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3×2 성취 목표 지향 프레임워크와 애착 스타일이


다른 대학 선수들의 성격 사이의 상관관계

The Intercorrelation Relationship Between the

3×2 Achievement Goal Orientation Framework

and Personality of Collegiate Athletes with

Different Degrees of Attachment Style

The logo of Pukyong National University is a circular emblem. It features a stylized 'P' and 'K' intertwined in the center, with the university's name in English 'PUKYONG NATIONAL UNIVERSITY' around the top and in Korean '부경대학교' around the bottom.

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Degrees of Attachment Style

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The Intercorrelation Relationship Between the 3×2
Achievement Goal Orientation Framework and Personality of
Collegiate Athletes with Different Degrees of Attachment Style

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Abstract

This Research aims to clarify the relationship between achievement goal theory, personality traits in the Big Five domain, and the attachment style among collegiate athletes. By using The Big Five Inventory-2 (BFI-2), 3×2 Achievement Goal Orientation Questionnaire for Sport (AGQ-S) and the Attachment Style Questionnaire (ASQ) as questionnaires to test the intercorrelation between variables, this study recruited collegiate athletes from Chinese universities. Through analysis, these study results found out that the Big Five personality traits are correlated with achievement goal orientations, but only responsible for some part of the variability of goal orientations. These study results also indicated that these athletes' attachments only have extremely low correlation relationships with personality traits and with goal

orientations. However, this study also indicated that the Big Five personality traits are not good predictors for athletes' achievement goal orientations and attachment styles.

Key word: The Big Five, Attachment, Achievement Goal Orientation, Athletes.



1. Introduction

The theory of personality has a long history of research, and until the last century, the scientific research on personality started to flourish with the foundation of the field of psychology. Based on Hogan, Hogan and Roberts 's definition, personality is a set of stable internal components which could be used to explain the rather constant and unique patterns of human behavior (Hogan et al., 1996). One of the primary functions of learning human personality is for individuals to avoid danger from unfamiliar environments and to feel safe. Many approaches were used during the development of personality psychology. One of the approaches to learning personality is through the trait approach, and another approach that has recently received a lot of attention is the social-cognitive approach. One of the dominant theories within the trait approach is the Big-Five framework. Based on the framework, five factors are applied to conceptually describe the personality, which are the Extraversion, Openness, Neuroticism, Conscientiousness, and Agreeableness.

One of the methods for learning personality through the social-cognitive approach is to use the achievement goal orientation theory. Much achievement motivation research is mostly based on the examination of the concept of individuals' achievement goals (Rawsthorne & Elliot, 1999). The definition of individual's achievement goals is when individuals face competence-based activities or acts, the reason or purpose for

their actions(Ames, 1992; Maehr, 1989).

Attachment has been proven to be one of the consistent and stable factors inside the relationship between parents and children during early development and could influence children's emotional and social development even beyond middle childhood. Bowlby (1969) proposed individuals with already formed attachment predispositions would develop different types of bonds with their caregivers, initially starting from the period of infancy. Based on Bowlby's article findings on attachment theory (Bowlby, 1969; 1973, 1980, 1982), the definition of attachment theory was postulated as the bonds formed between individuals and their proximate care-giver with influences from biological predispositions. Started as early as the period of infancy, humans begin to develop proximity to their significant others to maintain and restore safety. Affect, cognition, and behaviors which were caused by the differences in the responsiveness of caregivers to infants were categorized into the concept of attachment (Carr, 2009).

Based on the attachment theory, a secure feeling and help-seeking activities that formed during the transition from the period of infancy to adolescence from the caring and support experiences of their attachment figures would protect them when they are facing stressful situations and assist them to explore further social environments (Duchesne & Larose, 2007). In Ainsworth et al. (1978)'s article, they categorized the attachment into three styles between individuals and their caregiver. Children who form a secure attachment style with their caregiver are

believed to become trusting and confident children who will not be bothered or obsessed by the lack of caregivers' response, support, and security. Children with an anxious or ambivalent attachment style, which is caused by the inconsistency of their caregiver's response to children's demands, are believed to develop anxious and clinging emotions when their caregivers are absent. When caregivers generally apply neglect and rejection to their children, these children would normally form an avoidant attachment style, and these children would be expected to exhibit emotional distance and less affection (Ainsworth et al., 1978).

A few studies have indicated the association between personality traits and attachment styles, but few studies were construed in the sport domain. Shaver and Brennan (1992) found that a significant correlation relationship existed between the three different styles of attachment styles and more than three personality traits in the Big Five framework. One of the postulations in the article is that even though, according to the data results, some of the Big Five personality traits and parts of facets inside every trait did show a significant correlation relationship with the three different styles of attachment, those attachment styles should not be regarded as excess parts of the Big Five personality. The reason is that attachment styles are specific constructs for personal relationships, but the Big Five personality traits are not so content-specific (Shaver & Brennan, 1992). One of the functions of the Big Five is to distinguish individuals from each other in general. It would be difficult to use the traits of the Big Five to

predict specific actions and outcomes. Similar research on the correlation were less common among the sport domains. For athletes, whether the same correlation would appear during research is one of the aims of this study.

Even though the trait approach and the social-cognitive approach share the aim, the explanation for the relationship between personality and performance (Funder, 2001), few studies were related to the associations between the Big-Five personality model and the framework of achievement goal orientations. Based on the research of Zweig and Webster (2003), their research result of the relationship between achievement goal orientations and the Big-Five personality model among university students' intention to performance postulates that even though the three different achievement goal orientations have significant relationships with some of the personality facts, the goal orientations are distinct factors from the general personality traits. One of the purposes of this paper is to investigate the significant relationship between goal orientations and the Big-Five personality factors that continue to exist among athletes with the updated 3×2 model goal orientation framework.

The relationship between attachment theory and achievement goal theory was investigated by researchers in other domain, for example, the study conducted in academic settings by Elliot and Reis (2003). The study, which focused on the exploration system, indicated that individuals with secure attachment would conduct more exploration and have less fear of failure, compared to insecure individuals in adulthood.

The results also showed the insecure attachment would elicit avoidance-related motivations during exploration in adulthood (Elliot & Reis, 2003). Based on the idea of Elliot and Reis (2003), even though the research was conducted in academic settings, the results could also be applied to sports settings because of the same competence concerns in academic settings and in sports settings. On the other hand, with the introduction of the newer model of achievement goal theory, the 3×2 model of achievement goal theory, the impact of three different attachment styles on the new 3×2 model framework is another aim of this paper.

This paper was construed based on the two main goals in mind. The first goal is to investigate these associations between Big Five personality traits and achievement goal theory, big personality and attachment theory, and attachment theory and achievement goal theory in other domains could fit into the research results from sports athletes. Few studies have been conducted to investigate the generalizability of these associations in the sport domain. Because all of the research participants were recruited from China, the second goal is to investigate whether the research on these associations from western studies could apply to the research participants from China, one of the countries with great Eastern cultural impact. Culture differences could be one of these factors causing these different association results.

2. Background

2.1. Personality

The development of personality started at the origin of humankind. The human species developed a series of methods for determining the personalities of different people to understand people and to avoid being in dangerous situations. Since the early days of ancient Greece, people have started to develop methods to determine personalities. Until the late 19th century and early 20th century, the popularity of psychology brought by Freud led to more and more scientific approaches to studying and defining personality.

Even though Freud led the whole western society and the public to learn and pursue the scientific field of psychology, and was very interested in the topic of personality, the field of personality was not a separate subfield until the middle of the 20th century. In 1924, Time magazine put Freud on the cover of their magazine (Fancher, 2000). Personality has also received attentions from fields of research besides psychology, like psychopathology, psychiatry, sociology, education, and social work since the start of the 20th century. One of the factors that could contribute to the increasing interest in personality could be that the field of psychoanalysis started to have increased effects on these fields, after 1909, the time when Freud visited the United States (Danziger, 1997). In the period of the 1920s and 1930s, sociologists put more focus on personality because of the shifts in social adjustment and social roles (Platt, 1998). Allport published the first American

review on “personality and character” in 1921 (Allport, 1921). Inside this article, many citations were related with the concept of trait, which proved that at that time of research, trait concept had already shown its dominance in the theoretical field of personality research. In the review, Allport brought up the question of the interchange usage between “personality” and “character” among American psychologists. According to Allport’s suggestion, the definition of “character,” which is “the personality evaluated according to prevailing standards of conducts” is not suitable for use in a scientific manner (1921). Later, in the year of 1927, Allport promoted the proposal that the word “personality” should be used more in the scientific field because of its objectivity (Allport, 1927). The field of psychology soon accepted this proposal, and then the problem of interchangeable word usage between “personality” and “character” was resolved. Psychometric field of personality was rapidly developed in the late 19th century and early 20th century. Based on the tests and measurements of IQ tests, psychologists developed a series of personality tests (Young, 1928). The Personal Data Sheet created by Woodworth (1919) was the first personality test at that time. The chapters related to personality in general psychology textbooks were increased significantly in the 1920s, and it was not until the early 1930s that the field of personality became an independent course in many psychology departments at universities (Parker, 1997).

In the early 19th century, two approaches of study psychology were recognized, which are: “the study of individual differences,” which means the study of the differences between people, and “the study of

individual persons as unique, integrated whole” (Barenbaum & Winter, 2008). The study of individual differences, which postulated the study of how humans differ from each other, was regarded as the method psychologists normally used, and the second method was regarded as the method psychiatrists, psychoanalysts, and sociologists used (Barenbaum & Winter, 2008). The debate between the two methods was later developed as the debate between “qualitative” and “quantitative” inside the field of psychology. Windelband (1904) was the first person to mention the differences between the two methods, and in his terms, the debate was recognized as nomothetic-idiographic dichotomy, which was still an issue inside the field of psychology.

