



**THE DIFFERENCES IN GENDER, WUSHU CONTENTS OF  
PERSONALITY TRAITS AND ACHIEVEMENT MOTIVATION –  
A CASE STUDY OF VIETNAM PROFESSIONAL ATHLETES<sup>i</sup>**

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**Abstract:**

The purpose of this study was to find out the differences between male and female Wushu athletes, in line with Taolu and Sanshou contents due to their personality and achievement motivation as the nature of Games. By using the general research methods in sports, the results of this study indicated the liveliness personality in avoid fail of males was higher than females Sanshou athletes. Besides, female Taolu athletes have higher scores of dominance and liveliness personalities in total achievement motivation than Sanshou athletes, while female Sanshou athletes have higher scores of liveliness personality in “avoid fail” than Taolu athletes. Moreover, the results did not have the outstanding personality traits in any levels of achievement motivation and no differences between Taolu and Sanshou contents in male professional athletes. In short, males Sanshou athletes should focus on liveliness personality with “avoid fail” in achievement motivation. Female Taolu athletes may pay attention on dominance and liveliness personalities through “total motivation”, while female Sanshou athletes were in good of liveliness personality through “avoid fail” motivation.

**Keywords:** personality, achievement motivation, Taolu & Sanshou contents, genders, Wushu professional athletes

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## 1. Introduction

Wushu is the direct-encountered sport, thus mental stressful is one of the nature of Games. In competition, athletes have the constant in unmatched transformation patterns and the changing tactics. Taolu in Wushu involves martial art patterns and maneuvers, which given points under the specific rules with many movements such as kicks, punches, jumps, sweeps, throws, etc., While Wushu Sparring (or Sanshou) is an unstoppable martial art fighting method with bare hands in real-life combat. Previous studies noted that the changes in biological ([Lenroot & Giedd, 2010](#)), cognitive ([Blakemore et al., 2010](#)), and psychosocial ([Rice & Mulkeen, 1995](#)) functioning occur in adolescence, which could affect personality traits and their development in any kinds of sport. In order to win a competition, athletes have not only a mastery techniques, good tactics or high physical fitness, but they also need a good respond mentality which has the close relation to their personalities. Personality refers to individual differences in characteristic patterns which defines as the set of habitual behaviors, cognitions and emotional patterns that evolve from biological and environmental factors (Corr & Matthews, 2009). Moreover, an individual's needs and motivation both have a highly effect on the direction of their behavior (Rabideau, 2005). In sport psychology aspect, the highest aspiration was called the achievement motivation (Cattell, 1989). David McClelland's research into achievement motivation (Mishra, 2015) noted that one characteristic of achievement motivated athletes is that they see to be more concerned with personal achievement than with the rewards of success. He believed that athletes did not reject rewards; however, it was not essential as the accomplishment itself. According to Atkinson (1964) indicated that athletes in competition had two main motivations such as achieve success and avoid failure. The motive to achieve success is determined as the need to succeed, the person's estimate of the success in performing the particular task and the incentive for success. While the motive to avoid failure is determined as the same points in achieve success which turn to failure. Furthermore, reaching the perfect state of motivation, the self-motivation needs to be concerned as the purpose of competition goals. Thus, there was an important meaning (in theoretical and practical skills) in studying about the specialize personalities of Wushu athletes and the correlation between these personalities to achievement motivation in Taolu and Sanshou content and the differences in genders.

## 2. Methodology

### 2.1. Sample

134 Wushu elite athletes (aged 18-25) were selected (with at least 3-year training, good mentality and elite athletes) and randomize chosen in Wushu team at National Sport Training Center. The number of athletes in Taolu content were 30 females and 24 males. While the number of athletes in Sanshou were 25 females and 45 males. They were informed of the test procedures before providing the written consent form.

## 2.2. Instruments

The Sixteen Personality Factor questionnaire (16PF) was established by Cattell (1946) through a questionnaire study, which was a validity and reliability tool to evaluate the personality and human behavior. Sixteen factors in personalities were independent each other and the correlation among them was minor. Each question had three options to answer (187 questions). Table 1 described the personality traits which measured by 16PF Questionnaire.

**Table 1:** Personality traits by 16PF Questionnaire (Cattell, 2003)

Low range	Factors	High range
Reserved, impersonal	Warmth (A)	Warm-hearted, caring
Concrete thinking, lower mental	Reasoning (B)	Bright, higher mental capacity
Changeable, reactive, affected	Emotional Stability (C)	Emotionally stable, adaptive
Deferential, cooperative	Dominance (E)	Dominant, assertive, forceful
Serious, careful, restrained	Liveliness (F)	Animated, enthusiastic
Expedient, non-conforming	Rule-Consciousness (G)	Conscientious, dutiful
Shy, timid, threat-sensitive	Social Boldness (H)	Socially bold, uninhibited
Objective, tough-minded, un sentimental	Sensitivity (I)	Sensitive, tender-minded, aesthetic
Trusting, unsuspecting	Vigilance (L)	Vigilant, suspicious, wary
Grounded, prosaic, solution oriented	Abstractedness (M)	Abstract, imaginative, impractical
Forthright, genuine, artless	Privateness (N)	Private, discreet, polished
Self-assured, confident	Apprehension (O)	Apprehensive, self-doubting
Traditional, conservative	Openness to change (Q1)	Experimental, liberal, analytical, critical, flexibility
Group-oriented, dependent, affiliative	Self-reliance (Q2)	Self-reliant, solitary, individualistic
Tolerates disorder, unexacting	Perfectionism (Q3)	Perfectionistic, self-disciplined
Relaxed, placid, patient	Tension (Q4)	Tense, high energy, driven

