corresponds moderately, corresponds a lot, and corresponds exactly. The Cronbach's alpha value ranges from 0.74 to 0.80 has been documented (Clancy, Herring, & Campbell, 2017).

2.4 Procedure of Data Collection

The student-athletes were served with the questionnaires 30 minutes before to their training sessions. Thirty minutes before commencement of every training session, the captains of the different sporting disciplines were contacted and reminded of the data collection process that was going to take place. Upon arrival, the athletes were given the questionnaires together with writing instruments to aid filling the questionnaire. Athletes who came in late were served with the questionnaire after the training session and those that showed severe signs of fatigue and exhaustion were given the questionnaire to take home and submit on the next training session.

2.5 Statistical Analysis

Data gathered was analyzed using SPSS v.23.0. The data was analyzed descriptively and inferentially. Descriptive analysis of frequency count, percentage, mean and standard deviation were conducted while inferential statistics of correlation, multiple regression analysis and Principal Component Analysis of factor analysis were carried with significance set at 0.05 level.

3. RESULTS

Table 1: Correlation and Kaiser-Meyer-Olkin test for initial motivation

Correlation Matrix	Friend In sport	Job opportunity for sport	Scholarship for sport	KMO and Bartlett's Test		
Sports Job opportunity	0.16			Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.65
Scholarship for sports	0.11	0.55			Chi-Square	100.40
Opportunity to play abroad	0.01	0.42	0.64	Bartlett's Test of Sphericity	df	6
					p value	0.00

Table 1 shows the result of Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy value of 0.65 was higher than the accepted standardized value of $df = 6$ and $p = 0.000$ at Bartlett's test of Sphericity (BTS).

Table 2: PCA on Factors that motivate student-athletes to join the university sports teams initially

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Components	**Total**	**% of variance**	**Cum %**	**Total**	**% of Variance**	**Cum%**
Friend in Sports	2.10	52.67	52.67	2.10	52.67	52.67
Sport Job opportunity	1.00	25.06	77.74	1.00	25.06	77.74
Scholarship for Sports	0.56	13.99	91.74			
Opportunity to play Abroad	0.33	8.25	100.00			

Table 2 presents the PCA performed that further revealed two factors (friend in sports and job opportunity for sport) with eigenvalues (2.10, 1.00) exceeding the recommended value of 1, explaining 52.7% and 77.7% of the variance respectively. These two factors in total explain 77.7 percent of the variance, whereby Friend in sports contributes the highest (52.7%) and Job opportunity for sport contributes 25.1 percent.

Component matrix show that friend in sports motivates much more than job opportunity for sport although both factors meet the minimum eigenvalue of 1 and more; and have weak positive correlation ($r = 0.16$). Analysis on the factors that motivate student-athletes to continue sports participation shows correlation Chi-Square of 2072.62 at $df = 378$, $p = 0.000$ and KMO value of 0.799 been more than the recommended value of 0.6 and significant at 0.05 level.

Table 3: PCA on factors that motivate student-athletes to continue sports participation

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cum %**	**Total**	**% of Variance**	**Cum %**
Intrinsic motivation for knowledge						
Pleasures in knowing more about sports	9.295	33.196	33.196	9.295	33.196	33.19
Pleasure in discovering training techniques	3.429	12.245	45.442	3.429	12.245	45.44
Pleasure felt while learning training techniques	2.777	9.919	55.361	2.777	9.919	55.36
Pleasure in discovering new performance strategies	1.580	5.643	61.004	1.580	5.643	61.00
Intrinsic motivation for accomplishment						
Personal satisfaction while mastering certain difficult training techniques	1.372	4.898	65.903	1.372	4.898	65.90
Pleasure I feel while improving some of my weak points	1.094	3.908	69.811	1.094	3.908	69.81
The satisfaction I experience while I am perfecting my abilities	.944	3.371	73.181			
The pleasure that I feel while executing certain difficult movements	.799	2.853	76.034			
Intrinsic motivation to experience stimulation						
The pleasure I feel in living exciting experiences	.788	2.816	78.850			
The excitement I feel when I am really involved in the activity	.651	2.325	81.174			
The intense emotions I feel doing a sport that I like	.599	2.140	83.315			