From the point of view of the quantitative approach, Murphy (1932) constructed the definition of personality as the “sum of all of an individual’s traits” (p. 386). By utilizing the results of intercorrelation relationships between personality traits from measurements, psychologists using the quantitative approach would be able to generate predictions, produce modification, and even form manipulation about human behaviors (Barenbaum & Winter, 2008). Psychologists using the qualitative approach generally study the lives of individual people to understand how and when personality traits develop and are nourished. The method of studying personality of individuals was regarded as old-fashioned medical methods started from early 20th century, and this method were used by few psychologists until the late of the century, despite promotions from Allport (1937) and Murray (1938) emphasizing the importance of studying personality of individuals. Currently, the

argumentation of two approaches, which are the study of individual personality differences between humans and the study of individual personality differences by using case studies, within the study of personality psychology has reached a truce.

Allport was considered as “the father and critic of the Five-Factor Model” (John & Robins, 1993). In his doctoral dissertation, Allport adopted his view from behavior psychology on personality traits, which the fundamental elements of personality with carefully designed measurements (Barenbaum & Winter, 2008). Allport’s definition of personality traits was changed as he worked more and more on this field. During his postdoctoral years of study, Allport learned more about personality from other points of view in psychology, for example, Gestalt psychology, Eduard Sprenger’s method, and William Stern’s personalistic view of personality. During his years at Harvard, Allport believed he started the teaching of the first personality courses among American colleges in 1924 (Allport, 1967). However, the first course of personality was taught by Kimball Young in 1920 (Barenbaum, 2000). In his text, Allport (1937) refined the definition of the field of personality, changing the attention of personality psychologists from “the factors shaping personality” to “personality itself” (p.viii). His point of view of traits was shifted, and he added the proposition that the traits are the neuropsychic systems carrying motivational dispositions (Barenbaum & Winter, 2008). Allport’s pioneering research in personality traits lexical study and his proposal on the theory of personality, that having only one descriptive taxonomy was not sufficient to draw a

whole picture of traits (Allport & Odbert, 1936), enhanced the research and theory in the field of personality psychology.

Another famous personality psychologist, Raymond Cattell, helped to add and improve more methodological methods in the field of personality, like factor analysis and correlation coefficient. Cattell proposed that assimilating objective measurements into the study of personality would allow personality psychologists to describe the full structure of personality traits more easily (1946). With the help of the method of factor analysis, Cattell established his own personality trait structure, which is called "the 12 PF." The 12 PF represent the 12 primary traits of personality that Cattell and his colleagues acquired from their research using the lexical approach and the factor analysis method. The studies of Cattell further promoted personality psychologists that the measurements and the scales of rating are helpful during the research of personality and should be used in more personality investigations.

Traits were defined as a consistent pattern of behaviors (Barenbaum & Winter, 2008). The three main approaches psychologists used to study and research personality are: (1) when researchers want to investigate the external validity of the trait, they would often use the factor analysis approaches to discover the generalization of that trait, or trait category; (2) when researchers want to discover how to apply the methods or newly discovered systematic classification into sub-groups, they would often use the rational theorizing method; (3) when researchers want to determine the individual person's pattern of traits,

they would use the idiographic approach to identify the unique pattern of that particular individual. Allport and Odbert (1936) by carefully applying the lexical method into trait selection obtained 4500 traits, and then Cattell's Cattell (1943) work of research continued the research of selecting the suitable traits by employing the factor analysis method reduced the 4,500 traits to a workable number of trait clusters (Barenbaum & Winter, 2008). With more personality psychologists continuing their work based on Cattell's study as the fundamental research, they reached the same conclusion that the five factors, which are extraversion, agreeableness, conscientiousness, neuroticism, and openness, could form a nearly completed description of the personality trait domain (Barenbaum & Winter, 2008). Research would also infer their theories and research of personality traits from the folk concept. As for researchers who enjoy the idiographic approach, for example, the 1965 research composed by Allport, they would focus their research on the factors or patterns of individual personality traits and use those factor or patterns to influence and predict individual future behaviors.

Personality is related and interinfluenced with the concept of motivation because of the essential postulate inside the theory of personality that presume most behaviors are guided by a goal and during the time of pursuing the goal human would show intelligent differentiation and the behavior would respond to the circumstances of the environment whether the circumstances are opportunities or obstacles or even other goals (Barenbaum & Winter, 2008). Freud claimed motivation exists in every behavior and in his theory, he

divided human motivations into two categories: the life instincts which contains sexual motivations and the self-preservation and aggressive motives (Freud, 1955, 1957, 1959, 1964). However, Allport proposed the idea that adult human behaviors would receive less influence from those primitive drives like sexual motivations and aggressive motives Freud proposed, which he addressed this idea as the functional autonomy (1937). Even though the concept of functional autonomy was not accepted among psychologists when it was first brought to attention, with the development of research on motivation, the concept of functional autonomy contributed to the developments of the concept of actualization which illustrated into Ryan and Deci's work of self-determination theory (2000), the contrast between mastery orientation and the performance orientation inside the achievement goal theory (Elliot & Church, 1997), the contrast between motivation to desired target and the motivation to avoid aversive set of circumstances (Elliot et al., 2006) and the idea that human could create or receive new motivation from the culture influenced suitable age projects (Little, 1999, 2005).

In the early 20th century, research on personality was dominated by behaviorism and its learning research. After the definition of personality was formed, the situationists in the 1960s and 1970s critiqued the field of personality, which caused the whole field to improve and amend these fundamental research theories and methods. Around the turning point of the century, globalization added many other different cultures and social perspectives into the field of personality.

Before the 1980s, the research of field of personality had little structured guidance and lacked a scientific taxonomy that could encompass almost the full dimensions of their subject. Since the late 1980s, the research field of the Big Five personality traits, which could provide structured guidance and scientific taxonomy into the field of personality, started to flourish. The field of personality has formed a general agreement to use the Big Five personality research as the general taxonomy. Research on the Big Five was based on the fundamental work of natural language personality description. The lexical hypothesis, which was used by researchers in the natural language research of personality, postulates that most of the personality traits can be discovered in the natural language that people normally used (Oliver P. John, Laura P. Naumann, & Christopher J. Soto, 2008). By using this method, researchers derived their personality-relevant vocabulary from dictionaries. Allport and Odbert (1936) used the lexical method to conduct a study which searched for the vocabulary that is relevant to the description of personality traits in an English dictionary, and by the end of their research, they spotted around 18,000 factors related to personality traits. These research results guided personality psychologists to work on these 18,000 personality description factors for the next 60 years (Oliver P. John et al., 2008). Based on their research results, Allport and Odbert categorized four major types of descriptions related to personality traits: (1) personality traits associated with the stable tendencies of how people adjust to their environment and environmental changes, for example, sociable and fearful; (2) momentary

and brief moods and states of an individual, for example, afraid; (3) evaluated personal judgements, for example, excellent, average; (4) psychical characteristics and talents, and other vocabulary related to personality (Oliver P. John et al., 2008). Based on Allport's research classifications, Norman expanded those categories into seven types: "the enduring traits, the internal states, physical states, the activities, the effects, the roles, and social evaluations" (Oliver P. John et al., 2008). Even though classifications by Allport and Odbert (1936) and Norman (1967) divided these terms into different categories, some of these definitions of categories did overlap with each other in some areas. To solve this problem, Chaplin et al. (1988) came up with a new prototypical conception that, rather than being defined by categories boundaries, defines the categories by the conditions of that category. Cattell's pioneering work (1943) of trying to provide a systematic framework for personality psychology was established based on the 4,500 terms of traits belonging to the classification research of Allport and Odbert (1936). By using semantic and empirical clustering approaches, even with the limitation of data analysis, Cattell's research trimmed the 4,500 trait terms into 35 variables. Cattell did not stop at the 35 variables. His continued factor analysis eliminated the 35 variables into 12 factors, and with the other 4 factors, they constituted his famous 16 Personality Factors (16PF) questionnaire (Cattell et al., 1970).

Established upon the elimination results of Cattell's 22 variables, Fiske (1949) first constituted simplified descriptions and the factor structures,

which are very similar to the structure of the Big Five. Tupes and Christal (1961) conducted another analysis of data collected from eight samples in order to continue interpreting these factors and discovered five factors that are comparably strong with each other. Following the research work of Tupes and Chrsital (1961), research experiments created by Norman (1963), Borgatta (1964), and Digman and Takemoto-Chock (1981) all discovered the five-factor structure. In the journal of Norman (1963), the five-factors were named as (I) Extraversion or Surgency; (II) Agreeableness; (III) Conscientiousness; (IV) Emotional Stability; and (V) Culture. These factors, which were refined and relabeled with the development of personality psychology in the last several decades, were named the “Big Five” by Goldberg in 1981. The reason for choosing this name was intended to indicate the broadness of these five factors inside the personality. However, the Big Five dimension of personality traits does not suggest that these five factors are the only five factors inside personality structures. Each dimension of the Big Five structure was assigned to a number of specific personality traits and characteristics.

The increasing amount of research on the Big Five raised another problem: that the questionnaires used by most researchers are not unified. The majority of personality questionnaires developed by psychologists were overlapped over two main dimensions of the Big Five, Extraversion and Neuroticism. The other factors during the analysis were different between the questionnaires. The problem was resolved by the publication of Costa and McCrae’s (1985) NEO

Personality Inventory, which was created mainly to measure the Neuroticism, Extraversion, and Openness to experience dimensions of the Big Five at first. The proposal of Cattell's (1970) 16PF provided a research foundation for the research of Costa and McCrae and assured the influence of Openness on personality research. In 1983, during the research process, they found out that their personality questionnaires encompassed three dimensions of the Big Five and left the domains of Agreeableness and Conscientiousness out of the questionnaire. Therefore, they added measures of scales of Agreeableness and Conscientiousness into their model, and by the time the journal was published in 1985, the NEO Personality Inventory demonstrated the full coverage of measurements of all the five domains of the Big Five, despite the extension of the conception of Openness (Saucier & Goldberg, 1996). However, the first edition of the NEO Personality Inventory did not include the six facet scale measurements of the Agreeableness and Conscientiousness. Seven years later, in 1992, the 240-item NEO Personality Inventory-Revised (Costa & McCrae, 1992) was published with measurements of six more detailed facets in every dimension of the Big Five (Oliver P. John et al., 2008). One of the defects of the NEO Personality Inventory-Revised (NEO-PI-R) was the large portion of measurement items inside the questionnaire. To solve this issue by providing a short version of measurement, Costa and McCrae (1989, 1992) proposed the NEO-FFI questionnaire with only 60 items. For each dimension of the Big Five, 12 items that represented the essences of each dimension were measured. The NEO-FFI has a

decent reliability of .78 and has an adequate correlation with the measurement of NEO-PI-R (Costa & McCrae, 1992).

