A Research on Coaches' Transformational Leadership Behavior and Student Athletes' Achievement Motivation

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Abstract: This study investigated how coaches' transformational leadership behavior affect student athletes' achievement motivation at Huayuan Branch of Songjiang Experimental School. The researcher, a physical education teacher and track and field team coach of the school conducted the study using a sample population from the same institution. The transformational leadership behavior of coaches was assessed by a group of selected student athletes from the school, and student athletes also rated their own achievement motivation. The athlete-respondents' assessment of their coach's transformational leadership were based on the following factors: modelling the way, inspiring a shared vision, challenging the process, enabling others to act and encouraging the heart. Consequently, the athlete respondents' achievement motivation was assessed in terms of achievement, power and affiliation. The goal of this study was to propose a coaching program that uses motivational techniques to encourage and assist student athletes in achieving the goals they have set. It entails coaching methods intended to improve confidence, increase motivation, and promote both professional and personal development. Recognizing the significant impact of transformational leadership on athletes, the program aims to create a motivational climate that fosters personal and team success. Based from the results, significant relationships were found between the transformational leadership behavior of coaches in terms of modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart, and the student athletes' achievement motivation in terms of achievement, power, and affiliation. The results highlight how important it is to use positive and transformative coaching techniques. Student athletes' motivation levels are greatly impacted when coaches exhibit traits like leading by example, inspiring, challenging, enabling, and encouraging.

Keywords: Transformational leadership behavior; An athlete; Achievement motivation; Motivational coaching program

1. Introduction

Student athletes' whole experience in sports and physical education is greatly influenced by theircoaches. The emphasis on transformative leadership behavior calls for a deeper examination of coaching approaches beyond team management and instruction. Rather, it places more emphasis on motivational and inspirational strategies that have a good effect on athletes. A skilled coach has the ability to inspire individuals to exceed their set objectives. In contemporary sports, managing a team, be it comprised of young athletes or adults, has become increasingly challenging. A coach or transformational leader actively seeks methods to enhance the self-confidence, resilience, and overall well-being of their team members, including the staff. When a coach or leader excels in motivating their squad, the team's level of commitment remains consistently high (Erikstad, et al.2021)^[1].

In sports and physical education, achievement motivation is important because it affects how much effort and devotion people put into their activity. It is essential to comprehend how a coach's leadership style influences student athletes' motivation in order to design coaching programs that are successful. The motivation of athletes can be significantly impacted by the transformative leadership of a coach. Inspiration, vision, and empowerment are the hallmarks of transformational leadership . (Liu et al, 2022)^[2]. When coaches display transformational leadership traits, it can have a good effect on athletes' motivation. Furthermore, transformational coaches genuinely care about each athlete's growth and well-being (Shanmuganathan- Felton, 2022)^[3]. They give each athlete their undivided time, support, and guidance, which helps to build a strong and dependable coach-athlete relationship .

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2. Related Literature

2.1 Transformational Leadership Practices in Sports

A leadership style known as transformational leadership seeks to influence followers for the better. In the past ten years, it has become more well-liked in the sporting community (Saad , 2021)^[4]. It has already changed the way that many accomplished coaches train their athletes and teams (Khan, et al, 2020)^[5]. This will lengthen athletes' tenure in the sport, reduce rates of abandonment, and establish a long-lasting cycle of constructive development and prosocial behavior (Li and Shao, 2022)^[6]. This might have significant repercussions for our civilization. A framework that can be used in coach education can be created by decomposing transformational leadership into coaching behaviors. (Smith and Moore, 2019)^[7]. Therefore, investigating the impact and underlying mechanisms of coaches' transformational leadership on athletes' well-being holds both academic and practical significance.

2.2 Achievement Motivation

Motivation is often regarded as the paramount factor in sports, significantly influencing an athlete's performance and overall sports experience (Almagro, et al. 2020)^[8]. Motivation plays an indispensable role in shaping human personality by guiding and influencing one's actions to varying degrees of effectiveness. Without a strong drive to succeed, other psychological traits and abilities may have limited impact on performance. According to Ivanisevic et al. (2017)^[9], motivation is the daily fuel for all forms of human behavior and action, whereas achievement motivation is an individual's specific will to succeed, whether that success is defined by achieving one's own goals and/or standing in front of others.

The concept of achievement motivation was extensively researched and popularized by psychologists like David McClelland and Atkinson in the mid-20th century. According to McClelland's theory, individuals with a strong need for achievement seek situations where success is contingent on their personal efforts and abilities. They prefer tasks that offer moderate challenges, as excessively easy or difficult tasks may not provide the same sense of accomplishment.

This study aimed to investigate how coaches' transformational leadership behavior affect student athletes' achievement motivation at Huayuan Branch of Songjiang Experimental School. This study considered the following null hypotheses:

- H01: There is no significant difference in the assessment of student athletes of their coaches' transformational leadership practices when their profiles are taken as test factors.
- H02: There is no significant difference in the assessment of student athletes of their achievement motivation when their profiles are taken as test factors.
- H03: There is no significant relationship between the coaches' transformational leadership behavior and the athletes' achievement motivation.