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I like the feeling of being totally immersed in the activity	.520	1.858	85.172
Extrinsic Motivation Identified			
It is one of the best ways to meet people	.503	1.796	86.968
It is one of the best ways chosen to develop other aspects of myself	.485	1.731	88.699
It is a good way to learn lots of things which could be useful to me in other areas of my life	.437	1.562	90.260
It is one of the best ways to maintain good relationships with my friends.	.422	1.508	91.768
Extrinsic Motivation Introjected			
It is absolutely necessary to do sports if one wants to be in shape	.371	1.325	93.093
I must do sports to feel good myself	.320	1.142	94.235
I would feel bad if I was not taking time to do it	.278	.993	95.228
I must do sports regularly	.223	.796	96.024
Extrinsic Motivation for External Regulation			
It allows me to be well regarded by people that I know	.194	.693	96.716
The prestige of being an athlete	.187	.667	97.384
People around me think it is important to be in shape	.165	.589	97.972
To show others how good I am good at my sport	.158	.566	98.538
Amotivation			
I had a good reason but now I am asking myself if I should continue doing it	.127	.453	98.991
I have the impression of being incapable of succeeding in this sport	.112	.400	99.392
I don't really think my place is in sport	.103	.368	99.760
I can't seem to achieve the goals that I set for myself	.067	.240	100.000

From table 3, pleasures in knowing more about sports (9.295), pleasure in training techniques (3.429), pleasure felt while learning training techniques (2.777), and pleasure in performance strategies (1.580), personal satisfaction while mastering certain difficult training techniques (1.372) and pleasure I feel while improving some of my weak points (1.094) which have eigenvalues more than 1 were the identified intrinsic motivation factors influencing student-athletes to continue in sports participation. The cumulative % results show that these factors together contributed 69.8 percent of the variance, of which intrinsic motivation for accomplishment factors accounted for 2.5 percent and the intrinsic motivation for knowledge factors have the highest (17.1%).

Table 4: Communalities and component matrix of the component that contribute to the process of career selection

Components	Communalities		Component Matrix[a]
	Initial	Extraction	
Always knew what I wanted to do in future	1.000	.456	.855
I am aware of my abilities and possibilities	1.000	.665	.851
I can assess my career opportunities	1.000	.725	.822
I can compare my abilities with my career alternatives	1.000	.731	.815

I explored my career alternatives in detail	1.000	.676	.787
I chose my career path after I analyzed all possibilities	1.000	.619	.675
Desired choice of career	1.000	.052	-

Table 5: PCA on factors that contribute to the process of career selection

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %
Always knew what I wanted to do in future	3.923	56.036	56.036	3.923	56.036	56.036
I am aware of my abilities and possibilities	0.980	13.996	70.032			
I can assess my career opportunities	0.659	9.409	79.441			
I can compare my abilities with my career alternatives	0.587	8.383	87.825			
I explored my career alternatives in detail	0.365	5.218	93.043			
I chose my career path after I analyzed all possibilities	0.312	4.462	97.505			
Desired choice of career	0.175	2.495	100.00			

From table 4 and 5, the Kaiser-Meyer-Olkin measure of sampling adequacy eigenvalue = 0.839 is higher than the generally accepted value of 1, Bartlett's Test of Sphericity Chi-Square = 372.546, *df* = 21, *p* = 0.000. The component is *Always knew what I wanted to do in future'* and it contributed 56.03 percent of the variance.

Table 6: PCA on factors that contribute to the process of career choice

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cumulative %
Friend or family works in a similar career	2.838	56.752	56.752	2.838	56.752	56.752
Job opportunities affect my career choice	.929	18.581	75.332			
Scholarship opportunities affect my career choice	.497	9.942	85.274			
Opportunities to work abroad affect my career choice	.449	8.983	94.257			
Getting a job without prior experience affect my career choice	.287	5.743	100.000			

Results of this study show that out of 110 student-athletes sampled for the study, high proportion (80, 72.7%) desired not to be athletes while only few (30, 27.3%) opted for athletes after school.