One of the issues with the Big Five structure of why it was not widely accepted by other senior psychologists was that too many labs and research studies initiated different proposals of the Big Five structure, so clear definitions of the Big Five and each factor in the Big Five were needed. One of the methods used to resolve this issue by psychologists was using human judges to abstract the accepted trait elements from findings by using the 300 items inside the Adjective Check List (ACL; Gough & Heilbrun, 1983) as the basic principle (Oliver P. John et al., 2008). The research was conducted in 1988, so judges needed to learn most of important the published articles and journals about the Big Five. Based on the 300 items, these expert judges categorized 112 terms into one of the Big Five categories. Those descriptive traits vocabulary formed the foundation of the Big Five Inventory. Based on the research result, the sub-division of the Extraversion dimension consists of “activity level, dominance, sociability, expressiveness, and positive emotionality” (Oliver P. John et al., 2008), which are similar when compared to five of Costa and McCrae’s (1992) six facets of Extraversion. The six facets of Extraversion described by Costa and McCrae (1992) is warmth, which was classified into the dimension of Agreeableness. Besides the warmth, the rest of the components under Agreeableness, tender-mindedness, altruism, and trust, are like Costa and McCrae’s facets inside Agreeableness. The argument about whether to include the factor of intelligence into Factor

V, which was labeled as “Culture” at first, was resolved by the research from lexical studies, adjective studies, and the NEO measures. With all research and measurements supported, intelligence was removed from Factor V and relabeled as Openness. The facets of the Openness dimension are related to fantasy, thoughts, and aesthetics (Costa & McCrae, 1992).

The Big Five Inventory (BFI) was composed to provide measurements for the prototypical components for each of Big Five dimensions (John et al., 1991). To achieve greater consistency, the BFI uses short phrases on the traits for the 44 items. Although the NEO questionnaires have the best validation among personality questionnaires, the BFI provides easier to understand questionnaires in a time-consuming setting with considerable consistency and validation.

2.1.1. Personality and Sports

At the beginning of the twentieth century, Coleman Griffith integrated personality into the teaching of psychology of sport and performance (1926; 1930). Even in the stagnated period between the 1930s and 1960s for sport and exercise psychology (Weinberg & Gould, 2011), personality-related sports psychology research continued to develop (Allen et al., 2013). In the 1960s and 1970s, over 1000 studies related to personality in sports were published (Fisher, 1984). However, in the last decades of the sport psychology field, few studies have been published related to personality. Even though researchers did not abandon the factor of personality in sports psychology, their attention, interests, and focus were shifted to other aspects of sport psychology, like trait

anxiety, hardiness, and mental toughness (Auweele et al., 2001).

One of the problems of researching personality in sports settings is applying the personality sports research from other settings, like academic settings, into sports settings. In sports settings, athletes' capacities, and willingness to perform are two factors which could determine at least part of their success. The personality domain takes control of the capacity factor and the willingness to perform factor (Poropat, 2009). Although it seems research on personality and sports performance should eliminate the problem, the problem continues to that exist because of the differences exists in the domains, for example, the factor of optional endeavor inside competitive sport settings. One method used by researchers to investigate the relationship between personality and performance is to investigate the differences in personality test scores between athletes with a low level of sport performance and those with a high level of sport performance. Studies conducted with small sample numbers demonstrated few differences in personality between elite level of athletes and recreational-level athletes (Davis & Mogk, 1994; Frazier, 1987; Gat & McWhirter, 1998). However, when studies conducted with larger sample numbers shown that elite athletes tend to be more extraverted and emotionally stable compared to recreational-level athletes (Egloff & Gruhn, 1996; Kirkcaldy, 1982; Williams & Parkin, 1980). International and national level athletes have been shown to have low scores on neuroticism and high scores on conscientiousness and agreeableness, compared to athletes in regional or club competitions (Allen et al., 2011). Based on

the research conducted by Morgan (1968) and Rogulj et al. (2006), the finding showed that in one competitive sports competition, the personality related measurements could not be utilized to predict the success of the match. To continue studying the effects of personality on athletes' long-term performance, researchers came up with another two methods to conduct studies, which are: the method to see the intercorrelation relationship between scores of personality tests and factors that influences the athletes' performance for the whole season and the method to study the personality differences between athletes who have reached professional level and athletes who have not reached the professional level of performance yet (Allen et al., 2013). With the help of many studies on this topic, for example, Aidman (2007), Gee et al. (2010), and more, one postulate was suggested that personality would help in prediction of athletes' long-term success rather than short-term success (Allen et al., 2013).

Personality researchers focused on the relationship or influences between personality and success-related behaviors to see whether there are short-term effects of personality on athletes. One of the studies conducted in the United Kingdom revealed that among those gymnast participants, the level of conscientiousness was positively correlated with the preparation quality among gymnast athletes before competition, and the level of emotional stability was positively correlated with the quality of coping skills even during the competition (Woodman et al., 2010). Many other studies explore the effect of personality on mental states in athletes. For example, one finding shows that for athletes who

score low on the personality factors of agreeableness, extraversion, and/or emotional stability, they would be more likely to engage in aggressive behaviors compared to other athletes with different levels of personality factors (Trninić et al., 2008).



2.2. Achievement Goal Orientation.

For the past decades, research on competence motivation has put more attention on achievement goals. In the late 1970s and early 1980s, research and theoretical work on achievement goals started to increase. The concept of competence received a census and it is at the center of the definition of achievement (Elliot & Dweck, 2005). The competence defined as the ability to do something well in the Oxford English Dictionary, and achievement represents during tasks or activities whether individuals could finish the tasks or activities well or poorly (Elliot & Hulleman, 2017). Between achievement goal theorists, the census definition of a goal is that it serves as the purposes to individual behaviors. However, the purpose could be classified into two distinctive approaches. The first approach conceptualizes purpose as the underlying reason for an individual's behavior engagement, and the second approach conceptualizes purpose as the aim or end state that gives guidance to an individual's behavior engagement (Elliot & Thrash, 2001). Some achievement goal theorists view the purpose as a combination of aim and reason. Combining achievement and goal together, the definition of the achievement goal which received many agreements from achievement goal theory could be interpreted as the purpose or reason why individuals engaged in behaviors that are competence related (Elliot & Hulleman, 2017).

The purpose of an achievement goal is to create a framework which could be used to interpret the experiences and behaviors that individuals choose to engage in achievement settings. The two goal constructs,

mastery goals and performance goals, started to emerge in the 1980s (Elliott & Dweck, 1983). This model is often referred as the dichotomous model inside the achievement goal domain. The differences between the two goals are the focus on competence: goals that individuals try to achieve competence by mastering and improving task are mastery goals, and goals that individuals try to achieve competence by comparing competence related to others are performance goals (Mascret et al., 2015). Mastery goals were postulated to have positive effects on cognition and behavior procedures and outcomes, and performance goals were postulated to have undermining effects on cognition and behavior procedures and outcomes (Dweck, 1986). Inside these procedures, the perceived competence was posited to play an important role (Elliott & Dweck, 1988). Inside the dimensions of mastery goal and performance goal, two subdivisions of the focus competence were recognized by achievement goal theorists, standpoint of competence and the standard of competence. Standpoint of competence represents the individual's point of view of competence, whether it is developing (mastery goal) or demonstrating (Performance goal; Korn & Elliot, 2016). The standard of competence represents, during an evaluating individual's self-competence, the standard used by that individual, whether it is using the standard of task (mastery goal) or using the standard of others (Performance goal; Elliot & McGregor, 2001). From a different point of view, the standard of competence could be regarded as the aim of an individual's behavior engagement and the standpoint of competence could be regarded as the underlying reason

for an individual's behavior engagement (Elliot & Hulleman, 2017).

In the 1990s, the trichotomous model of achievement goals was proposed by Elliot and Harackiewicz (1996), based on the distinction between approach and avoidance, which the dichotomous model lacked. The trichotomous model applied the distinction to bifurcate performance goals into performance-approach and performance-avoidance goals. The trichotomous model contains the mastery goals, which are identical to the mastery goals in the dichotomous model, the performance-approach goals, which represent goals that individual trying to perform well compared to others, and the performance-avoidance goals, which represent goals that an individual is trying not to perform poorly compared to others. By using a negative outcome, the incompetence, as a regulation approach, the performance-avoidance goals were postulated to facilitate the undermining processes and patterns. As for the performance-approach goals, by using positive outcomes, the competence should produce positive processes and outcomes, but because of the focus on demonstrating competence related to others, the performance-approach goals also produce negative or undermining effects on processes and outcomes (Elliot & Hulleman, 2017). The role of perceived competence inside the trichotomous model was transferred to an antecedent rather than the moderator in the dichotomous model. A high level of perceived competence would be posited to generate more approach goals, which includes mastery and performance goals, and low level of perceived competence would be posited to generate more performance-avoidance goals (Elliot & Hulleman, 2017). Many

other antecedents exist inside the trichotomous achievement goal models besides the perceived level of competence, for example, the entity theory of ability, achievement motives, and temperaments.

