

## Motivational profiles of college level athletes: Using Cluster Technique

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### Abstract

Purpose of the present study was to identify motivational profiles of college level sports man using cluster analysis in LNIPE Gwalior. Sixty male subjects from a Basketball and Volleyball team sports were selected to participate in this study. The Sport Motivation Scale (SMS) was administered to all participants. Hierarchical cluster analysis revealed a three-cluster solution for this sample: low motivated, medium motivated and highly motivated group. There is no cluster found in a motivation group because they are already a sports man. Findings of the present study showed three types of sub group in college level athletes. Highly motivated athletes consistently scored higher than all other group. This study identified motivational profiles of competitive youth sport participants.

**KEYWORDS:** Motivational profile, cluster, College level sports man

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### Introduction

Over the last few decades there has been a substantial increase in interest in children's or youth's participation behavior in sport context. Numbers of researches are continuing studding to find out the interest and motivation of the sports man in the field of sports. In general, youngsters are found to have a variety of motives such as fun, fitness, competence, and skill improvement (Gill et al., 1983; Gould et al., 1985; Klint and Weiss, 1987). In motivation content there are intrinsic and extrinsic both are equally responsible to get their goal. This theory gives the details about our athlete criteria interest and motivation level which are responsible to their achievements. This theory attempts to describe how individuals who vary in motivational orientations differ in their motivational patterns individual differences in patterns of key motivational indicators when looking across a comprehensive profile of scores (Wang and Biddle, 2001).

Recently, cluster analysis has gained popularity and researchers in sport and exercise psychology have employed cluster analysis as an analytical procedure to examine varying motivated behavior and motivational profiles of participants in sport context. For example, the motivational profiles of 14-15 years old Singaporean elite school sports players (McNeill and Wang, 2005), American early adolescents (Garn and Sun, 2009), Spanish members of sport centers (Camacho et al., 2009), New Zealand masters athletes (Hodge et al., 2008), British elite young athletes (Harwood et al., 2004), Spanish young athletes (Murcia et al., 2007), French junior tennis players and fencers (Gillet et al., 2009) and French tennis players (Gillet et al., 2009) were studied. In these studies different motivational profiles of athletes were reported. For example, McNeill and Wang (2005) reported three motivational cluster of amotivated, highly motivated and high task master for 14-15 years old elite athletes in Singapore.

The cluster analysis technique helps the coaches to find out the different motivation level among the players in team sports. This is helpful to make the psychology training schedule to improve the weak motivational athletes.

## **Methods**

### **Participants**

Participants were 60 male college level sports man of volleyball and Basketball players with approximately four years of sport experiences were selected from the LNIPE Gwalior. It was supposed that team sports and individual sports have different factors which influence the motivational climate in a different way. Due to this only team sports athletes were selected in the study.

### **Instruments**

The Sport Motivation Scale (SMS; Pelletier et al., 1995) was used to find out the different motivational group. SMS consists of seven subscales that measure three types of Intrinsic Motivation (IM; IM to Know, IM to Accomplish Things, and IM to Experience Stimulation), three forms of regulation for Extrinsic Motivation (Identified, Introjected, and External), and Amotivation. There were four items in each subscale with a total of 28 items. The stem question for all items was “Why do you practice your sport”. The participants responded on a 7-point sub- scale ranging from 1 (does not correspond at all) to 7 (corresponds exactly). In this questionnaire Intrinsic and Extrinsic motivation will be measured in Positive scale where as the Amotivation will be measured in Negative scale.

### **Procedure**

The SMS was administered to participants in the place of similar setting. Researcher provided verbal and visual information to the participants how to respond to items from questionnaire. Participation in the study was voluntary. The participants got the enough time to fill in the questionnaires. The permission was received from coaches of athletes.

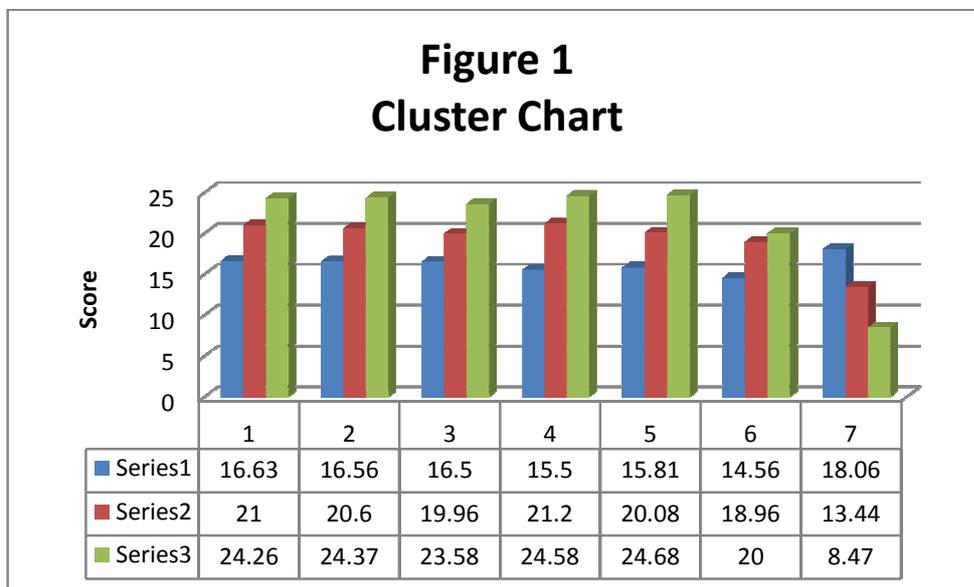
### **Observation**

Motivational profile groups were constituted using a cluster analysis procedure similar to that used by Biddle and Wang (2003) Hair et al, Emine Caglar and Hiily Asci. Cluster analysis technique is designed to make subgroups from the cases which are truly represented in sample which are homogeneous within themselves and heterogeneous between each other. This technique used to make motivational profile subgroup of college level athlete. In cluster technique we used the hierarchical technique to find out the number sub group. Further to confirm the number of sub group are correctly qualified or not for that used the k means cluster technique.

### **Results and Discussion**

In this study result of hierarchical cluster analysis provided three -cluster is best solution. To confirm the all three cluster K-means clustering was used. Using k-means cluster technique confirms that maximum numbers of the sample were correctly classified in the

three groups. Coefficient value for the 60 sample was 4334.81 which are high to the nearby value. This value support to the three clusters. In the figure 1 all there group are shown in the graphical representation.



In Cluster 1, shows the “low motivated group”, as they scores high in amotivation and low in other variable.

In Cluster 2, shows the “medium motivated group”, as they scores medium in the all variable.

In Cluster 3, shows the “High motivated group”, as they scores high in the all variable and low score in amotivation group.

In this study all the cases are divided in the three groups all the groups have different motivation level. Cases are homogeneous in the same group but heterogeneous to the other group member. Due to this character they are merged in three group solution. Cluster analysis helps us to differentiate the cases. These groups are trained by the coaches or trainer makes the plan for the development of motivational level of current athlete. Development procedure helps to improve the skill level or performance at competition level.

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