Individual Difference in Achieving Tendency Questionnaire (IDIAT) by Mehrabian and Bank (1978) based on the scale of Atkinson (1964) with 38 items comprised achieve success and avoid fail, which was a reliable tool to evaluate the personal achievement motivation. Using 9-scale of Likert from “completely agree” to “almost disagree”. Each question had 9 levels of grade. The total achievement motivation in wining (Sum motivation) was the grade of “achieve success” minus the grade of “avoid fail”. The higher points you got in “sum motivation”, the better achievement motivation you were.

## 2.3. Statistical analysis

Data collection performed in four different times as four different kinds of participants (i.e. female Taolu, male Taolu, female Sanshou and male Sanshou) around a month which were analyzed using SPSS for Windows (version 20) and Microsoft Excel 2010 software. Descriptive analysis was used to identify the mean, standard deviation, variances of each achievement motivation. The z-score test was used to evaluate the differences between

personality traits and achievement motivation in genders, Wushu contents where it was in 95% confidence interval ( $\pm 1.96$ ) (Cohen & Holliday, 1982).

### 3. Results and discussions

#### 3.1. The differences between personality traits and achievement motivation in genders of Wushu Taolu athletes

Table 2 showed the difference between males and females Wushu Taolu athletes.

**Table 2:** The z-scores between males and females Taolu athletes

Personality traits	Achieve success	Avoid fail	Total motivation
Warmth	-0.377	-0.427	0.0561
Reasoning	0.0488	0.404	-0.279
Emotional stability	0.184	0.677	-0.374
Dominance	0.892	-0.033	0.587
Liveliness	0.503	-0.839	0.884
Rule-consciousness	-0.828	-0.252	-0.383
Social boldness	-0.157	-0.176	0.038
Sensitivity	-1.111	-0.953	0.000
Vigilance	0.022	-0.317	0.190
Abstractedness	-0.246	0.265	-0.386
Privateness	0.020	-0.192	0.178
Apprehension	-0.695	0.245	-0.589
Openness to change	-0.373	0.512	-0.602
Self-reliance	0.064	-0.627	0.535
Perfectionism	-0.477	0.206	-0.487
Tension	-0.285	0.509	-0.529

The results in Table 2 indicated that there was none significant difference between genders of Taolu athletes in personality traits and achievement motivation. Therefore, the correlation levels in achievement motivation between males and female Taolu athletes' personality were negligible. It means that males and female Taolu athletes in each personality traits and achievement motivation were nearly the same.

#### 3.2. The differences between personality traits and achievement motivation in genders of Wushu Sanshou athletes

Table 3 showed the difference between males and females Wushu Sanshou athletes.

**Table 3:** The z-scores between males and females Sanshou athletes

Personality traits	Achieve success	Avoid fail	Total motivation
Warmth	-0.059	1.393	-1.324
Reasoning	-1.284	-1.341	0.261
Emotional stability	0.0718	0.327	-0.329
Dominance	0.136	1.414	-1.322
Liveliness	0.396	<b>2.137<sup>(*)</sup></b>	-1.636
Rule-consciousness	-0.891	-0.934	0.191
Social boldness	0.328	0.493	-0.229
Sensitivity	-1.272	-1.082	0.024
Vigilance	-0.506	0.219	-0.597
Abstractedness	-0.674	-0.477	-0.121
Privateness	0.957	0.547	0.214
Apprehension	0.417	-0.327	0.701
Openness to change	-0.684	-0.790	0.112
Self-reliance	0.255	-0.909	1.010
Perfectionism	0.229	0.577	-0.337
Tension	-0.191	-1.022	0.815

(\*) The difference was significant at the .05 level (2-tail).

The results in Table 3 indicated that there was a significant difference between male and female Sanshou athletes in Liveliness of personality through the “Avoid fail” of achievement motivation, while the others showed none. It means that the tendency of Liveliness in “Avoid fail” of male Sanshou athletes was higher than females. The high of Liveliness means acting carefully, thinking closely and calmly; Thus, in this characteristic of athletes in Taolu content, they can calmly observe the opponent’s expression and be in good preparation of defense. It is clear that they are good in “avoid fail”. In the opposite way, the lower liveliness of athletes is, the more difficulty in actively offense and passive defense. However, the high liveliness personality of athletes means that they may sometimes be too impulsive and even careless. In competition, once the opponent catches their movement in offense, it may lead to failure the Game. Therefore, the higher the liveliness score, the lower the “avoid fail” does. In our study, the higher score in Liveliness of male Sanshou athletes than females caused with the same reason as mentioned above, which may explain due to the differences of genders properties.