Around the turn of the century, Elliot (1999) and Pintrich (2000) introduced the distinction between approach-avoidance into the mastery goals. Many achievement goal theorists found it difficult to understand the application of the approach-avoidance distinction into mastery goals because of the conflict conception between mastery goals, which were correlated with positive processes and outcomes, and the avoidance goals, which were correlated with negative and undermining processes and outcomes. In this model, the components of definition (mastery/performance) and valence (positive/negative) inside competence were fully contained in this model. This model was referred to as the 2×2 achievement goal model. Also, mastery-avoidance was defined as the goals that an individual was trying to achieve in a way that was not poorly related to their own perception and the demands of the task. One example of the mastery-avoidance goal regulation is individuals who are striving to be perfect. Besides the perfectionism, athletes and individuals who began to age would often use mastery-avoidance goal regulation when they noticed their cognitive skills and motor skills started to decline (Elliot & McGregor, 2001; Pintrich, 2000). The mastery-avoidance goals would produce more positive effects on the processes and outcomes than performance-avoidance goals and more negative effects on the processes and outcomes than mastery-approach goals (Elliot &

Hulleman, 2017). The performance-approach goals would generate more positive and beneficial effects, and the performance-avoidance goals would generate fewer negative or deleterious effects on the progress and outcomes in the 2×2 model, compared to the trichotomous model (Elliot & Hulleman, 2017). The empirical findings posited that the mastery-avoidance goals tended to have a positive correlation relationship with anxiety, procrastination, and perfectionism and a negative correlation relationship with performance (Baranik et al., 2010; Hulleman et al., 2010; Senko & Freund, 2015).

Elliot et al. (2011) expand the mastery goals within the 2×2 model into task-based and self-based sections. Searching for task-based goals could be totally independent from pursuing self-based goals. Task-based goals are goals that an individual tries to achieve relative to the demand of the task. Self-based goals are goals that individuals try to achieve an relation to their own trajectory. As for the performance-based goals in this model, they are relabeled as the other-based goals. With the definition of competence including three components, task-based, self-based, and other-based, this model now has six goals, so it was referred as the 3×2 achievement goal model. Inside the 3×2 model, task-approach goals are goals that individuals try to obtain task-based competence; task-avoidance goals are goals that individuals try to avoid task incompetence; self-approach goals are goals that individuals try to achieve self-based competence; the self-avoidance goals are goals that individuals try to avoid self-based incompetence; the other approach goals are goals that individuals try to

achieve other-based competence; and the other avoidance goals are goals that individuals try to avoid other-based incompetence. Task-based standards are easy and simple to determine the condition of success or failure with fewer cognitive processes required compared to the self-based standards. Self-based standards would require more cognitive capacities to compare a mentally represented self's competence in another time or place to their current competence (Elliot & Hulleman, 2017). Based on the distinctions between self-based and task-based standards, during optimal challenging tasks, the task-approach goals would be better to facilitate intrinsic motivation and concentration, and the self-approach goals would be better to facilitate persistence and eagerness (Elliot & Hulleman, 2017).

The achievement goal measure in one area of study, for example, in the sports domain, usually adapts the measure from another domain, like school or work. The dichotomous model of achievement goals was initially used to measure goals in school settings. A few years later, the measures in this model from school settings were applied to sports settings. The large amount of research that used the sport measure increased the status of the achievement goal approach inside the achievement motivation domain. When the trichomous model was proposed in 1996, the school and work domain first applied the measure, and then a few years later, the sport domain measures were developed. The 2×2 achievement goal model received extensive attention in sports psychology not only in the United States, but also around the

world. These studies helped the area of self-regulation inside the sport domain flourish.



2.3. Attachment Theory.

Later, Bowlby (1973) introduced the idea of insecure attachment. Insecure attachment is the attachment relationship that infants elicit fear because of their worry of losing proximity to their attachment figure during attachment formation, and that would result in infants' consistent concerns about and obsession with their attachment figure's availability and responsiveness (Sperling et al., 1992). Just like the needs for competence, autonomy, and relatedness proposed by Deci and Ryan (1991), the need for attachment is also referred to as one of the basic psychological needs of human beings (Carr, 2009).

The article posits that the history of an individual's attachment styles, especially during the infant period, affects the future attachment styles of that individual (Ainsworth, 1978).

Based on the study of Bowlby (1973), he posits that attachment styles should be one of the consistent factors of personality, and it is attachment styles' function to organize different systems of cognition, affect, and behavior during an individuals' lifetime. The attachment style could be reformed during life, but those attachment styles that has a significant impact on attachment formulation, are determined and difficult to change, even after primary attachment figures, usually parents, are replaced by new attachment figures (Ainsworth, 1989; Laible et al., 2000).

The internal working models are these patterns of cognition, affect, and behavior based upon the experiences children and adolescents encounter with their caregiver. When facing distressing situations, these

internal working models would serve as a tool to help individuals appraise the opportunity of whether their attachment figure would provide comfort and security or not, and these internal working models would elicit assessments of their value of self-worth and whether they deserve attachment relationships or not (Cook, 2000). A secure internal working model help children to establish positive internal representation of themselves during attachment relationship and provide a positive view of self-worth, and children would consider their attachment figures as responsive and available when they are facing distress situations. As for the insecure internal working model, it would guide children to a negative internal representation of themselves inside an attachment relationship and provide a negative view of self-worth, and children would fear their attachment figures' rejections and irregular responsive patterns when they are confronted with difficult situations (Duchesne & Larose, 2007).

2.3.1. Achievement Goal and Attachment.

The attachment proposed that the “innate behavior control systems” are the attachment and exploration systems. Inside the attachment theory, one of the most important functions of the theory is that forming proximity with an individual's caregiver, seeking for safety and protection (Carr, 2009). Another important factor is that these explorations made by infants of their surroundings would increase the infant's development and the chance of survival in the future (Elliot & Reis, 2003). Another proposal inside the attachment theory is that the operation of the exploration system would most likely depend on the

individual's attachment styles (Carr, 2009). Infants would be more likely to explore the environment when they formed a secure attachment style with their caregiver, because they would know their caregivers would be available when they asked for help or faced distress situations. Infants who developed insecure-ambivalent style would receive less impact from environmental exploration because of the consistent uncertainty of the availability and responsiveness of their caregivers. Infants who formed insecure-avoidant attachment styles would receive restricted impact from environmental exploration because of the unavailability of their caregiver (Carr, 2009). Beyond researching the timeframe of infants, attachment researchers shifted their focus onto variables which are signs or indicate for the system of exploration, like cognitive curiosity, activities of interest during leisure time, and intellectual openness. Adults who have insecure attachment would have a low desire of exploration in many environments, like individuals' physical, social, and intellectual environments, and adults with secure attachment would have a high exploration desire in these environments (Carr, 2009).

The study by Elliot and Reis (2003) proposed the idea that a conceptual similarity exists between the effectance motivation inside the achievement framework and the exploration systems in the attachment theory, and the similarity is associated with the achievement motivation. The reason for the association's existence exists is that when individuals formed secure internal working models of attachment, their exploration systems would promote more approach-based and

mastery-oriented exploration activities with little or even no fear of failure (Carr, 2009). However, when an individual developed an insecure internal working model of attachment, their attention would focus more on the availability and responsiveness of their attachment figure, so their exploration systems would elicit fewer competence-based explorations and shift their aim to more winnable activities or success achievements that would lead to receiving more acceptance and support from their attachment figures (Carr, 2009).

Based on Elliot and McGregor's 2x2 achievement goal model, Elliot and Reis (2003) described the association between attachment styles and achievement goals. According to research by Elliot and Reis (2003), more mastery approach goals and an increasing need for higher-order achievement are linked to individuals with secure attachment styles, and these individuals would have decreased degrees of pursuing mastery-avoidance goals, performance-avoidance goals, and failure avoidance activities. On the other hand, for people with insecure attachment styles, they are associated with an increasing degree of pursuing mastery-avoidance goals, performance-avoidance goals, and failure avoidance activities, and they are linked to a lower desire for achievement and mastery-approach goals. Elliot and Reis (2003) explained the null results between attachment factors and performance-approach goals, and that was caused by the extra motivations inside the performance-approach goals, for example, the interests in self-representations. The research about the relationship between attachment characteristics and performance-approach goals

requires attachment and achievement goal investigators' further close examinations and analysis.

Several studies about attachment goal theory in sport and physical activity (e.g., Carr & Weigand, 2001; Morris & Kavussanu, 2008) have revealed that one predictor for the motivational outcomes is the perception of the motivational climate by children. Generally, when the sports environment is perceived by children as a climate that focus on exhibiting better sports ability, fewer mistakes, and easier wins without practices or effects, the contextual responses of these young sports participants, like anxiety, worry, and other negative psychological effects, would be more likely to be generated. On the contrary, when the environment is perceived by children as a climate that focus on learning, mastery, and personal growth without the concern or worry about mistakes, these children are associated with positive motivation factors and lower anxiety (Carr, 2009).

With the introduction of Big Five personality theory, attachment theory, achievement goal theory, and their interrelationship with each other, the following paper will firstly introduce some meaningful and important papers related to their interrelationship issues. Then the next section will talk about how the research was conducted, the research method. After that, this paper will discuss the results from the research, and last, the final part of this paper will describe the general conclusion based on the results of the study and clarify some of the issues this paper possesses.

3. Literature Review

In 2004, Zweig and Webster (2004) conducted a research study to examine the association relationship between Big Five personality traits, goal orientations, and performance intentions. During research processes, the author used the Dispositional Goal Orientation measure and the Unipolar Markers for the Big-Five Factor Structure measure by Goldberg (1992) as measurements. By recruiting 786 participants from psychology courses, the research results indicated a significant relationship between the big five personality traits and different goal orientations. However, based on the results, the author postulated that when individuals form or create their own different types or patterns of achievement goal orientations, the influence of personality traits on transitions processes would come from the combination of these five personality traits rather than just one factor itself (Zweig & Webster, 2004). This research provides a foundation hypothesis that, despite the significant relationship between the Big Five personality traits and goal orientations, those Big Five personality traits could not directly impact the outcome of performance intentions in academic environments. On the other hand, these goal orientations could directly impact and predict engagement activities (Zweig & Webster, 2004).

