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Master's Thesis of Global Sport Management

**The Relationship between Talent
Development Environment and
Satisfaction of Playing Soccer in South
Korea among Middle School Student-
Athletes**

축구인재육성환경이 유소년축구선수들의 축구만족도에
미치는 영향: 중학교 축구선수들을 중심으로

February 2019

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Abstract

The Relationship between Talent Development Environment and Satisfaction of Playing Soccer in South Korea among Middle School Student-Athletes

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In today's talent development in soccer industry is one of the most crucial responsibilities for its industry's growth and strengthening their youth soccer players' performance for future competitions as their core investment. The environment of talent development supports youth soccer players to perform better and think more creative during competitions by learning from their coaches and continuous training. Since youth soccer players' mentality affects their performance in playing soccer, there are lack of studies in South Korea regarding youth soccer players' satisfaction in talent development environment.

This study is based on youth soccer players' satisfaction for playing soccer in South Korea, an attempt to provide insight how much the players satisfy with current environment and the relationship with their coaches.

The study looked youth soccer players' satisfaction in South Korean talent development environment by applying seven environmental factors: Long-Term Development Focus, Quality Preparation, Communication, Understanding the Athlete, Support Network, Challenge and Supportive Environment, and Long-Term Development Fundamentals. More specifically, this study looked to identify the influence of the environmental factors towards the satisfaction of playing soccer in South Korea. The difference of satisfaction towards the talent development environment in each grade of middle school soccer players was also compared through this study.

Results showed that the players' overall satisfaction in playing soccer increases as they satisfy their 5 environmental factors of talent development which are Long-Term Development Focus, Communication, Support Network, Challenging and Supportive Environment, and Long-Term Development Fundamentals. Finally, there were significant difference of satisfaction towards the talent development environment between grade 1, grade 2, and grade 3 in South Korea.

Keywords: Soccer, Football, Talent Development, Talent Development Environment, Attachment Theory, Self-Determination Theory, Satisfaction

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Introduction

Research Background

Soccer is undoubtedly one of the most popular sports in the world (Mashayekh, Aslankhani, & Shojaei, 2015). As the popularity maintains its peak as a global sport, researchers and professionals continue to participate in optimizing the talent pathway for the athletes (Martindale et al., 2010). The development of programs for talented youth soccer players contains at least three objectives: enrollment into competitive leagues, promotion to professional status, and successful achievements in global competitions such as the World Cup and the Champions League. The global competitions can be identified as sport events, which are defined as the combination of performing athletes and spectators in the primary market of sport industry (Kang, 2002; Kang, 2005). According to Kang's literature, the competitions before promotion to professional status such as the leagues for youth soccer players and U-League for university student-athletes in South Korea can be defined as the participating market of Korean soccer industry (Kang, 2002; Kang, 2005).

After a glorious outcome in the World Cup in 2002, the Korean Football Association (KFA) attempts to excavate talented youths by operating talent development programs and financially supporting Korean youth soccer players who are playing in foreign countries (KFA, 2009). In

return, the youth players were required to dedicate maximal effort to manifest their potentials. According to the Korean Football Association (KFA), various development programs for youth soccer players are operated such as Golden Age Program for the players who are in the age range of U-8 to U-15 and registered in the association as youth soccer players. The latest program in 2018 is called Team Cha-Boom Plus which is managed by Bum-Kun Cha who is a South Korean football manager and former football player. Team Cha-Boom Plus selects youth soccer players who show their potential to be grown as successful professionals in its tryouts and play against with German youth clubs to experience global competitions and foreign football development.

Career in sports at the elite level comprises a laborious process combined with high intensity training for maximizing athletes' physical performance and endurance. According to Domingues, the training environment and coaches are significant assets in talent development as well as overall organization (Domingues et al., 2014). European countries such as England, Austria, Germany, Spain, and France are capable of providing the fulfilling environment and staffs to mature and debut the young Koreans. Meanwhile, professional clubs from other countries continue to visit South Korea (or the Republic of Korea, ROK) to scan talented youth footballers by organizing tryouts and establishing youth academies. Such active involvement from other countries creates a competition for South Korea

when attempting to harvest talented athletes.

In the perspective of an industrial market, the statistics provided by KFA support that South Korea has great potential in fostering various young footballers to professional status. According to the KFA's 2017 population statistics, 6466 U12 soccer players, 7823 U15 soccer players, and 6147 U18 soccer players were registered. Moreover, the total number of registered youth school teams in the KFA were counted as 424 schools and the total of registered youth clubs were 304 clubs. On the other hand, there were 86 registered intermediaries within the KFA who can be involved in player's transfer between clubs. The statistics show that there is a substantial amount of participants who are willing to be a professional footballer. However, youth soccer players in South Korea are exposed to environmental violence which includes physical abuse by coaches and seniors (Kim, 2010). It is questionable that how much do youth soccer players satisfy with current development environment and upgrade better talent development of Korean soccer industry for future generation. Therefore, the youth soccer players' satisfactions towards development environment and playing soccer need to be measured to protect their athletic careers.

Purpose of Research

The primary purpose of the study is to identify the satisfaction in talent development environment by youth soccer players. Potential

youngsters have different needs at different stages in their development and require the respective styles of supportive environments for fulfillment; including the support of professionals in talent development and the youth soccer players' parents (Martindale, Collins, & Daubney, 2005). In addition, this study aims to determine the differences of the satisfaction between U-14, U-15, and U-16 due to the difference of training environment for each age group. This study will attempt to investigate which factors have different levels of satisfaction in talent development environment for the youth soccer players. In conclusion, the present study aims to identify the factor which can have deficiency in talent development environment only in South Korea and the personal and environmental factors that affect youth athletes' satisfaction.

Martindale supports that the development of talent pathway for athletes is one of the crucial assignments of the global sport industry due to increasing participants and competitions in sport. As mentioned above, South Korea has an impressive youth population of participating in soccer, thus focusing on the process of the talent development programs in soccer are becoming more important for the South Korean industry's future. One major factor that cannot be changed and applies to everywhere is the quality and appropriateness of the coaching environment (Martindale, Collins, & Daubney, 2005). Most studies regarding talent development for youth soccer in South Korea focus on the intention to participating in training for

competitions and physical performance for the participating athletes. However, the contentment for long-term development focus by youth soccer players, which also includes personal beliefs and relationship between the athletes and coaches, is also an important factor before maximizing the performance for any competitions (Martindale et al., 2010). Therefore, there is a need for research that approaches the environment of youth soccer players in South Korea. This study will attempt this approach by applying Martindale's measurement which comprises of various environmental factors that can influence youth athletes' satisfaction in the development programs (Martindale et al., 2010). Thus, the objectives of this research are as follows:

1. Does each factor of talent development environment for youth soccer players in South Korea affect their satisfaction in playing soccer?
2. Does youth soccer players' satisfaction with each factor of talent development environment vary depending on the age group of youth soccer players?

Significance of Research

In the process of fulfilling the purpose of the study, this study contributes to the existent literature in several ways. First, the current study is the first study to investigate the satisfaction of talent development

environment by youth soccer players in South Korea. Various studies have been found regarding soccer coaches' satisfaction towards working environment; however, there is a lack of studies that ask the satisfaction of youth soccer players regarding training environment; which includes the relationship with their coaches and support from the teams or schools.