### 3.3. The differences between Taolu and Sanshou contents in personality traits and achievement motivation of male Wushu professional athletes.

Table 4 showed the difference between Taolu and Sanshou contents of male Wushu professional athletes.

The results in Table 4 indicated that there was no significant difference between Taolu and Sanshou contents of male Wushu professional athletes. It means that the tendency of personality traits with the level of achievement motivation had a minor relation, which may be explain as the differences in the nature of Wushu contents. Taolu content have a gently environment competition when compared with Sanshou content

(had higher encounter attack properties). Therefore, in our study, the difference in competition environment may explain the none difference between two Wushu contents in male professional athletes.

**Table 4:** The z-scores between Taolu and Sanshou in male professional athletes

Personality traits	Achieve success	Avoid fail	Total motivation
Warmth	0.192	-0.961	1.007
Reasoning	0.149	0.952	-0.577
Emotional stability	-0.486	0.862	-1.078
Dominance	-0.414	-0.293	-0.074
Liveliness	-0.360	-0.513	0.197
Rule-consciousness	-0.126	-0.056	0.037
Social boldness	-0.282	0.046	-0.287
Sensitivity	0.731	-0.753	1.100
Vigilance	-0.840	-0.117	-0.505
Abstractedness	-0.801	0.760	-1.208
Privateness	-0.182	-0.417	0.118
Apprehension	-0.397	-0.371	0.007
Openness to change	-0.419	1.420	-1.510
Self-reliance	0.336	0.354	-0.184
Perfectionism	-0.546	0.272	-0.531
Tension	0.447	0.852	-0.312

### 3.4. The differences between Taolu and Sanshou contents in personality traits and achievement motivation of female Wushu professional athletes.

Table 4 showed the difference between Taolu and Sanshou contents of female Wushu professional athletes.

**Table 5:** The z-scores between Taolu and Sanshou in female professional athletes

Personality traits	Achieve success	Avoid fail	Total motivation
Warmth	-0.510	-0.859	0.374
Reasoning	1.183	0.793	0.036
Emotional stability	0.598	-0.51	1.033
Dominance	1.169	-1.155	<b>1.984<sup>(*)</sup></b>
Liveliness	0.467	<b>-2.463<sup>(*)</sup></b>	<b>2.324<sup>(*)</sup></b>
Rule-consciousness	0.189	0.739	-0.617
Social boldness	-0.203	-0.712	0.554
Sensitivity	-0.569	0.883	-1.125
Vigilance	1.368	-0.419	1.293
Abstractedness	1.229	-0.018	0.947
Privateness	-0.754	-0.322	-0.1544
Apprehension	-0.716	0.944	-1.298
Openness to change	0.730	-0.119	0.796
Self-reliance	-0.528	-0.071	-0.291
Perfectionism	-0.161	-0.643	0.381
Tension	-0.540	0.680	-1.033

(\*) The differences were significant at the .05 level (2-tails).

The results in Table 4 indicated that there were significant differences in Liveliness (through “Avoid fail” and “Total motivation”) and Dominance personalities (through only “Total motivation”), the others showed none. It means that female professional athletes in Taolu have higher scores of “Dominance” and “Liveliness” in “Total motivation” than female Sanshou athletes. In the opposite way, female professional athletes in Sanshou have higher scores of “Liveliness” in “Avoid fail” than female Taolu athletes. A person who had low score in “Liveliness” personality relatively passive and anxiety expression. They also acted cautiously, poor emotions; Thus, this type of person had negative expectation, in line with the achievement motivation was not strong. In the nature of competition in Wushu, they were not suitable under the intensity of the Game – high direct encounter situations continuously. Therefore, this answered the high in “Total motivation” of “Dominance” and “Liveliness” personalities of Taolu professional athletes. In the opposite way, a person with high “avoid fail” in Liveliness were energetic but full of emotions. They had an advantage in Sanshou contents through their sublime emotion. They easily got high scores, thereby it made them more confident to show themselves in martial art moves. The more their goals are (in our study was “avoid fail” in Sanshou content), the more hopeful they were for success and the more powerful in achievement motivation.

#### **4. Conclusions**

In short, males Sanshou athletes should focus on liveliness personality with avoid fail in achievement motivation. Female Taolu athletes may pay attention on dominance and liveliness personalities, while female Sanshou athletes were in good of liveliness personality through avoid fail motivation.

#### **Authors' contributions**

Hanh, Le Thi My (main author) drafted, wrote down, and revised the manuscript while the other author Tuan, Tran Minh took a control in revising and editing the manuscript after all. Both authors have approved the latest paper of this manuscript. We both agreed with the order of the presentation.

#### **Competing interests**

Both authors declare that they have no competing interests.

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