3. Methodology

3.1 Sample

The research centered on student athletes participating in the mentioned sports at the Huayuan Branch of Songjiang Experimental School, which functions as a middle school. In the context of Chinese education, a middle school typically encompasses three years of education, spanning grades seven to nine, serving as a transitional stage between elementary and high school.

Without regard to their sex, age, or specific sports area, a comprehensive enumeration was conducted on all 120 student athletes. This comprehensive enumeration, also referred to as total enumeration or census in the context of research, involves the comprehensive examination and evaluation of an entire population or target group, rather than a mere subset or sample. This method aims to collect data from every individual or element within the population, ensuring no exclusions.

The detailed breakdown of student athletes and their corresponding sports disciplines is presented in the provided below (See *Table 1*):

Table 1 Sample situation.

SPORT AREA	NUMBER OF ATHLETES
1.Track and Field	20
2.Archery	20
3. Basketball	30
4.Baseball	25
5.Martial Arts	25
TOTAL	120

3.2 Statistical Treatment

Using the Statistical Package for Social Sciences (SPSS) program, the data for the study were evaluated using the following statistical techniques at a significance level of 0.05:

Frequency Count and Percentage

Weighted Mean

Standard Deviation

T-test /ANOVA

Pearson's r Correlation Analysis

The overall findings were construed in the following manner (See *Table 2*):

Table 2 4 points Likert scale.

Weight	Scale/Range	Descriptions
4	3.51 -4.00	Strongly Agree/ Very Highly Manifested
3	2.51 - 3.50	Agree/ Highly Manifested
2	1.51 -2.50	Disagree/ Lowly Manifested
1	1.00 - 1.50	Strongly Disagree/Very Lowly Manifested

4. Results

4.1 An empirical analysis of student-athletes' transformational leadership of coaches

Table 3 Differences in the Assessment of Student Athlete Respondents on their Coaches' Transformational Leadership Behavior When their profiles is Taken as Test Factor.

	Profiles	Mean	SD	Compu ted t- value	Sig	Decision on Ho	Interpretation
Sex	Male	3.51	0.51	0.51	0.61	Aggantad	Not Significant
	Female	3.46	0.51	0.51		Accepted	
Age	12-13 y/o	3.58	0.48		0.08	Accepted	Not Significant
	14-15 y/o	3.34	0.53	2.61			
	>15 y/o	3.47	0.52				
Sports Area	Track & Field	3.46	0.51		0.69	Accepted	Not Significant
	Archery	3.40	0.58	0.57			
	Basketball	3.59	0.49	0.57			
	Baseball	3.54	0.50				
	Martial Arts	3.44	0.49				

Significance Criteria: If p > 0.05, Null Hypothesis Accepted (Not Statistically Significant); If $p \le 0.05$, Null Hypothesis Rejected (Statistically Significant Relationship).

The overall result(See *Table 3*) shows that having obtained a computed t - value of 0.51 with a significance value of 0.61, there are no significant differences in the assessment of the student athlete respondents on their coaches' transformational leadership behaviors in terms of modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart which means that male and female student athletes have relatively the same assessments on the transformational leadership behavior of their coaches.

The overall result shows that having obtained a computed F - value of 2.61 with a significance value of 0.06, there are no significant differences in the assessment of the respondents as regards their coaches' transformational leadership behaviors in terms of modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart when age is taken as a test factor. This suggests that regardless of age, athletes' opinions of their coaches' transformation al leadership do not significantly differ from one another. It appears that in this situation, age has little bearing on how coaches' leadership behaviors are evaluated.

The overall result shows, having obtained a computed F- value of 0.57 with a significance value of 0.69, there are no significant differences in the assessment of the student athlete respondents as regards their coaches' transformational leadership behaviors in terms of modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart which means that student athletes' evaluation of coaches' transformational leadership behavior is independent of the sports areas they are involved in. This shows that the athletes surveyed have a consistent opinion of coaches' leadership abilities across a range of sports. Athletes' opinions of their coaches' transformational leadership do not seem to be greatly impacted by the sports area.

4.2 An empirical analysis of student athletes' evaluation of achievement motivation

Table 4 Differences in the Assessment of Student Athlete Respondents on their Achievement Motivation When their profiles is Taken as Test Factor.

	Profiles	Mean	SD	Compu ted t- value	Sig	Decision on Ho	Interpretation	
Sex	Male	3.58	0.46	-0.87	0.39	Aggentad	Not Significant	
	Female	3.65	0.37	-0.67	0.39	Accepted		
Age	12 - 13 y/ o	3.67	0.41		0.13	Accepted	Not Significant	
	14 - 15 y/ o	3.49	0.45	2.06				
	>15 y/ o	3.62	0.41					
Sports Area	Track & Field	3.56	0.45		0.82	Accepted	Not Significant	
	Archery	3.65	0.38	0.39				
	Basketball	3.66	0.43					
	Baseball	3.63	0.44					
	Martial Arts	3.54	0.45					

The overall result(See *Table 4*) shows, having obtained a computed t- value of - 0.87 with a significance value of 0.39, there is no significant difference in the level of achievement motivation in terms of achievement, power and affiliation when sex is taken as test factor. This is taken to mean that male and female student athletes have relatively the same assessments.