Moreover, the current study is expanding the use of Martindale's measurement from United Kingdom to Asia by applying Talent Development Environment Questionnaire (TDEQ) to South Korean soccer players. This approach towards youth soccer players and coaches in the Republic of Korea can be sensitive but sharp, as the environment and the training strategy that shape, challenge, and support developing talent is essential for success (Bloom, 1985; Côté, 1999; Csikszentmihalyi, Whalen, Wong, & Rathunde, 1993; Durand-Bush & Salmela, 2002; Gould, Dieffenbach, & Moffett, 2002; Martindale, Collins, & Abraham, 2007; Martindale, Collins, & Daubney, 2005). This study chose the measurement as one of the tools because the measurement can help in understanding the current environment by applying an athletes-centered approach and identifying the problems in youth soccer player's environment for their future development. More specifically, Martindale's measurement has strong potential to foster great talents and strengthening local competitions in South Korea by identifying the factors that stimulate athletes' satisfaction towards their playing environment.

The participants, who are in competitive levels of playing soccer, rely on mastery experience as the primary contributor to their self-efficacy beliefs due to their many opportunities for competitions (Munroe-Chandler, Hall, & Fishburne, 2008). To identify the satisfaction of receiving the golden opportunities for youth soccer players such as in training and competitions, the present study hypothesized that the satisfaction of each factor in Talent Development Environment Questionnaire (TDEQ) by youth soccer players in South Korea differs for each age group (H2). Thus, the participants will be separated into three different groups; U-14, U-15, and U-16.

Therefore, this research contributes to the study of the talent development of youth soccer in South Korea by applying Martindale's questionnaire which was firstly developed in 2010 by Martindale's research team (Martindale et al., 2010) to find the satisfaction in training environment by youth soccer players.

In the following sections, the definition of terms is used in the current study for better understanding. Next, the research methodology is used to answer the research questions to identify the relationship between the players and training environment and factors which stimulate youth soccer players' satisfaction.

Definition of Terms

Talent. According to Saether, the author indicated talent by stating it is something you have, something you are, something you can be, or something you can develop. Saether also indicated that this ability can be “seen as a static or dynamic concept”. The static definition contains talent “as something you have inherited, which implies a focus on the performance level at an early age, while the dynamic definition regards talent as something you can develop” (Saether, 2014). Singer and Janelle (1999) mentioned to support both of these following aspects, also views the static dimension by stating that it “disposes of a specific combination of anatomical-physical characteristics, abilities, and other personality traits”, and the dynamic by further indicating that “provided specific training and other environmental conditions are given”. Lastly, Saether indicated regarding talent further by stating that researchers have challenged the static definition since this approach focuses on a few early indicators of skills and performance (Saether, 2014). The development for this athletic concept is individual and therefore appears at different speeds by each participant (Gagne 2000; Martindale, Collins & Abraham 2007).

Talent Development. As mentioned above, this development’s status is completely up to the participating athletes’ performing and supporting conditions, so it appears at different speeds due to the properties of individual concept. Saether explained talent development by stating that

the development implies that athletes are provided with “a suitable learning environment” so that they have the opportunity to realize their potential (Saether, 2014). Moreover, Martindale described talent development as “long-term investment” to both athletes and teams which takes from beginning to end of their careers. Thus, Martindale mentioned that focusing on process is a core value in the talent development and a successful system may take a number of years to produce “winners” at an elite level (Martindale, et al., 2010).

Talent Development Environment Questionnaire. The questionnaire (Martindale et al., 2010) is developed by Martindale’s research team in 2010 which is youth athletes-centered approach. According to Martindale, this tool is “to facilitate the development of sporting potential to world-class standard (Martindale et al., 2010). The concept of this measurement is athletes-centered approach by asking the satisfaction to youth athletes. Also, the measurement contains seven different factors; long-term development focus, quality preparation, communication, understanding the athlete, support network, challenging and supportive environment, and long-term development fundamentals to measure the satisfaction in the environment of the talent development by youth athletes.

Theoretical Background

This study applied three theories to support the relationship between talent development environment and satisfaction of playing soccer in South Korea: the theory of deliberate practice, self-determination theory, and attachment theory.

The first theory is explaining how people who desire to become professionals can practice or train well to maximize their performance and reach at peak levels in their particular fields (Ericsson, Krampe, & Tesch-Romer, 1993). To become an expertise, participants must focus on developing the quality of performance and trying different methods of training; not just filling hours to finish daily practice. Thus, this theory can support and give more ideas to the process of youth soccer players' training environment. Secondly, the authors of self-determination theory (Ryan & Deci, 2000) indicated that intrinsic motivation shows greater strength compared to extrinsic motivation in completing tasks; since "autonomy" is one of the natural desires which a human has (Ryan & Deci, 2000). By applying this theory in the present research, this study identified youth soccer players' satisfaction towards personal decision-making and playing environments which include training and competitions. The last theory of this study is attachment theory by Bowlby (1982), which focuses on explaining the bonds that are formed in close relationships between infants and caregivers

Theory of Deliberate Practice and Talent Development Environment

Questionnaire (TDEQ)

The people who want to become professionals, they may need to be willing to sacrifice short-term pleasure for potential satisfaction of success. The outcome of this theory called the theory of deliberate practice does not come naturally or easily. It contains unenjoyable process and requires strong patience by participants because practice involves various failures before achievements. Ericsson is one of researchers who study regarding experts and professionals; how normal people improve at anything to become experts in particular fields. Experts can be identified as “outliers” who put tremendous amount of time to become professionals (Ericsson, Krampe, & Tesch-Romer, 1993). In decades of studies, Ericsson’s research team found out that practicing without specific plans or goals is not enough for the participants who want to become professionals by reaching at peak performance (Ericsson, Krampe, & Tesch-Romer, 1993). According to Ericsson, Krampe, and Tesch-Romer’s research paper, they stated that the participants who want to become professionals must engage in “deliberate practice” to maximize and reach at the elite level of particular fields. The authors also mentioned that at least 10,000 hours of deliberate practice can be required; however, filling 10,000 hours might give satisfaction to participants; however, filling amount of time period will not increase quality of performance.

Participants must focus on “methods of practice and quality of performance” to be expertise (Ericsson, Krampe, & Tesch-Romer, 1993), so this theory can be applying to both coaches and athletes. Repeating skills in training which the participants have already mastered will give them satisfaction in training; however, repeating same skills will not help the participants get better. The following theory involves stepping outside of the participants’ comfort zone and trying various types of activities beyond the participants’ current abilities. Moreover, the theory is emphasizing well-defined goals and the help of a teacher or expertise who makes a plan for achieving them. The students can scan and spot problems in their own performance while their teachers give feedback on students’ efforts. Applying the theory to the environment of talented youth soccer players’ training, coaches must do deliberate practice for the minimum of 10,000 hours with focusing on methods of practice and quality of performance which can be helped by the experts in soccer coaching for talented youth soccer players before they start coaching youth soccer players. In the perspective of youth soccer players, they must have desire to step up to the next levels and focus on current trainings which are operating by their coaches. Another important point is that the youngsters must have opened-ears during training sessions for understanding the feedbacks by the coaches and spot their own problems for development. Based on this theory, Martindale’s research team developed a questionnaire called the “Talent

Development Environment Questionnaire” in 2010 to identify the levels of satisfaction in training environments by youth soccer players (Martindale et al., 2010). Thus, this study hypothesized H-1 by stating that each factor of Talent Development Environment Questionnaire (TDEQ) affects youth soccer players’ satisfaction of playing soccer in South Korea.