Shaver and Brennan (1992) conducted research to investigate the effects of associations between attachment styles and the Big Five personality traits on the outcomes of romantic relationships. Researchers recruited 242 students from introductory psychology classes to

participate, using the categorical attachment-style measure by Hazan and Shaver (1987) to measure participants' attachment styles and using the NEO-PI by McCrae and Costa (1985) to measure participants' personality styles. As for measuring the romantic relationship outcomes, researchers asked participants to report their relationship status at the start of the study, and then, after approximately 8 months, through random selection, they asked some of the participants to report their relationship outcomes through the mail with monetary rewards. After calculating and analyzing the research results, Shaver and Brennan demonstrated that these different types of attachment styles have a significant relationship with three, and conceivably four, factors of the Big Five personality traits (1992). However, the analysis of the research could not discriminate against those major five personality trait scales in NEO-PI measurements, and after introducing the analysis of subscales of these major personality traits, significant discrimination relationship between three attachment styles and Big Five personality traits were obtained (Shaver & Brennan, 1992). When examining the capabilities of these personality traits in the NEO-PI measurement on predicting the attachment styles, Shaver and Brennan (1992) used multiple regression analyses and found that individuals with secure attachment are associated with lower scales in Neuroticism and high scales in Extraversion. However, the attachment styles are better predictors than these personality trait factors in predicting relationship status. They found out that individuals with anxious-ambivalent attachment are less likely to be in a relationship and are in a shorter

relationship (Shaver & Brennan, 1992).

As for researchers who wanted to investigate the correlations between attachment theory and achievement goal orientations, they focused on the connections between the exploration system in attachment theory and effectance motivation. The exploration system, which was proposed by Bowlby (1969, 1988), is one of the important behavioral control systems in attachment theory. These inherited behavioral control systems serve as the survival and reproduction functions for human beings. As for the function of the exploration system, it will lead infants to explore and discover the new environment they are not familiar with, so that their safety can be increase (Elliot & Reis, 2003). The effectance motivation is defined as one of the innate motives or needs to have competent-based interactions with environment by White (1959). According to White (1959), the effectance motivation is regarded as one of the motivational sources that also drives or leads individuals to explore the environment, and even influence and master their environments. However, the similar function between exploration and effectance motivation received little attention from researchers.

Elliot and Reis (2003) conducted four studies to have a comprehensive investigation into the associations between the exploration system in attachment theory and the effectance motivation in the achievement goal theory. Based on the analysis of results from four studies, they found that individuals with secure attachment are associated with higher levels of achievement needs and a lower level of fear of failure, and secure attachment is a positive predictor of mastery-approach goals as

well as a negative predictor for mastery-avoidance and performance-avoidance goals. For individuals with insecure attachment, their need for achievement is low and their fear of failure is high. Also, insecure attachment is a positive predictor of avoidance goals, mastery-avoidance goals, and performance-avoidance goals, but a negative predictor of mastery-approach goals (Elliot & Reis, 2003). With further examination, Elliot and Reis (2003) found out that the avoidance attachment and the anxiety attachment inside the insecure attachment share the same lower level of fear of failure, but individuals with the anxiety attachment prefer the use of avoidance goals, while individuals with the avoidance attachment do not prefer the usage of avoidance goals. This study provides a clear foundation for researchers to understand the relationship between attachment theory and achievement goal theory. Despite this study being conducted on the academic domain by recruiting students from psychology class, the author proposed that the same associations and connections from the academic domain apply to the sports domain. Few researchers continued to investigate this issue and the generalizability of these relationships in sports settings or in athletes.

4. Method

4.1. Research Participants and Procedure

A total number of 159 collegiate athletes from three different universities in China were recruited to participate the questionnaire. One of the participants is a graduate student who plays badminton on the school team, and the rest of the participants are undergraduate students. The age distributions of them were between the age of 18-24. According to the data on Table 1, 58.5 percent of participants are male, and 41.5 percent of participants are female. Among all participants, the martial arts had most participants, with 39 athletes. The swimming event has only 1 participant. During research, participants were recruited from a wide variety of sports events. 21 participants are aerobic gymnastics athletes, 2 participants are athletics sports players, and 7 badminton athletes including the graduate participant, 34 basketball players, 8 cheerleading athletes, 2 golf players, 8 long-distance running athletes, 8 soccer players, 15 sprint athletes, 6 tennis players, and 8 volleyball athletes. Because of the pandemic, all the feedbacks for the questionnaire was through online. After four questions related to the personal information of participants, the athletes were asked to first finish the Big Five Inventory-2 questionnaires. After that, the 3×2 Achievement Goal Orientation Questionnaires for Sports and the last Attachment Style Questionnaire were listed on the website for athletes to complete.

Table 1

Frequency Analysis Result (Participants)

	Frequency	Percentage (%)
Male	93	58.5
Female	66	41.5
Total	159	100.0



4.2. Measures

4.2.1. *Big Five Inventory-2*

The Big Five Inventory-2 (BFI-2) was developed based on the original version of the Big Five Inventory (BFI) by John, Donahue, and Kentle (1991). The original version of the Big Five Inventory contains 44 short phrases to rate. 26 years later, Soto and John (2017) revised the Big Five Inventory with 60 items. The BFI-2 used a 5-point scale of rating, ranging from 1 (disagree strongly) to 5 (agree strongly).

4.2.2. *3 × 2 Achievement Goal Orientation Questionnaire for Sports*

The 3 × 2 Achievement Goal Orientation Questionnaire for Sports (3 × 2 AGQ-S) was developed by Mascaret, Elliot, and Cury (2015) based on 3×2 achievement goal model by Elliot, Murayama, and Pekrun (2011) in school settings. Just like before, the sport measurement of achievement goal model was developed a few years later. This 3×2 AGQ-S contains 18 items with a rating scale of 7, from 1 (strongly disagree) to 7 (strongly agree).

4.2.3. *The Attachment Style Questionnaire*

The Attachment Style Questionnaire (ASQ) is one of the attachment questionnaires that is suitable for assessing the attachment style of adults. In this questionnaire, Feeney, Noller, and Hanrahan (1994) created 40 items with a point scale of 5, from 1 (totally disagree) to 5 (totally agree). Compared to other attachment measurements, the Attachment Style Questionnaire is more useful to use for specific

factors of anxiety and avoidance attachment.



5. Results

5.1. Descriptive Statistics of Scales and Reliability

The analysis of the Big Five Inventory-2 questionnaire results is presented in Table 2. Based on the results, the means of items in the Extraversion trait range from 2.5723 to 3.7736, and the standard deviations of Extraversion items range from 0.83252 to 1.12254. The means of Agreeableness items range from 2.0314 to 4.1132, and the standard deviations of the Agreeableness items range from 0.82864 to 1.05795. Also, the means of the Conscientiousness items range from 2.3522 to 3.8491, and the standard deviation of Conscientiousness items ranges from 0.79915 to 1.05626. The Negative Emotion items have means from 2.6541 to 3.7987, and their standard deviations are from 0.81063 to 1.09946. The averages of the items in the last Open-mindedness trait range from 2.5031 to 3.9119. The standard deviations of items in the Open-mindedness traits range from 0.89626 to 1.17385.

According to the results analysis data in Table 2, the reliability of Extraversion items is 0.83. The reliability score of Agreeableness items is 0.851. The reliability of Conscientiousness items is 0.845. Also, the reliability score of Negative Emotion is 0.749. The reliability score of Open-Mindedness items is 0.799.

Table 2

The Descriptive Statistics of Scales of Big Five Inventory-2

	Mean	SD	Skewness	Kurtosis	Cronbach α
Extraversion1	3.6855	1.05025	-.369	-.522	.830
Extraversion2	3.5597	.96516	-.257	-.168	
Extraversion3	3.0755	1.12254	-.041	-.657	
Extraversion4	3.5031	.97354	-.155	-.268	
Extraversion5	2.8742	1.05388	-.008	-.411	
Extraversion6	2.5723	.99020	.232	-.289	
Extraversion7	3.5031	.92691	-.637	.459	
Extraversion8	2.8931	.91811	-.183	.240	
Extraversion9	3.6981	.83252	-.249	-.106	
Extraversion10	3.3899	.98670	-.129	-.448	
Extraversion11	3.1887	.93572	-.105	.067	
Extraversion12	3.7736	.90655	-.671	.476	
Agreeableness1	4.1132	.85670	-1.015	1.313	.851
Agreeableness2	4.1006	.85828	-.804	.417	
Agreeableness3	2.2642	.99016	.676	.254	
Agreeableness4	2.0314	1.05795	1.041	.635	
Agreeableness5	2.3522	.98815	.558	.075	
Agreeableness6	3.7925	.87204	-.626	.692	
Agreeableness7	3.9434	.82864	-.637	.764	
Agreeableness8	2.6415	.97619	.112	-.426	
Agreeableness9	2.4780	.98621	.403	-.140	
Agreeableness10	2.5786	1.02119	.164	-.747	
Agreeableness11	3.8050	.86769	-.611	.713	
Agreeableness12	3.7736	.87818	-.449	.139	
Conscientiousness1	2.7484	.94781	.344	.261	.845
Conscientiousness2	2.9057	1.04210	-.047	-.490	
Conscientiousness3	3.8491	.92906	-.653	.330	
Conscientiousness4	3.5346	.87713	-.021	-.144	
Conscientiousness5	2.4214	1.00872	.461	-.034	
Conscientiousness6	2.5157	1.00540	.297	-.158	
Conscientiousness7	3.7358	.83023	-.546	.901	
Conscientiousness8	3.6792	.90232	-.314	.093	
Conscientiousness9	3.6667	.90475	-.379	-.110	
Conscientiousness10	2.3522	1.05626	.363	-.564	
Conscientiousness11	3.7358	.79915	-.466	.710	
Conscientiousness12	2.7987	1.02364	.235	-.285	
Negative Emotion1	3.6038	.94814	-.213	-.451	.749
Negative Emotion2	3.7987	.87713	-.563	.568	
Negative Emotion3	2.6541	1.06133	.312	-.241	
Negative Emotion4	3.2390	1.08184	-.551	-.091	
Negative Emotion5	3.3585	.94322	-.180	.129	
Negative Emotion6	3.4654	1.00492	-.548	.093	
Negative Emotion7	2.9937	1.09946	-.103	-.689	
Negative Emotion8	3.0000	1.07915	-.122	-.537	
Negative Emotion9	3.7233	.81063	-.318	.080	
Negative Emotion10	3.1761	.95158	.041	-.097	
Negative Emotion11	2.8868	1.01869	.012	-.358	
Negative Emotion12	2.6730	.97108	.110	-.270	
Open Mindedness1	2.8176	1.17385	.242	-.662	.799
Open Mindedness2	3.9119	.94389	-.783	.448	
Open Mindedness3	3.6226	.92558	-.244	-.321	
Open Mindedness4	3.2075	1.07371	.011	-.467	
Open Mindedness5	2.7484	1.03097	.031	-.271	
Open Mindedness6	2.5031	.99920	.088	-.573	
Open Mindedness7	3.4906	.93367	-.138	-.028	
Open Mindedness8	3.5723	.89626	-.220	.540	
Open Mindedness9	2.6164	.99237	.361	-.274	
Open Mindedness10	3.0629	.99165	-.048	-.215	
Open Mindedness11	3.0189	.99665	.156	-.187	
Open Mindedness12	3.5346	.92627	-.199	.053	