The overall results show that the calculated F-value is 2.06 and the significance value is 0. 13. When age was used as a test factor, there is no significant difference in the level of achievement motivation of student athletes in terms of achievement, power and affiliation, which means that student athletes in general have relatively the same assessments regardless of their age.

The overall result shows, having obtained a computed F - value of 0.39 with a significance value of 0.72 that there is no significant difference in the level of achievement motivation in terms of achievement, power and affiliation when sports area is taken as test factor. This goes to show that student athletes have relatively the same assessments of their achievement motivation regardless of the sports area they are involved in.

4.3 Relationship Between the Coaches' Transformational Leadership Behavior and the Student Athletes' Achievement Motivation

Based from the results(See *Table 5*), significant relationships were found between the transformational leadership behavior of coaches in terms of modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart, and the student athletes' achievement motivation in terms of achievement, power, and affiliation.

Table 5 Relationship Between the Coaches' Transformational Leadership Behavior and the Student Athletes' Achievement Motivation.

Coaches' Transformational Leadership Behavior	Student Athletes' Achievement Motivation	Computed r	Sig	Decision on Ho	Interpretation
	Achievement	0.64	0.00	Rejected	Significant
1 Madalling the Way	Power	0.80	0.00	Rejected	Significant
1. Modelling the Way	Affiliation	0.74	0.00	Rejected	Significant
	Average	0.74	0.00	Rejected	Significant
	Achievement	0.84	0.00	Rejected	Significant
2. Inspiring a	Power	0.96	0.00	Rejected	Significant
Shared Vision	Affiliation	0.83	0.00	Rejected	Significant
	Average	0.90	0.00	Rejected	Significant
	Achievement	0.78	0.00	Rejected	Significant
3. Challenging	Power	0.91	0.00	Rejected	Significant
the Process	Affiliation	0.81	0.00	Rejected	Significant
	Average	0.86	0.00	Rejected	Significant
	Achievement	0.77	0.00	Rejected	Significant
4. Enabling	Power	0.91	0.00	Rejected	Significant
Others to Act	Affiliation	0.81	0.00	Rejected	Significant
	Average	0.85	0.00	Rejected	Significant
	Achievement	0.81	0.00	Rejected	Significant
F. E	Power	0.94	0.00	Rejected	Significant
5. Encouraging the Heart	Affiliation	0.81	0.00	Rejected	Significant
	Average	0.88	0.00	Rejected	Significant
Over-all Coaches' Transformational Behavior	Over-all Student Athletes' Achievement Motivation	0.86	0.00	Rejected	Significant

The results of this study imply a strong correlation between coaches' transformational leadership and athletes' achievement motivation. The degree of correlation suggests that student athletes' achievement motivation is significantly shaped and influenced by coaches' demonstration of transformational leadership, which includes modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. The results highlight how important it is to use positive and transformative coaching techniques. Student athletes' motivation levels are greatly impacted when coaches exhibit traits like leading by example, inspiring, challenging, enabling, and encouraging. In real terms, this means that by purposefully including these particular leadership behaviors into their coaching method, coaches may directly influence how motivated athletes are to achieve their goals. It draws attention to the areas in which athletes' performance could be enhanced as well as their general drive and dedication to succeeding in their chosen sports. In summary, coaches have a significant impact on athletes' motivation and thinking by using intentional and transformative leadership techniques.

5. Conclusions

The study's presented findings led to the researcher's formation of the following conclusions:

- 1) Based on the results, there are no significant differences in how student athlete respondents assess their coaches' transformational leadership behavior. This holds true across factors like sex, age, and sports area. The data suggests that these demographic variables do not significantly influence how student athletes perceive their coaches' transformational leadership qualities, including modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart.
- 2) Based on the results, it can be concluded that there are no significant differences in the assessment of the respondents regarding their level of achievement motivation in terms of achievement,

power, and affiliation when considering factors such as sex, age, and sports area. The data suggests that these demographic variables do not significantly impact the way student athletes evaluate their achievement motivation.

3) The results reveal a significant relationship between coaches' transformational leadership and student athletes' achievement motivation in terms of achievement, power, and affiliation. This underscores the crucial role of positive coaching techniques, where athletes' motivation is greatly influenced by coaches who lead by example, inspire, challenge, enable, and encourage.

A motivating coaching program was suggested by the researcher as a result of this wonderful study. This is techniques to encourage and assist student athletes in achieving the goals they have set. It entails coaching methods intended to improve confidence, increase motivation, and promote both professional and personal development.

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