Furthermore, this study hypothesized that *Quality Preparation* of TDEQ affects youth soccer players’ satisfaction in South Korea. According to Martindale, “*Quality Preparation*” is related to extent to which clear guidance and opportunities are in place “to provide and reinforce quality practice through training, recovery, and competition experiences” (Martindale, et al., 2010). Moreover, Martindale indicated that the need for practice to be more effortful and specifically designed to improve performance through goal setting, feedback, and opportunities for repetition (Martindale, et al., 2010 & Ericsson, Krampe, & Tesch-Romer, 1993). For example, the factor contains asking questions such as: “the guidelines in my sport regarding what I need to do to progress are not very clear” and “I am not taught that much about how to balance training, competing, and recovery”. These questions can measure the youth soccer players’ satisfaction in quality preparation which is managing by coaches. If the players who have higher self-efficacy in soccer performance will not get satisfied easily in any programs regarding the quality preparation because every player has different levels of performance and different requirements

regarding performance training (Martindale et al., 2010).

Self-Determination Theory

Self-determination theory is an approach to human motivation which concerns energy, direction, and, persistence; in the perspective of activation and intention. The authors of self-determination theory; Deci and Ryan, indicated that human beings can be proactive and engaged or, alternatively, passive and alienated, largely as a function of the social conditions in which they develop and function. Accordingly, they mentioned that research guided by self-determination theory has focused on the social-contextual conditions that facilitate versus forestall the natural processes of self-motivation and healthy psychological development. Specifically, factors have been examined that enhance versus undermine intrinsic motivation, self-regulation, and well-being. The findings have led to the postulate of three innate psychological needs which are competence, autonomy, and relatedness which when satisfied yield enhanced self-motivation and mental health and when thwarted lead to diminished motivation and well-being. Also considered is the significance of these psychological needs and processes within domains such as health care, education, and sport (Ryan & Deci, 2000). Ryan and Deci mentioned that people who got influenced by intrinsic motivation shows better performance in completing tasks than the people who got influenced by extrinsic motivation such as parents and other environmental factors. Thus, this theory is extremely important to youth

soccer players in South Korea since the players must display satisfied performance by themselves to attract coaches from other school teams and clubs for their career development. The seventh factor called *Long-Term Development Fundamentals* in TDEQ contains questions asking players' thinking for identifying youth soccer players' self-determination in playing soccer such as "I am involved in most decisions about my sport development". By applying this theory, the present study hypothesizes two hypotheses in the seventh factor of TDEQ; which are *Long-Term Development Fundamentals* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea (H1-7) and the satisfaction of *Long-Term Development Fundamentals* in TDEQ by youth soccer players in South Korea differs for each age group (H2-7). These hypotheses identify the differences regarding self-motivation and decision making towards the youth soccer players' environment. The crucial importance of self-motivation in this pursuit, athletes must be involved in decisions, where opportunities to develop long term stay open (Martindale et al., 2010). Moreover, Martindale highlighted that the important role of parents must not be underestimated even through the development years and beyond (e.g. Bloom, 1985; Côté, 1999; Gould et al., 2002; Martindale et al., 2010). Thus, this research will identify youth soccer players' satisfaction towards their career involvement.

Attachment Theory

Attachment theory is an established framework by Bowlby which aims to develop and explain an understanding of the bonds that are formed in close relationships. This theory was mainly derived through observing how infants interacted with their primary caregiver such as infant's mother (Bowlby, 1982). Moreover, Bowlby explained that during infancy individuals develop internal working models (IWM) of the self and others that determine the type of behavior they expect from their caregiver, principally the infant's mother. It is these IWM developed during the period of infancy which follows interactions with the primary caregiver that dictate the attachment style the individual develops (Bowlby, 1982). Moreover, Davis and Jowett identified whether coach-athlete relationship satisfaction and sport satisfaction were associated with athletes' attachment style relative to their coach (Davis & Jowett, 2010).

Attachment theory takes important role in this research because every factor in TDEQ contains questions which are asking the relationship between youth soccer players and their supporters. Various questions in TDEQ are asking to youth soccer players regarding their satisfaction towards their coaches and parents. For example, asking questions such as "my coach is a positive supporting influence on me" from *Long-Term Development Focus* in TDEQ and "I feel pressure from my mates in sport to do things differently from what my coaches are asking of me" from *Quality*

Preparation in TDEQ can show how youth athletes are thinking about their relationship with their coaches. More specifically, the factor called *Communication* in TDEQ measures how youth athletes are communicating with their coaches in today's training environment by asking a question such as "my coach explains how my training and competition program work together to help me develop". Therefore, factors in TDEQ will identify the attachment between youth soccer players and the adults who are supporting the players which include parents, coaches, and other professionals; who can help the players to improve their performance. By applying attachment theory, this study hypothesizes that each factor of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea (H1). Moreover, this research also measures the difference of satisfaction in each age group by hypothesizing the satisfaction of each factor in TDEQ by youth soccer players in South Korea differs for each age group (H2).

The content of the first hypothesis (H1-1) is that "*Long-Term Development Focus*" affects youth soccer players' satisfaction of playing soccer in South Korea. *Long-Term Development* is the first factor of Martindale's talent development environment questionnaire which is measuring the youth athletes' beliefs of future achievements. By using H1-1, this study is trying to measure the youth athletes' satisfaction towards coaches' instruction and the beliefs that they are going to be successful athletes in the future by training under their current coaches. For example,

asking a question such as: “my coach is good at helping me to understand my strengths and weaknesses in my sport” to the youth soccer players will be helpful to identify coaches’ personality and the athletes’ mindset towards their future challenges. However, youth soccer players can start fret about the relationship with their coaches, because the players can have different thinking and opinions about themselves compared to what coaches are thinking about the youth soccer players’ performance, especially in scanning each player’s weaknesses. The second hypothesis (H1-2) in H1 was briefly mentioned in the theory of deliberate practice; “*Quality Preparation* of TDEQ affects youth soccer players’ satisfaction of playing soccer in South Korea”. This hypothesis is strongly related with the combination of self-efficacy in soccer performance and the crucial nature of quality competition experiences for elite development by preparing maximized performance for every competition (Martindale, et al., 2010). By asking a question such as “I feel pressure from my mates in sport to do things differently from what my coaches are asking of me”, this study can measure how much do youth soccer players feel pressure to make different actions and this study can identify the differences for each grade by using the second hypothesis in H2; “the satisfaction of *Quality Preparation* in TDEQ by youth soccer players in South Korea differs for each age group” (H2-2). The third hypothesis (H1-3) in H1: “*Communication* of TDEQ affects youth soccer players’ satisfaction of playing soccer in South Korea”

can show how much do youth soccer players communicate with their coaches to develop their performance in playing soccer. If the youth soccer players who think that they are good at playing soccer, they will participate more into challenging situations with confidence (Mouloud & El-Kadder, 2016). In the factor of *Communication*, the question asks that “I regularly set my goals with my coach that are specific to my individual development” to youth athletes to measure the satisfaction of coach’s involvement in preparing for challenges. Moreover, the players will try to set more goals with higher levels of training and prepare to be in great shapes for competitions by communicating with their coaches. The fourth hypothesis (H1-4) in H1: “*Understanding the Athlete* of TDEQ affects youth soccer players’ satisfaction of playing soccer in South Korea” is related to the extent to which the coach understands the athlete in depth at a holistic level, and has developed a professional relationship with youth soccer players (Martindale, et al., 2010). Moreover, Martindale indicated that *Understanding the Athlete* by coaches is the combination of the complex, holistic nature of development, whereby a whole host of cognitive, physical, social, and performance based developments. This combination can trigger successful progression of youth athletes (Martindale, et al., 2010). However, coaches in South Korea can have different characteristics to their players, so youth soccer players can show various responses in answering a question such as “my coach rarely talks to me about my well-being” and “I