The Kaiser-Meyer-Olkin measure of sampling adequacy value = 0.756, Bartlett's Test of Sphericity Chi-Square = 189. 337, *df* = 10, *p* = .000. PCA showed the motivational components behind student athletes' choice of careers as friend or family who works in a similar career factors. This was based on total eigenvalue of 2.838, which was higher than the recommended 1 value. Also, the disclosed motivating factor accounted for 56.8 percent of the variance (table 6).

Table 7: Regression correlation of motivational factors and demographic characteristics

	Age	Gender	College	Playing Years	Specific Sport
Motivational factors for career choice	.004	-.049	.061	-.089	.113
Age	1.000	-.007	.263	.378	-.068
Gender	-.007	1.000	.122	-.006	.092
College	.003	.122	1.000	-.021	.040
Playing years	.000	-.006	-.021	1.000	-.058
Specific sport	-.068	.092	.040	-.058	1.000

Table 7 showed that the correlation coefficients between motivational factors and demographic characteristics of age (r=0.004) and gender (r=-0.049) is significant while with college (r=0.061), playing years (r=-0.089) and specific sports (r=0.113) was insignificant. Nonetheless, these coefficient results are not higher than the 0.9 cut-off point for the presence of multicollinearity. Hence, the relationships among the independent variables are weak although some are statistically significant.

4. DISCUSSION

This study examined the motives of university student-athletes to initially participate in sports on campus, continue in sports participation, and/or choose career in or outside sports while taking sports as part-time activity after school. Findings showed that friend in sports and sports job opportunities contribute mostly to initial sports participation of student-athletes. This result is in line with the findings of Tapps et al. (2013) who conducted a study on the sports motivation of three generations of college athletes and reported that 2 out of 3 respondents began sports participation because they had close family members that enjoyed their sport. This finding is not in congruence with earlier study that showed university student-athletes participation in sports to be insignificantly correlated with parents (Pacheco, Soto, Olivárez, & Avila, 2012). Again, it is quite obvious that most students wish to have good jobs at the end of their academic journeys.

It was also found out that, student-athletes were intrinsically motivated to continue in the sports participation far more than they were extrinsically motivated. However, intrinsic motivation for knowledge accounted for the higher cause of continued sports participation than intrinsic motivation for accomplishment. This study supports earlier work of Vallerand (2004) who reported intrinsic motivation as one of the important factors in achieving a satisfactory athletic experience. It is also in line with the findings of Houselog (2014) who conducted a study on motivating factors for college students" involvement in club sports and reported that personal enjoyment (intrinsic motivation) is the most important reason for college students' participation in club sports (van Heerden, 2014). A study conducted by Suzic (2011) also showed that, the success of students in physical education classes was majorly from the intrinsic motive for knowledge.

The results obtained from the study indicate that in the process of choosing a career after school, most of the participants always knew what they wanted to do in future. Hence most preferred to be in non-athletic careers. Their preference for non-athletic career could be linked to poor athletic identity. Individuals with high athletic identity have been reported to have higher probability of choosing sport-related occupations (Cabrita, Rosado, Leite, Serpa, & Sousa, 2014). The influence of demographic characteristics on motivation to have higher interest in sports participation after school varied with this study sample which is in line with recent report (Lawler, Heary, & Nixon, 2017).

5. CONCLUSION

Motivation is a very key psychological construct which cannot be ignored in the quest for optimum sports involvement and performance of coaches, athletes and athletic managers. This study concludes that friends or relatives involved in a similar sport and availability of job opportunities served as the main initial motivating factors of university student-athletes for sports participation. The student-athletes were intrinsically motivated (towards knowledge and accomplishment) to continue in sports participation on campus, motivated to select their desired career alternatives based on friends or family members who were involved in similar careers, and desired to pursue career path outside the field of sports after school. Investigating into the direct reasons that deter university student-athletes from venturing into professional sports after school would be helpful.

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