Table 3 demonstrated the statistical results analysis of the items in the Attachment Style Questionnaire. For items of secure attachment, their scores of averages range from 3.3522 to 3.7233, and their standard deviation scores range from 1.08569 to 1.25611. The averages of items in avoidant-attachment scores range from 3.478 to 3.5346, and their standard deviation scores are from 1.16291 to 1.24158. As for items in anxious-attachments, the average scores range from 3.283 to 3.6226, and their standard deviations are from 1.06556 to 1.33098.

The score of reliability for the items of secure attachment is 0.891. It has a 0.953 score for the reliability of avoidant-attachment items. The reliability for the anxious-attachment is 0.943.

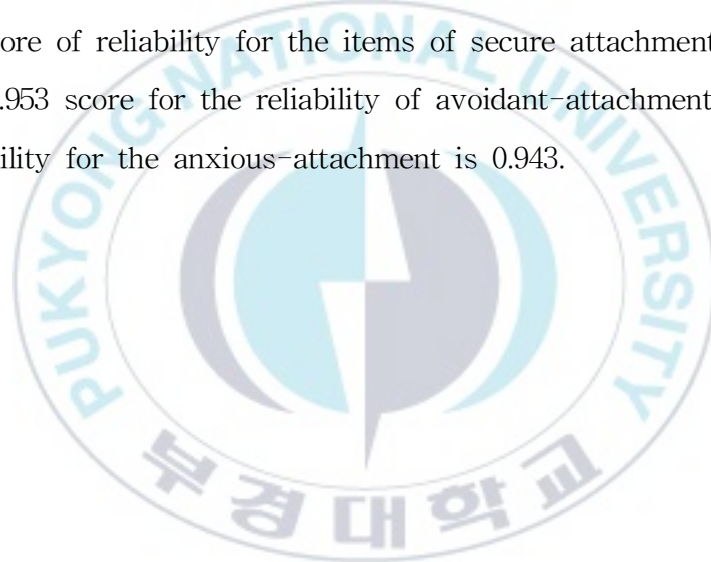


Table 3

The Descriptive Statistics of Scales of Attachment Style

	Mean	SD	Skewness	Kurtosis	CronBach α
Secure-Attachment1	3.6604	1.14090	-.597	-.125	.891
Secure-Attachment2	3.5094	1.12434	-.565	-.069	
Secure-Attachment3	3.3522	1.17537	-.385	-.514	
Secure-Attachment4	3.4906	1.13555	-.449	-.275	
Secure-Attachment5	3.4528	1.10636	-.547	-.063	
Secure-Attachment6	3.7233	1.19552	-.597	-.454	
Secure-Attachment7	3.4025	1.08569	-.347	-.303	
Secure-Attachment8	3.5535	1.25611	-.520	-.615	
Avoidant-Attachment1	3.4780	1.16291	-.301	-.708	.953
Avoidant-Attachment2	3.4717	1.22635	-.382	-.583	
Avoidant-Attachment3	3.5220	1.19512	-.469	-.489	
Avoidant-Attachment4	3.5660	1.18817	-.365	-.810	
Avoidant-Attachment5	3.4528	1.31061	-.545	-.762	
Avoidant-Attachment6	3.3019	1.27167	-.323	-.729	
Avoidant-Attachment7	3.4654	1.18951	-.282	-.766	
Avoidant-Attachment8	3.3333	1.13999	-.191	-.399	
Avoidant-Attachment9	3.3899	1.20080	-.392	-.510	
Avoidant-Attachment10	3.4465	1.20992	-.590	-.422	
Avoidant-Attachment11	3.4277	1.29975	-.470	-.687	
Avoidant-Attachment12	3.5660	1.21451	-.274	-1.012	
Avoidant-Attachment13	3.5346	1.10109	-.060	-.883	
Avoidant-Attachment14	3.2642	1.16082	-.335	-.435	
Avoidant-Attachment15	3.4591	1.11231	-.483	-.185	
Avoidant-Attachment16	3.4780	1.22131	-.582	-.349	
Avoidant-Attachment17	3.5346	1.24158	-.522	-.701	
Anxious-Attachment1	3.3774	1.27130	-.404	-.732	.943
Anxious-Attachment2	3.3082	1.33098	-.485	-.808	
Anxious-Attachment3	3.4591	1.24647	-.372	-.705	
Anxious-Attachment4	3.3082	1.25259	-.388	-.711	
Anxious-Attachment5	3.3648	1.12183	-.133	-.496	
Anxious-Attachment6	3.4591	1.14595	-.154	-.626	
Anxious-Attachment7	3.5786	1.19272	-.427	-.647	
Anxious-Attachment8	3.2830	1.26357	-.225	-.719	
Anxious-Attachment9	3.5912	1.13190	-.415	-.510	
Anxious-Attachment10	3.3711	1.19891	-.282	-.566	
Anxious-Attachment11	3.4340	1.08224	-.359	-.224	
Anxious-Attachment12	3.6226	1.12890	-.497	-.239	
Anxious-Attachment13	3.5472	1.06556	-.411	-.181	
Anxious-Attachment14	3.4025	1.11446	-.571	-.153	
Anxious-Attachment15	3.5346	1.17344	-.239	-.791	

The statistical data from the 3×2 Achievement Goal Orientation Questionnaire for Sport is presented in Table 4. The averages of Task-approach goals are from 5.1572 to 5.2767, and their standard deviations are from 1.20903 to 1.23715. The averages of task-avoidance goals range from 5.0126 to 5.2264, and their standard deviations range from 1.2783 to 1.38702. For items in self-approach goals, their averages range from 5.2516 to 5.3208, and their standard deviations range from 1.20196 to 1.28757. For items in self-avoidance goals, the averages are from 5.1384 to 5.1824, and their standard deviations are from 1.15 to 1.3385. The means of other-approach goals are from 4.8931 to 4.9497, and their standard deviations are from 1.23037 to 1.32739. The means of other-avoidance goals range from 4.8868 to 4.9623, and their standard deviations range from 1.21117 to 1.33588.

The reliability score of task-approach goal items is 0.731. The reliability score of task-avoidance goals is 0.875. For items of self-approach goals, their score of reliability is 0.842. For items of self-avoidance goals, their reliability score is 0.831. The reliability score of other-approach goals is 0.838, and the reliability score of other-avoidance goals is 0.882.

Table 4

*The Descriptive Statistics of Scales of 3×2 Achievement Goal
Orientation*

	Mean	SD	Skewness	Kurtosis	Cornbach α
TAP1	5.1572	1.21975	-.454	.675	.731
TAP2	5.1950	1.20903	-.382	.272	
TAP3	5.2767	1.23715	-.319	-.178	
TAV1	5.0126	1.27283	-.341	.091	.875
TAV2	5.1132	1.38702	-.609	.504	
TAV3	5.2264	1.30687	-.532	.463	
SAP1	5.2830	1.20196	-.408	.505	.842
SAP2	5.3208	1.24433	-.651	1.119	
SAP3	5.2516	1.28757	-.679	.912	
SAV1	5.1824	1.18458	-.475	.616	.831
SAV2	5.1572	1.33850	-.340	-.156	
SAV3	5.1384	1.15000	-.401	.598	
OAP1	4.8931	1.23037	-.289	.719	.838
OAP2	4.8994	1.32739	-.389	.555	
OAP3	4.9497	1.23144	-.130	.032	
OAV1	4.9560	1.31854	-.656	.889	.882
OAV2	4.8868	1.33588	-.371	.179	
OAV3	4.9623	1.21117	-.100	.052	

5.2. The Descriptive Statistics of Scales of Correlation Analysis

Table 5 presents an analysis of the correlation between the five variables of the Big Five personality traits, six factors in the achievement goal orientation theory, and three different styles of attachment. Based on Table 5, the Extraversion trait is positively correlated with Agreeableness, Conscientiousness, Open-mindedness, task-approach, task-avoidance, self-approach, self-avoidance, other-approach, and other-avoidance factors ($P < .01$), and it has a negative correlation with Negative Emotion ($P < .01$). Agreeableness trait is positively correlated with Conscientiousness, Open-Mindedness, task-approach, task-avoidance, self-approach, self-avoidance, other-approach, and other-avoidance factors ($P < .01$), and it is also negatively correlated with Negative Emotion ($P < .01$). The trait of Conscientiousness is negatively correlated with Negative Emotion ($P < .01$), and it is positively correlated with Open-Mindedness, task-approach, task-avoidance, self-approach, self-avoidance, other-approach, and other-avoidance factors ($P < .01$). The correlation relationship is different to the trait of Negative Emotion, compared to other factors. The Negative Emotion is negatively correlated with Open-Mindedness, task-approach, task-avoidance, self-approach, self-avoidance, other-approach, and other-avoidance factors ($P < .01$). The trait of Open-mindedness is positively correlated with task-approach, task-avoidance, self-approach, self-avoidance,

other-approach, and other-avoidance ($P < .01$).