don't get much help to develop my mental toughness in sport effectively” due to different characteristics by coaches. The fifth hypothesis (H1-5) in H1: “*Support Network* of TDEQ affects youth soccer players’ satisfaction of playing soccer in South Korea” is measuring a coherent, approachable, and wide-ranging support network, which is available to help support and develop the athlete in all areas (Martindale, et al., 2010). Martindale mentioned regarding *Support Network* by stating a significant relationship between quality support and performance, while poor perceived support can lead to poor coping mechanisms and stress (Martindale, et al., 2010). Thus, attachment theory takes an important role in the fifth factor of TDEQ to scan the environment of supporting youngsters by adults. The sixth hypothesis (H1-6) in H1: “*Challenging and Supportive Environment* of TDEQ affects youth soccer players’ satisfaction of playing soccer in South Korea” identifies the optimal challenging environment status youth soccer players. Challenging competition and the optimal training environments are necessary to facilitate development to the elite level (Martindale, et al., 2010). Furthermore, this factor can be measured the difference of the satisfaction for each age group by using H2-6: the satisfaction of *Challenging and Supportive Environment* in TDEQ by youth soccer players in South Korea differs for each age group.

Hypotheses

Research hypotheses for the study have been formulated as demonstrated below. Two separate studies have been conceived to answer the above research questions accordingly.

H1: Each factor of Talent Development Environment Questionnaire (TDEQ) affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-1: *Long-Term Development Focus* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-2: *Quality Preparation* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-3: *Communication* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-4: *Understanding the Athlete* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-5: *Support Network* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-6: *Challenging and Supportive Environment* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H1-7: *Long-Term Development Fundamentals* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

H2: The satisfaction of each factor in Talent Development Environment Questionnaire (TDEQ) by youth soccer players in South Korea differs for each age group.

H2-1: The satisfaction of *Long-Term Development Focus* in TDEQ by youth soccer players in South Korea differs for each age group.

H2-2: The satisfaction of *Quality Preparation* in TDEQ by youth soccer players in South Korea differs for each age group.

H2-3: The satisfaction of *Communication* in TDEQ by youth soccer players in South Korea differs for each age group.

H2-4: The satisfaction of *Understanding the Athlete* in TDEQ by youth soccer players in South Korea differs for each age group.

H2-5: The satisfaction of *Support Network* in TDEQ by youth soccer players in South Korea differs for each age group.

H2-6: The satisfaction of *Challenging and Supportive Environment* in TDEQ by youth soccer players in South Korea differs for each age group.

H2-7: The satisfaction of *Long-Term Development Fundamentals* in TDEQ by youth soccer players in South Korea differs for each age group.

Methodology

Participants

Target participants were youth soccer players (n= 280, range 14 – 16 years) who are currently playing for their middle school teams and academies which are located in Seoul, to ensure a subject to item ratio of at least 4:1 (Martindale et al., 2010; Fabrigar, Wegener, MacCallum, & Strahan, 1999). The participants were all males and any participants who were not playing in soccer teams which should be registered in Korean Football Association, got ruled out from this survey. From the overall number of youth soccer players that have participated in the survey and responded back, Table 1 shows the descriptive statistics of this study. 103 (36.8) were the first grade students in middle school, 83 (29.6) were the second grade students in middle school, and 94 (33.6) were the third grade students in middle school.

Table 1. *Descriptive Statistics*

Variables	Categories	N	%
Gender	Male	280	100.0
	Female	0	0
Grade	1	103	36.8
	2	83	29.6
	3	94	33.6
Total		280	100.00

Procedure

All of participants equally filled out a modified version of Talent Development Environment Questionnaire. The questionnaire is translated from English to Korean and reduced number of questions from the original version of Talent Development Environment Questionnaire (Martindale et al., 2010) for understanding Korean culture and its environment. We contacted the department of physical education of middle schools and soccer academies in Seoul by phone calling for asking the permission of this survey. Once we received the permission from their soccer teams, we set specific date for our survey and briefly explained our research background and the purpose of this research to coaches, parents, and participants. Since the participants who are filling out the questionnaire are not over 19 years old, we asked to coaches and parents to fill out the agreement forms for participating in the survey. The survey of asking the satisfaction of talent development environment for youth soccer players was conducted 20 to 30 minutes after collecting all of the agreement forms which were written by coaches, parents, and actual participants. After collecting all the data, SPSS Statistics 25 program was used to analyze the data for this study.

Instruments

The questionnaire included:

1. Long-Term Development Focus (LTFOC)
2. Quality Preparation (QP)
3. Communication (COM)
4. Understanding the Athlete (UND)
5. Support Network (SN)
6. Challenging and Supportive Environment (CSE)
7. Long-Term Development Fundamentals (LTFUN)

Since this survey is conducted in South Korea by using Martindale's TDEQ, we modified the questionnaire by picking out the most fittable questionnaires which can help understanding better regarding South Korean soccer environment and translated to Korean language for youth participants. The modified questionnaire contains 7 factors which are same as the original version of Martindale's questionnaire and 22 questions by applying 6-point Likert Scale ranging from 1 (strongly disagree) to 6 (strongly agree). The questionnaire used in the study is shown in "Appendix".

1) Long-Term Development Focus

A four item 6 point Likert scale was adopted where the questions

were from Martindale's Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated from English to Korean to fit the studies' purpose of finding youth soccer players' satisfaction towards their *Long-Term Development Focus* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following questions asked to the respondents: "My coach is good at helping me to understand my strengths and weakness in playing soccer", "My coach is a positive supporting influence on me", "My coach cares more about helping me to become a professional/top level performer, than they do about having a winning team right now", and "My training is specifically designed to help me develop effectively in the long term".

2) Quality Preparation

A three item 6 point Likert scale was adopted where the questions were from Martindale's Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated from English to Korean to fit the studies' purpose of finding youth soccer players' satisfaction towards their *Quality Preparation* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following questions asked to the respondents: "I struggle to get good-quality competition experiences at the level I require", "I am not taught that much

how to balance training, competing, and recovery”, and “I feel pressure from my mates in soccer to do things differently from what my coaches are asking of me”.

3) Communication

A three item 6 point Likert scale was adopted where the questions were from Martindale’s Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated from English to Korean to fit the studies’ purpose of finding youth soccer players’ satisfaction towards their *Communication* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following questions asked to the respondents: “I regularly set goals with my coach that are specific to my individual development”, “My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, and tactically)”, and “My coach explains how my training and competition programme work together to help me develop”.

4) Understanding the Athlete

A two item 6 point Likert scale was adopted where the questions were from Martindale’s Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated

from English to Korean to fit the studies' purpose of finding youth soccer players' satisfaction towards their *Understanding the Athlete* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following questions asked to the respondents: "My coach doesn't appear to be that interested in my life outside of sport" and "I don't get much help to develop my mental toughness in playing soccer effectively".

5) Support Network

A three item 6 point Likert scale was adopted where the questions were from Martindale's Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated from English to Korean to fit the studies' purpose of finding youth soccer players' satisfaction towards their *Support Network* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following questions asked to the respondents: "Currently, I have access to a variety of different types of professionals to help my sports development (e.g. physiotherapist, sport psychologist, strength trainer, nutritionist, lifestyle advisor)", "I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor)", and "My training programmes are developed specifically to my needs".

6) Challenging and Supportive Environment

A three item 6 point Likert scale was adopted where the questions were from Martindale's Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated from English to Korean to fit the studies' purpose of finding youth soccer players' satisfaction towards their *Challenging and Supportive Environment* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following questions asked to the respondents: "I am regularly told that winning and losing just now does not indicate how successful I will be in the future", "I have the opportunity to train with performers who are at a level I am aspiring to", and "I don't often get any help from more experienced performers".

7) Long-Term Development Fundamentals

A four item 6 point Likert scale was adopted where the questions were from Martindale's Talent Development Environment Questionnaire (Martindale et al., 2010). These questions were modified and translated from English to Korean to fit the studies' purpose of finding youth soccer players' satisfaction towards their *Long-Term Development Fundamentals* of talent development environment in South Korea. The 6 point Likert scale from strongly disagreeing to strongly agreeing was used for the following

questions asked to the respondents: “I am encouraged to participate in other sports and/or cross train”, “My coaches make time to talk to my parents about me and what I am trying to achieve”, “My progress and personal performance is reviewed regularly on an individual basis”, and “I am involved in most decisions about my sport development”.

Results

Descriptive Statistics

In order to find out if the questions were reliable in this study, Cronbach's α is one of the general methods to measure internal consistency, and an alpha of 0.7 or above is acceptable for a measurement scale (Nunnally, 1978). Moreover, Nunnally indicated that new developed measures can be accepted with an alpha value of 0.60 (Nunnally, 1978). Accordingly, every factor has more than 0.7 value (Table 2), thus the survey questions of this research which includes Talent Development Environment Questionnaire have adequate reliability.

The total value of regression was 0.858, successfully providing support for the correlation between youth soccer players' satisfaction and TDEQ. According to Tabachnick & Fidell's standard assessment (2001), a value of 0.7 or above in regression is considered sufficient. Moreover, the value of R^2 in our research was 0.737, indicating that the dependent variable (youth soccer players' satisfaction) is explained by the independent variable (TDEQ) by 73.7%. Moreover, the number of significance probability from the relationship between youth soccer players' satisfaction and TDEQ was 0.000 ($P \leq 0.05$) and its F-value was 108.806; meaning that the model of regression is suitable for this research.

Table 2. *Assessing the Reliability of Scales, Cronbach's α*

Variables	Number of Questions	Cronbach's α
LTFOC	4	.812
QP	3	.838
COM	3	.802
UND	2	.844
SN	3	.725
CSE	3	.823
LTFUN	4	.728
Grade	1	.702
Position	1	.837
Satisfaction of Playing Soccer in South Korea	1	.711

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

Hypotheses Testing

The first hypothesis (H1) of this study was that each factor of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea. To identify specific satisfaction in each factor of TDEQ, we applied this hypothesis to all seven factors of TDEQ.

The first hypothesis in H1 was that *Long-Term Development Focus* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea (H1-1). To prove this hypothesis, regression analysis was used. The results in Table 3 showed that *Long-Term Development Focus* ($\beta=0.325$, $t=9.357$, $p<.0001$) has significant effect towards youth soccer players' satisfaction of playing soccer in South Korea. This means that youth soccer players in South Korea are satisfied with understanding their strengths and weaknesses which are pointed out by their coaches. Also, the players are satisfied with coaches' training programs for improving their physical performance. Thus, this result has shown to prove that *Long-Term Development Focus* and that H1-1 was proven to be significant.

H1-2 was that *Quality Preparation* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea. To prove this hypothesis, regression analysis was used. The results in Table 3 showed that *Quality Preparation* ($\beta=.010$, $t=.300$, $p=.764$) has non-significant effect towards youth soccer players' satisfaction of playing soccer in South Korea.

To be statistically significant, the p-value must be less than 0.05. Thus, this result cannot prove H1-2 for this study.

H1-3 was that *Communication* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea. To prove this hypothesis, regression analysis was used. The results in Table 3 showed that *Communication* ($\beta=.603$, $t=16.553$, $p<.0001$) has a positive impact towards youth soccer players' satisfaction of playing soccer in South Korea. This means that youth soccer players are satisfied with communicating with coaches to improve their physical performance such as discussing the players' current performance and setting goals with their coaches for the players' future development. Thus, this has shown to prove that *Communication* and that H1-3 was proven to be significant.

H1-4 was that *Understanding the Athlete* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea. To prove this hypothesis, regression analysis was used. The results in Table 3 showed that *Understanding the Athlete* ($\beta=.016$, $t=.492$, $p=.623$) has non-significant effect towards youth soccer players' satisfaction of playing soccer in South Korea. To be statistically significant, the p-value must be less than 0.05. Thus, this result cannot prove H1-4 for this study.

H1-5 was that *Support Network* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea. To prove this

hypothesis, regression analysis was used. The results in Table 3 showed that *Support Network* ($\beta=.112$, $t=3.501$, $p=.001$) has significant effect towards youth soccer players' satisfaction of playing soccer in South Korea. This means that the players are satisfied with their supporters such as physical and mental trainers, doctors, parents, and other professionals who help the players for becoming soccer players in the highest level. Thus, this has shown to prove that *Support Network* and that H1-5 was proven to be significant.

H1-6 was that *Challenging and Supportive Environment* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea. To prove this hypothesis, regression analysis was used. The results in Table 3 showed that *Challenging and Supportive Environment* ($\beta=.092$, $t=2.787$, $p=.006$) has a positive impact towards youth soccer players' satisfaction of playing soccer in South Korea. This means that youth soccer players are satisfied with regularly hearing that winning and losing just now does not indicate how successful the players will be in the future from their coaches. Also, the players are satisfied with getting help from more experienced performers in the same team. Thus, this has shown to prove that *Challenging and Supportive Environment* and that H1-6 was proven to be significant.

H1-7 was that *Long-Term Development Fundamentals* of TDEQ affects youth soccer players' satisfaction of playing soccer in South Korea.

To prove this hypothesis, regression analysis was used. The results in Table 3 showed that *Long-Term Development Fundamentals* ($\beta=.070$, $t=2.146$, $p=.033$) has significant effect towards youth soccer players' satisfaction of playing soccer in South Korea. This means that the players are satisfied with experiencing different sports other than playing soccer or doing cross train. Also, the players are satisfied with the communication which is between coaches and parents for reviewing the players' progress and performance. Lastly, the results show that the players are involved in most decisions about their sport development. Thus, Thus, this has shown to prove that *Long-Term Development Fundamentals* and that H1-7 was proven to be significant.

To find more specifically about affecting factors towards youth soccer players' satisfaction in playing soccer, this study also applied regression to each grade soccer players' satisfaction.

For the first grade of youth soccer players in the middle schools, the results show that 4 out of 7 independent variables statistically affect the first grade of youth soccer players' satisfaction in playing soccer (Table 3.1) which are *Long-Term Development Focus*, *Communication*, *Support Network*, and *Challenging and Supportive Environment*. The highest affecting factor towards the first grade of youth soccer players' satisfaction in playing soccer was *Long-Term Development Focus* ($\beta = .574$, $P < .0001$) and the lowest affecting factor was *Challenging and Supportive*

Environment ($\beta = .146, P = .039$).