Finishing with the five traits from the Big Five theory, factors from the achievement goals orientation theory will be described in this paragraph. The task-approach goal is positively correlated with task-avoidance, self-approach, self-avoidance, other-approach, and other-avoidance goals ($P < .01$). The task-avoidance goal is positively correlated with self-approach, self-avoidance, other-approach, and other-avoidance goals ($P < .01$). Based on Table 5, the self-approach goal, self-avoidance goal, other-approach goal, and other-avoidance goal all have relatively strong correlations with each other ($P < .01$).

However, the reason why the previous chapters did not describe the correlation relationship between the three different attachment styles with other factors from the Big Five traits and achievement goal orientation theory is that, based on Table 5, they have considerably weak connections with other factors. Even though the connections among attachment styles are strong, a the problem exists between attachment styles, personality traits, and goal orientations. Most of these correlations between attachment styles and other factors are under 0.1, with only a few exceptions.

Table 5

The Descriptive Statistics of Scales of Correlation Analysis

	Extraversion	Agreeableness	Conscientiousness	Negative Emotionality	Open-Mindedness	Task Approach	Task Avoidance	Self Approach	Self Avoidance	Other Approach	Other Avoidance	Secure Attachment	Anxious Attachment	Avoidant Attachment
Extraversion	1													
Agreeableness	.557**	1												
Conscientiousness	.690**	.748**	1											
Negative Emotionality	-.610*	-.533**	-.672**	1										
Open-Mindedness	.695**	.560**	.743**	-.650**	1									
Task Approach	.334**	.356**	.421**	-.330**	.353**	1								
Task Avoidance	.175*	.236**	.260**	-.211**	.187*	.777**	1							
Self Approach	.291**	.347**	.358**	-.276**	.286**	.841**	.777**	1						
Self Avoidance	.174*	.250**	.282**	-.218**	.188*	.785**	.799**	.845**	1					
Other Approach	.271**	.129	.152	-.104	.182*	.592**	.551**	.670**	.617**	1				
Other Avoidance	.243**	.155	.158*	-.141	.199*	.599**	.636**	.634**	.658**	.832**	1			
Secure Attachment	.024	-.066	-.061	-.041	-.059	-.043	-.174*	-.080	-.086	-.082	-.138	1		
Anxious Attachment	-.008	-.048	-.043	-.022	-.083	.000	-.122	-.042	-.060	-.078	-.146	.937**	1	
Avoidant Attachment	.031	-.043	-.024	-.052	-.041	.012	-.133	-.037	-.045	-.066	-.127	.946**	.949**	1
M	3.1871	3.7652	3.5383	2.6934	3.3810	5.2096	5.1174	5.2851	5.1593	4.9140	4.9350	3.5181	3.4428	
SD	.49289	.57566	.55805	.51107	.50815	1.09310	1.06678	1.07643	1.06988	1.09866	1.16046	.86920	.88368	SD

NOTE. * $p < .05$, ** $p < .01$

5.3. Regression Analysis

Regression analysis is one of the statistical analysis methods to determine the predictor power between dependent variable and independent variables. And among many measures used in regression analysis, the measure of Durbin-Watson helps establish the correlation relationship between variables. During regression analysis, the independent variables in both Table 6 and Table 7 are the five traits in the Big Five personality theory, and as for the dependable variables, in Table 6, they are the six goal orientations in the achievement goal orientations, and in Table 7, they are the three different styles of attachment.

According to the results in Table 6, the five personality traits account for 16.1% of the variability of the task-approach goals. Specifically, the trait of conscientiousness ($\beta=.489$, $p<.05$) has a significant positive effect on task-approach goals. These personality traits account for 4.4% of the variability of the task-avoidance goals. Conscientiousness ($\beta=.341$) has a related positive effect on task-avoidance goals. As for the self-approach goal, the five personality traits account for 11.8% variability. Agreeableness ($\beta=.321$) and conscientiousness ($\beta=.308$) have a related positive effect on self-approach goal. These five personality traits account for the 8.7% variability of self-avoidance goals. Conscientiousness ($\beta=.454$) has a relative positive effect on self-avoidance goals. The five personality traits only account for 5.1% of the variability of other-approach goals. To be more specific, the trait of extraversion ($\beta=.725$, $p<.01$) has a

significant positive effect on other-approach goals. For other-avoidance goals, the five personality traits account for 3.4% of the variability. Extraversion ($\beta=.525$, $p<.05$) has a significant positive effect on other-avoidance goals.



Table 6

Regression Analysis of Effect of Big Five on the 3×2 Achievement Goal Orientation

Independent Variable	Dependent Variable	β	SE	Beta	t	R2	F-value
Constant	Task Approach	2.508	1.355		1.850***		
Extraversion		.096	.246	.043	.389		
Agreeableness		.164	.210	.086	.780	.161	17.045***
Conscientiousness		.489	.282	.250	1.731*		
Negative Emotionality		-.121	.225	-.057	-.540		
Open Mindedness		.112	.260	.052	.432		
Durbin-Watson=2.118							
Constant	Task Avoidance	4.076	1.412		2.887***		
Extraversion		-.059	.256	-.027	-.230		
Agreeableness		.173	.218	.093	.793	.044	12.461***
Conscientiousness		.341	.294	.178	1.160		
Negative Emotionality		-.159	.234	-.076	-.679		
Open Mindedness		-.059	.270	-.028	-.219		
Durbin-Watson=1.977							
Constant	Self-Approach	2.741	1.368		2.003***		
Extraversion		.127	.248	.058	.511		
Agreeableness		.321	.211	.172	1.519	.118	15.236***
Conscientiousness		.308	.285	.159	1.079		
Negative Emotionality		-.078	.227	-.037	-.344		
Open Mindedness		.016	.262	.007	.060		
Durbin-Watson=2.214							
Constant	Self-Avoidance	4.059	1.406		2.887***		
Extraversion		-.104	.255	-.048	-.407		
Agreeableness		.168	.217	.090	.772	.087	12.921***
Conscientiousness		.454	.293	.237	1.552		
Negative Emotionality		-.157	.233	-.075	-.672		
Open Mindedness		-.114	.269	-.054	-.424		
Durbin-Watson=2.135							
Constant	Other Approach	1.921	1.448		1.326***		
Extraversion		.725	.263	.325	2.762**		
Agreeableness		.022	.224	.011	.098	.051	12.706***
Conscientiousness		-.111	.302	-.056	-.367		
Negative Emotionality		.214	.240	.100	.893		
Open Mindedness		.122	.277	.056	.440		
Durbin-Watson=1.888							
Constant	Other Avoidance	2.567	1.544		1.663***		
Extraversion		.525	.280	.223	1.876*		
Agreeableness		.131	.239	.065	.548	.034	12.108***
Conscientiousness		-.210	.322	-.101	-.654		
Negative Emotionality		.062	.256	.027	.244		
Open Mindedness		.230	.296	.101	.778		
Durbin-Watson=1.940							

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

However, the analysis results are different when attachment styles are dependent variables. These five personality traits only account for 0.3% of the variability of secure attachment. Extraversion ($\beta=.241$) has a positive effect on secure attachment. These personality traits account for 1.2% of the variability of anxious attachment and 1.2% of avoidant attachment. The open-mindedness ($\beta=-.325$) has negative effects on anxious attachment, and the trait of open-mindedness ($\beta=-.251$) has negative effects on avoidant attachment.



Table 7

Regression Analysis of Effect of Big Five on the Attachment Style

Independent Variable	Dependent Variable	β	SE	Beta	t	R2	F-value
Constant	Secure Attachment	5.224	1.178		4.434	.003	1.903
Extraversion		.241	.214	.136	1.126		
Agreeableness		-.103	.182	-.068	-.566		
Conscientiousness		-.165	.245	-.106	-.672		
Negative Emotionality		-.263	.195	-.154	-1.345		
Open Mindedness		-.235	.226	-.137	-1.039		
Durbin-Watson=2.263							
Constant	Anxious Attachment	5.006	1.203		4.161***	.012	1.633
Extraversion		.136	.218	.076	.624		
Agreeableness		-.076	.186	-.049	-.408		
Conscientiousness		-.007	.251	-.004	-.027		
Negative Emotionality		-.218	.200	-.126	-1.093		
Open Mindedness		-.325	.230	-.187	-1.412		
Durbin-Watson=2.219							
Constant	Avoidant Attachment	4.967	1.241		4.003***	.012	1.631
Extraversion		.196	.225	.106	.873		
Agreeableness		-.120	.192	-.076	-.625		
Conscientiousness		-.049	.258	-.030	-.188		
Negative Emotionality		-.248	.206	-.139	-1.204		
Open Mindedness		-.251	.238	-.140	-1.057		
Durbin-Watson=2.212							

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

6. Discussion

While conducting research, this paper has two main research purposes in mind. The first purpose of this research is to investigate the relationship effects between the Big Five traits and the achievement goal orientations on athletes. One interesting finding from the results analysis is that these Big Five personality traits have a correlation relationship with different goal orientations, but these personality traits could not be used as predictors of an athlete's goal orientations. According to the correlation results, the big five personality traits among athletes have a correlation relationship with their achievement goal orientation styles. These results suggest that the trait of Extraversion has a higher correlation relationship with approach-based goals, compared to avoidance-based goals. The traits of agreeableness, conscientiousness, and open-mindedness have a higher correlation with task-approach goals and self-approach goals than task-avoidance and self-avoidance goals, and all of them have a lower correlation with other-based goals than task-based and self-based goals. According to the regression analysis results, these five personality traits only account for a small percentage of the variability of the six goal orientations, even less than 10% variability for most goal orientations. The predictor power of the Big Five personality traits is weak for achievement goal orientations. Many other factors are more suitable to be used to predict athletes' goal orientations, rather than the Big Five personality traits.