For the second grade of youth soccer players in the middle schools, the results show that 4 out of 7 independent variables statistically affect the second grade of youth soccer players' satisfaction in playing soccer (Table 3.2) which are *Long-Term Development Focus*, *Quality Preparation*, *Communication*, and *Long-Term Development Fundamentals*. The highest affecting factor towards the second grade of youth soccer players' satisfaction in playing soccer was *Communication* ($\beta = .465, P < .0001$) and the lowest affecting factor was *Long-Term Development Fundamentals* ($\beta = .213, P = .004$).

For the third grade of youth soccer players in the middle schools, the results show that 3 out of 7 independent variables statistically affect the third grade of youth soccer players' satisfaction in playing soccer (Table 3.3) which are *Long-Term Development Focus*, *Communication*, and *Understanding the Athlete*. The highest affecting factor towards the third grade of youth soccer players' satisfaction in playing soccer was *Communication* ($\beta = .528, P < .0001$) and the lowest affecting factor was *Long-Term Development Focus* ($\beta = .241, P = .001$).

Table 3. *The results of regression between youth soccer players' satisfaction and each factor of talent development environment.*

Dependent Variables	Independent Variables	Standard Error	β	t-value	Sig.
Youth Soccer Players' Satisfaction	LTFOC	0.041	.325	9.357	.000**
	QP	0.033	.010	.300	.764
	COM	0.026	.603	16.553	.000**
	UND	0.032	.016	.492	.623
	SN	0.038	.112	3.501	.001
	CSE	0.038	.092	2.787	.006
	LTFUN	0.051	.070	2.146	.033

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

$R = .858$, $R^2 = .737$, $F = 108.806$, $P = .000^{**}$, ($*p < 0.05$, $**p < 0.01$)

Table 3.1 *The results of regression between the first grade youth soccer players' satisfaction and each factor of talent development environment.*

Dependent Variables	Independent Variables	Standard Error	β	t-value	Sig.
The First Grade Soccer Players' Satisfaction	LTFOC	.072	.574	7.990	.000**
	QP	.072	.010	.154	.878
	COM	.080	.169	2.466	.015
	UND	.067	.070	1.026	.308
	SN	.072	.192	2.884	.005
	CSE	.069	.146	2.091	.039
	LTFUN	.100	.002	.032	.975

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

$R = .790$, $R^2 = .624$, $F = 22.531$, $P = .000^{**}$, ($*p < 0.05$, $**p < 0.01$)

Table 3.2 *The results of regression between the second grade youth soccer players' satisfaction and each factor of talent development environment.*

Dependent Variables	Independent Variables	Standard Error	β	t-value	Sig.
The Second Grade Soccer Players' Satisfaction	LTFOC	.057	.294	4.057	.000**
	QP	.052	.325	4.356	.000**
	COM	.050	.465	6.150	.000**
	UND	.047	-.048	-.646	.520
	SN	.051	.045	.621	.537
	CSE	.054	-.018	-.256	.799
	LTFUN	.056	.213	2.946	.004

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

$R = .803$, $R^2 = .644$, $F = 19.406$, $P = .000^{**}$, ($*p < 0.05$, $**p < 0.01$)

Table 3.3 *The results of regression between the third grade youth soccer players' satisfaction and each factor of talent development environment.*

Dependent Variables	Independent Variables	Standard Error	β	t-value	Sig.
The Third Grade Soccer Players' Satisfaction	LTFOC	.045	.241	3.412	.001
	QP	.030	.005	.068	.946
	COM	.038	.528	7.205	.000**
	UND	.041	.381	5.346	.000**
	SN	.041	-.051	-.738	.462
	CSE	.053	-.115	-1.608	.111
	LTFUN	.067	-.074	-1.050	.297

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

$R = .777$, $R^2 = .604$, $F = 18.759$, $P = .000^{**}$, ($*p < 0.05$, $**p < 0.01$)

Table 4. *Results of Shapiro-Wilk's Test of Normality*

Variables	Grade	Shapiro-Wilk's Test		
		Statistic	Df	Sig.
LTFOC	1	0.973	103	0.031
	2	0.968	83	0.036
	3	0.963	94	0.009
QP	1	0.967	103	0.011
	2	0.969	83	0.041
	3	0.949	94	0.001
COM	1	0.970	103	0.021
	2	0.963	83	0.016
	3	0.899	94	0.000
UND	1	0.957	103	0.002
	2	0.961	83	0.012
	3	0.951	94	0.001
SN	1	0.967	103	0.012
	2	0.971	83	0.55
	3	0.973	94	0.045
CSE	1	0.963	103	0.005
	2	0.978	83	0.168
	3	0.952	94	0.002
LTFUN	1	0.981	103	0.159
	2	0.949	83	0.002
	3	0.928	94	0.000

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

The results of Shapiro-Wilk's test of normality showed that all variables in Talent Development Environment Questionnaire (with the exception of *Support Network* and *Challenging and Supportive Environment* for grade 2 soccer players and *Long-Term Development Fundamentals* for grade 1 soccer players) showed to be significant. The Shapiro-Wilk test is considered as a conservative measurement in statistics when sample sizes are larger than 100 and the central limit theorem states that samples from participants with finite variance will approach a normal distribution regardless of the distribution of the population, it was considered adequate to form parametric evaluations. Therefore, the results of ANOVA were examined with prudence and the Levene's test for equality of variance was conducted since assuming the variance of the groups being compared are homogeneous in ANOVA tests.

Results of the Levene's test showed that at the 0.05 level, the variable of *Long-Term Development Fundamentals* did not exhibit homogeneity of variance. The Brown-Forsythe tests are considered when comparing means, especially when the assumption of homogeneity is violated (Glass & Hopkins, 1996). Therefore, ANOVA and the Brown-Forsythe tests were used to analyze the results for the second hypothesis.

Table 5. *Levene's Test for Equality of Variance*

Variables	Levene Statistic	DF1	DF2	Sig.
LTFOC	0.482	2	277	0.618
QP	0.526	2	277	0.621
COM	0.182	2	277	0.811
UND	2.440	2	277	0.089
SN	0.190	2	277	0.827
CSE	0.112	2	277	0.592
LTFUN	13.310	2	277	0.000

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

Table 6. *Brown-Forsythe Robust Tests of Equality of Means*

Variables	Test Type	Statistics	DF1	DF2	Sig.
LTFOC	Brown-Forsythe	83.517	2	275.466	.000
QP	Brown-Forsythe	9.930	2	261.572	.000
COM	Brown-Forsythe	212.777	2	238.795	.000
UND	Brown-Forsythe	5.546	2	262.346	.004
SN	Brown-Forsythe	15.994	2	269.389	.000
CSE	Brown-Forsythe	11.773	2	251.473	.000
LTFUN	Brown-Forsythe	13.157	2	239.102	.000

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

Results of the Brown-Forsythe tests were significant for every variable in Talent Development Environment Questionnaire. Therefore, ANOVA tests were used and confirmed by the additional tests to prove the second hypothesis.

The second hypothesis (H2) of this study was that the satisfaction of each factor in Talent Development Environment Questionnaire (TDEQ) by youth soccer players in South Korea differs for each age group. To identify specific difference for each grade, we applied this hypothesis to all seven factors of TDEQ. Moreover, a one-way ANOVA was conducted as well as Tukey post-hoc tests to compare the youth soccer players' satisfaction in

each age group. The results showed that all of the independent variables from TDEQ on the youth soccer players' satisfaction were statistically significant. The results of the ANOVA tests are shown in table 7.

The hypothesis of H2-1 was that the satisfaction of *Long-Term Development Focus* in TDEQ by youth soccer players in South Korea differs for each age group. The results of *Long-Term Development Focus* in table 7, produced a critical value of $F=82.684$ and significance level of $p<0.0001$. Thus, the results of *Long-Term Development Focus* and H2-1 were proven to be significant.

H2-2 was that the satisfaction of *Quality Preparation* in TDEQ by youth soccer players in South Korea differs for each age group. The results of *Quality Preparation* in table 7, produced a critical value of $F=9.926$ and significance level of $p<0.0001$. Thus, the results of *Quality Preparation* and H2-2 were proven to be significant.

H2-3 was that the satisfaction of *Communication* in TDEQ by youth soccer players in South Korea differs for each age group. The results of *Communication* in table 7, produced a critical value of $F=208.472$ which is the highest F-value in table 4 and significance level of $p<0.0001$. Thus, the results of *Communication* and H2-3 were proven to be significant.

H2-4 was that the satisfaction of *Understanding the Athlete* in TDEQ by youth soccer players in South Korea differs for each age group.

The results of *Understanding the Athlete* in table 7, produced a critical value of $F=5.575$ and significance level of $p=0.004$. Thus, the results of *Understanding the Athlete* and H2-4 were proven to be significant.

H2-5 was that the satisfaction of *Support Network* in TDEQ by youth soccer players in South Korea differs for each age group. The results of *Support Network* in table 7, produced a critical value of $F=16.065$ and significance level of $p<0.0001$. Thus, the results of *Support Network* and H2-5 were proven to be significant.

H2-6 was that the satisfaction of *Challenging and Supportive Environment* in TDEQ by youth soccer players in South Korea differs for each age group. The results of *Challenging and Supportive Environment* in table 7, produced a critical value of $F=11.847$ and significance level of $p<0.0001$. Thus, the results of *Challenging and Supportive Environment* and H2-6 were proven to be significant.

H2-7 was that the satisfaction of *Long-Term Development Fundamentals* in TDEQ by youth soccer players in South Korea differs for each age group. The results of *Long-Term Development Fundamentals* in table 7, produced a critical value of $F=12.655$ and significance level of $p<0.0001$. Thus, the results of *Long-Term Development Fundamentals* and H2-7 were proven to be significant.

To identify more specific differences between the youth soccer

players' satisfaction in each grade and the variables of TDEQ, one of the series of Tukey post-hoc tests were conducted. The results of the post-hoc tests can be seen below in table 8. The results of Tukey post-hoc tests allowed the following conclusions which are listed below:

- a) The satisfaction of youth soccer players in all grades is statistically significant to each other in *Long-Term Development Focus*.
- b) The satisfaction of youth soccer players between grade 1 and grade 3 and between grade 2 and grade 3 are statistically significant. However, the satisfaction between grade 1 and grade 2 is not significant in *Quality Preparation*.
- c) The satisfaction of youth soccer players in all grades is statistically significant to each other in *Communication*.
- d) The satisfaction of youth soccer players in grade 1 is statistically significant comparing with grade 2 and grade 3. However, the satisfaction between grade 2 and grade 3 is not significant in *Understanding the Athlete*.
- e) The satisfaction of youth soccer in grade 1 is statistically significant comparing with grade 2 and grade 3. However, the satisfaction between grade 2 and grade 3 is not significant in *Support Network*.
- f) The satisfaction of youth soccer players between grade 1 and grade 3 and between grade 2 and grade 3 is statistically significant.

However, the satisfaction between grade 1 and grade 2 is not significant in *Challenging and Supportive Environment*.

- g) The satisfaction of youth soccer players in grade 1 is statistically significant comparing with grade 2 and grade 3. However, the satisfaction between grade 2 and grade 3 is not significant in *Long-Term Development Fundamentals*.

Table 7. The results of ANOVA for youth soccer players' satisfaction; dividing into grade 1, grade 2, and grade 3.

Variables	Grade	Mean	Min.	Max.	SD	F-Value
LTFOC	1	3.5801	2.00	4.75	.5953	82.684 / .000**
	2	4.1536	2.50	5.25	.5422	
	3	4.6090	2.75	6.00	.5445	
QP	1	3.9126	1.33	5.33	.7167	9.926 / .000**
	2	4.1446	2.33	5.67	.7273	
	3	3.6206	1.00	5.00	.8982	
COM	1	2.3528	1.00	4.00	.6857	208.472/ .000**
	2	3.3012	1.67	4.67	.5450	
	3	4.4965	2.33	5.67	.9155	
UND	1	4.1408	2.00	6.00	.8950	5.575/.004**
	2	3.8133	1.50	5.50	.9263	
	3	3.7606	1.50	5.50	.7716	
SN	1	3.3786	1.67	5.00	.6618	16.065/.000**
	2	3.7631	1.67	5.33	.6897	
	3	3.9043	2.33	5.33	.6749	
CSE	1	2.9871	1.33	4.67	.7482	11.847/.000**
	2	3.0723	1.33	5.00	.7740	
	3	3.4504	2.33	4.67	.5652	
LTFUN	1	3.2427	1.25	5.00	.6600	12.655/.000**
	2	3.5181	2.50	5.25	.4794	
	3	3.5984	2.25	4.50	.3577	

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

Table 8. *The results of Post Hoc Tests – Tukey*

Variables	Grade (I)	Grade (J)	Mean Difference	Sig.
			(I-J)	
LTfoc	1	2	-.57352	.000
		3	-1.02895	.000
	2	1	.57352	.000
		3	-.45543	.000
	3	1	1.02895	.000
		2	.45543	.000
QP	1	2	-.23196	.114
		3	.29205	.026
	2	1	.23196	.114
		3	.52401	.000
	3	1	-.29205	.026
		2	-.52401	.000
COM	1	2	-.94845	.000
		3	-2.14370	.000
	2	1	.94845	.000
		3	-1.19525	.000
	3	1	2.14370	.000
		2	1.19525	.000
UND	1	2	.32752	.029
		3	.38014	.006
	2	1	-.32752	.029
		3	.05261	.914
	3	1	-.38014	.006
		2	-.05261	.914
SN	1	2	-.38441	.000
		3	-.52561	.000
	2	1	.38441	.000
		3	-.14120	.348
	3	1	.52561	.000
		2	.14120	.348

Continued on next page

Table 8. *The results of Post Hoc Tests – Tukey (continued from previous page)*

Variables	Grade (I)	Grade (J)	Mean Difference	Sig.
			(I-J)	
CSE	1	2	-.08523	.688
		3	-.46330	.000
	2	1	.08523	.688
		3	-.37807	.001
	3	1	.46330	.000
		2	.37807	.001
LTfun	1	2	-.27535	.001
		3	-.35569	.000
	2	1	.27535	.001
		3	-.08033	.563
	3	1	.35569	.000
		2	.08033	.563

Note: LTFOC; Long-Term Development Focus, QP; Quality Preparation, COM; Communication, UND; Understanding the Athlete, SN; Support Network, CSE; Challenging and Supportive Environment, LTFUN; Long-Term Development Fundamentals.