The second research aim of this paper is to investigate the effects of

the Big Five personality traits on the different attachment styles that athletes possess. The current study found out that the Big Five personality traits have an extremely low correlation relationship with attachment styles in athletes, and the regression analysis showed that the personality traits account for 1% or less variability for three different attachment styles. The relationship between the Big Five personality traits and attachment styles does not exist in this study, which is contrary to the findings in Shaver and Brennan (1992). Shaver and Brennan (1992) found that partial personality traits and attachment styles are correlated, but the finding is different in this study. The third research aim is to investigate the relationship between achievement goal orientations and attachment styles. Based on the results of this study, the correlation relationship is also extremely low. The conceptual link between effectance motivation of the achievement goal orientation theory and the exploration system of attachment theory was not determined in these study results among collegiate athletes. These study results are also opposite to the findings made by Elliot and Reis (2003) in academic settings.

One of the explanations for the low effect of the Big Five traits on achievement goals and even no effects could be because the Big Five personality traits are global concepts. In the research of predicting or shaping sports performance, the Big Five personality could not have a direct impact on participants, unlike the attachment theory and the goal orientation theory. For example, the different attachment styles could be used as one of these direct predictors of athletes' performance, as do

the different types of achievement goal orientations. However, the effect of the Big Five personality traits could not produce director predictions like attachment styles and goal orientations. This could be one of the reasons why the field of sports psychology in recent decades has not paid much attention to examining the prediction power of the Big Five personality traits. Research related to attachment, goal orientation, and other competence-related motivation factors would produce more direct performance change. When investigating the power of prediction or correlation, the effect of these general Big Five traits on these specific personality factors like attachment and achievement would be relatively low.

6.1. Limitations

Many research methods and procedures could be improved in this study. These research participants in this study are only collegiate sport athletes from China. Because of the sudden outbreak of a pandemic which caused locked down the city where universities are, most participants were asked to participate through social networking services at home to finish their questionnaires. The pandemic limited the number of participants, and the way participants treated these questionnaires. Because of the many limitations that existed during the research, the findings in this paper could have some issues while generalizing to other collegiate sport athletes and or in other situations. Then the generalization ability of these study results could be weaker.

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Appendix

The Big Five Inventory - 2 (BFI-2)

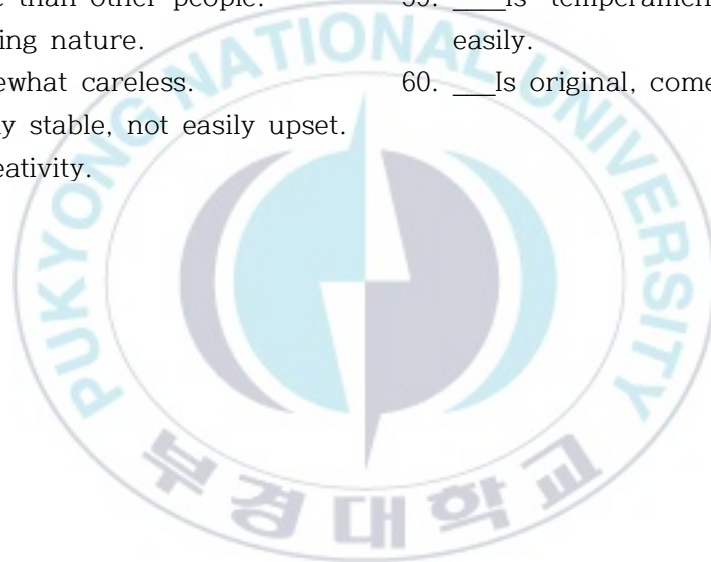
Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	2	3	4	5
Disagree Strongly	Disagree A Little	Neutral; No Opinion	Agree A Little	Agree Strongly

I am someone who...

- | | |
|---|--|
| 1. ___ Is outgoing, sociable. | 31. ___ Is helpful and unselfish with others. |
| 2. ___ Is compassionate, has a soft heart. | 32. ___ Keeps things neat and tidy. |
| 3. ___ Tends to be disorganized. | 33. ___ Is sometimes shy, introverted. |
| 4. ___ Is relaxed, handles stress well. | 34. ___ Worries a lot. |
| 5. ___ Has few artistic interests. | 35. ___ Values art and beauty. |
| 6. ___ Has an assertive personality. | 36. ___ Finds it hard to influence people. |
| 7. ___ Is respectful, treats others with respect. | 37. ___ Is sometimes rude to others. |
| 8. ___ Tends to be lazy. | 38. ___ Is efficient, gets things done. |
| 9. ___ Stays optimistic after experiencing a setback. | 39. ___ Often feels sad. |
| 10. ___ Is curious about many different things. | 40. ___ Is complex, a deep thinker. |
| 11. ___ Rarely feels excited or eager. | 41. ___ Is full of energy. |
| 12. ___ Tends to find fault with others. | 42. ___ Is suspicious of others' intentions. |
| 13. ___ Is dependable, steady. | 43. ___ Is reliable, can always be counted on. |
| 14. ___ Is moody, has up and down mood swings. | 44. ___ Keeps their emotions under control. |
| 15. ___ Is inventive, finds clever ways to do things. | 45. ___ Has difficulty imagining things. |
| 16. ___ Tends to be quiet. | 46. ___ Is talkative. |
| 17. ___ Feels little sympathy for others. | 47. ___ Can be cold and uncaring. |
| | 48. ___ Leaves a mess, doesn't clean up. |
| | 49. ___ Rarely feels anxious or afraid. |

18. ___Is systematic, likes to keep things in order.
19. ___ Can be tense.
20. ___ Is fascinated by art, music, or literature.
21. ___ Is dominant, acts as a leader.
22. ___ Starts arguments with others.
23. ___ Has difficulty getting started on tasks.
24. ___ Feels secure, comfortable with self.
25. ___ Avoids intellectual, philosophical discussions.
26. ___ Is less active than other people.
27. ___Has a forgiving nature.
28. ___ Can be somewhat careless.
29. ___ Is emotionally stable, not easily upset.
30. ___ Has little creativity.
50. ___Thinks poetry and plays are boring.
51. ___Prefers to have others take charge.
52. ___Is polite, courteous to others.
53. ___Is persistent, works until the task is finished.
54. ___Tends to feel depressed, blue.
55. ___Has little interest in abstract ideas.
56. ___Shows a lot of enthusiasm.
57. ___Assumes the best about people.
58. ___Sometimes behaves irresponsibly.
59. ___Is temperamental, gets emotional easily.
60. ___Is original, comes up with new idea



Appendix 2: 3*2 Achievement Goal Orientation Questionnaire for Sport (AGQ-S)

Instructions: The following statements represent types of goals that you may or may not have when you play sport. For each item, put a mark on the scale from 1 (strongly disagree) to 7 (strongly agree) to indicate your level of agreement with the statement. All of your responses will be kept anonymous and confidential. There are no right or wrong responses, so please be open and honest.

In sport, my goal is.....		1	2	3	4	5	6	7
1.	to avoid bad results.							
2.	to perform well.							
3.	to avoid having worse results than I had previously.							
4.	to have better results than others.							
5.	to be more effective than before.							
6.	to avoid doing worse than I usually do.							
7.	to do better than what I usually do.							
8.	to avoid performing badly.							
9.	to avoid being less effective than others.							
10.	to have better results than I had in the past.							
11.	to do better than others.							
12.	to avoid worse results than others.							
13.	to avoid being less effective compared to my usual level of performance.							
14.	to be effective.							
15.	to be more effective than others.							
16.	to obtain good results.							
17.	to avoid doing worse than others.							
18.	to avoid being ineffective.							

Appendix 3: Attachment Style Questionnaire

The following items were measured on a 5-point scale, ranging from 1 (totally disagree) to 5 (totally agree).

	1	2	3	4	5
1. Overall I am a worthwhile person.					
2. I am easier to get to know than most people.					
3. I feel confident that other people will be there for me when I need them.					
4. I prefer to depend on myself rather than other people.					
5. I prefer to keep to myself.					
6. To ask for help is to admit that you're a failure.					
7. People's worth should be judged by what they achieve.					
8. Achieving things is more important than building relationships.					
9. Doing your best is more important than getting on with other.					
10. If you've got a job to do, you should do it no matter who gets hurt.					
11. It's important that others like me.					
12. It's important to me to avoid doing things that others won't like.					
13. I find it hard to make a decision unless I know what other people think.					
14. My relationships with others are generally superficial.					
15. Sometimes I think I am no good at all.					
16. I find it hard to trust other people.					
17. I find it difficult to depend on others.					
18. I find that others are reluctant to get as close as I would like.					
19. I find it relatively easy to get close to other people.					
20. find it easy to trust others.					
21. I feel comfortable depending on other people.					
22. I worry that others won't care about me as much as I care about them					
23. I worry about people getting too close.					
24. I worry that I won't measure up to other people.					

25. I have mixed feelings about being close to others.					
26. While I want to get close to others, I feel uneasy about it.					
27. I wonder why people would want to be involved with me.					
28. It's very important to me to have a close relationship.					
29. I worry a lot about my relationships.					
30. I wonder how I would cope without someone to love me.					
31. I feel confident about relating to others.					
32. I often feel left out or alone.					
33. I often worry that I do not really fit in with other people.					
34. Other people have their own problems, so I don't bother them with mine.					
35. When I talk over my problems with others, I generally feel ashamed or foolish.					
36. I am too busy with other activities to put much time into relationships					
37. If something is bothering me, others are generally aware and concerned.					
38. I am confident that other people will like and respect me.					
39. I get frustrated when others are not available when I need them.					
40. Other people often disappoint me.					