Summary of Findings

Table 9. *The summary of regression between all youth soccer players' satisfaction and each factor of talent development environment.*

Hypotheses	Results
H1-1 (Long-Term Development Focus)	Significant ($\beta=.325$, $p<.0001$)
H1-2 (Quality Preparation)	Not Significant ($\beta=.010$, $p=.764$)
H1-3 (Communication)	Significant ($\beta=.603$, $p<.0001$)
H1-4 (Understanding the Athlete)	Not Significant ($\beta=.016$, $p=.623$)
H1-5 (Support Network)	Significant ($\beta=.112$, $p=.001$)
H1-6 (Challenging and Supportive Environment)	Significant ($\beta=.092$, $p=.006$)
H1-7 (Long-Term Dev. Fundamentals)	Significant ($\beta=.070$, $p=.033$)

This study used the regression as the main methodology of analyzing the collected data and applied by two different ways: applying the regression to each grade soccer players' satisfaction of playing soccer (Table 3.1, Table 3.2, and Table 3.3) and applying the regression to all soccer players' satisfaction of playing soccer at once (Table 3).

By testing the regression for each grade soccer players' satisfaction, this study has found out that soccer players in each grade of middle schools

are influenced by different factors of TDEQ. The footballers in the first grade of their middle school had 4 out of 7 independent variables which statistically affect their satisfaction in playing soccer: *Long-Term Development Focus*, *Communication*, *Support Network*, and *Challenging and Supportive Environment*. Also, the second grade of footballers had 4 out of 7 independent variables which statistically affect their satisfaction in playing soccer: *Long-Term Development Focus*, *Quality Preparation*, *Communication*, and *Long-Term Development Fundamentals*. Lastly, the third grade of footballers had 3 out of 7 independent variables which statistically affect the third grade of youth soccer players' satisfaction in playing soccer: *Long-Term Development Focus*, *Communication*, and *Understanding the Athlete*.

The factors called *Long-Term Development Focus* and *Communication* were similarly affected to all footballers' satisfaction of playing soccer. To be more specifically, *Communication* of TDEQ for the second and third grade of soccer players is determined as the highest affecting factor towards their satisfaction of playing soccer in this study. On the other hand, the factors of TDEQ called *Support Network* and *Challenging and Supportive Environment* were statistically affected only for the first grade footballers. Also, *Quality Preparation* and *Long-Term Development Fundamentals* were statistically affected only for the second grade soccer players' satisfaction. For the third grade soccer players'

satisfaction, *Understanding the Athlete* was the different factor that affected only for the third grade soccer players' satisfaction of playing soccer.

From testing H1, the results show that 5 out of 7 independent variables statistically affect all of youth soccer players' satisfaction of playing soccer (table 3) which are *Long-Term Development Focus*, *Communication*, *Support Network*, *Challenging* and *Supportive Environment*, and *Long-Term Development Fundamentals*. This means that as the players satisfy with the 5 factors of training environment, their overall satisfaction in playing soccer positively increases. The highest effect towards the satisfaction of playing soccer by the independent variables was *Communication* ($\beta = .603$, $P < .0001$) for all youth soccer players. The results displayed that the youth athletes communicate well with their coaches for training plans and were generally satisfied when discussing improvement methods for their performance. Communicating with youth athletes can be one of the methodologies to improve their physical and mental performance by increasing sport satisfaction (Martindale et al., 2010; Bowlby, 1982; & Davis & Jowett, 2010). According to Davis and Jowett, they indicated that if players satisfy with the relationship with their coaches, the players' sport satisfaction can be increased. This can take an important role to build intrinsic motivation for the athletes who have to develop their performance by various competitions (Deci, 2000). Moreover, the results of *Long-Term Development Focus* which is the second highest factor of TDEQ

for all soccer players shows that the coaches clearly gave feedbacks regarding the players' current performance and explained the purpose of each training drill for their youth soccer players so that the players understand the necessary foundation underlined by the training drills. Thus, *Communication* and *Long-Term Development Focus* of TDEQ in South Korea have substantial effect to youth soccer players' satisfaction in playing soccer. On the other hand, the lowest effect towards the satisfaction of playing soccer by the independent variables was *Long-Term Development Fundamentals* ($\beta = .070$, $P = .033$) which means that parents' involvement in playing soccer such as caring about the players' performance and the communication between coaches and parents affect "slightly" to youth soccer players' satisfaction in playing soccer. According to Rhea and Lavinge's research, they indicated that developing optimal conditioning programs is another role for coaches to improve the athletes' physical performance (Rhea & Lavinge, 2009) which also includes communication with caregivers. Thus, coaches who are working with youth soccer players in South Korea should focus on matching the right quality of competitions for each footballer for augmentation in the satisfaction of competing. An ideal match would implicate a comparable level of individual skills as well as team performance. Furthermore, conditioning is an important aspect for the improvement and long-term performance of athletes, thus teaching how to recover from previous trainings or competitions is critical (Rhea &

Lavinge, 2009). Lastly, the coaches should develop ways to establish motivational encouragement within the players and parents as well as with the staffs of coaching team.

In *Challenging and Supportive Environment* of TDEQ in South Korea, the youth soccer players are satisfied with the coaches excessively prioritizing current games than future competitions. However, prioritizing short term results cannot guarantee the future of youth soccer players' careers. Coaches and administrators should focus on youth development as "long-term investment" (Martindale et al., 2010). Also, the youth soccer players are satisfied with having various opportunities to play against opponents who are acknowledged by the youth soccer players. The interactions between juniors and seniors who were in the same team and progressed in their soccer career are satisfied by current youth soccer players.

Therefore, this study supports that there are no short-cuts in producing talent youth players to successful professionals, understanding effective processes is particularly important within the context of talent development (Martindale et al., 2010). Coaches should have abilities to plan long-term processes for training talented youth soccer players, not prioritizing current competitions.

In *Understanding the Athlete* of TDEQ in South Korea, the youth

soccer players are satisfied with the respective attitude of coaches toward the daily life of players. According to the response of players, their coaches care for the daily patterns of coaches, but more focus on trainings and competitions. Bowlby's attachment theory indicates that youths at this age are at a period of development of internal working models for themselves, which aids in the determination of the type of behavior they expect from their caregiver (Bowlby, 1982). Moreover, the satisfaction of coach-athlete relationship and sport satisfaction are associated with the ability to adapt to the preferred style of the children (Davis & Jowett, 2010). Another point is that prioritizing short-term results and less caring players' daily patterns can be related with coaches' working environment in South Korea. Since their jobs are unstable to live better quality of lives, they have to make quick results with great performance to extend their contracts or transfer to better clubs. Thus, the coaches might select players who show great performance at the moment to competitions, not fostering players who have great potential to be grown as successful athletes. The coaches are advised to examine their players' daily life and their daily patterns to increase the satisfaction of coach-athlete relationship for both coaches and players. Another finding in *Understanding the Athlete* of TDEQ in South Korea is that the coaches teach well regarding building mental toughness. Tough mentality constitutes of self-confidence, which refers to the belief of succeeding in specific tasks, skills, or under specific conditions (Bandura,

1986 & Munroe-Chandler, K., Hall, C., & Fishburne, G., 2008).

Accordingly, coaches should make their players feel that they are cared by teams whether they are on the pitch or outside of the pitch. Also, coaches should keep developing their techniques for training youth soccer players' mentality towards preparing competitions by combining both physical and mental trainings to develop players' performance in the future.

Table 10. *The summary of ANOVA for youth soccer players' satisfaction; dividing into grade 1, grade 2, and grade 3.*

Hypotheses	Results
H2-1 (Long-Term Development Focus)	Significant (F=82.684, p<0.0001)
H2-2 (Quality Preparation)	Significant (F=9.926, p<0.0001)
H2-3 (Communication)	Significant (F=208.472, p<0.0001)
H2-4 (Understanding the Athlete)	Significant (F=5.575, p=0.004)
H2-5 (Support Network)	Significant (F=16.065, p<0.0001)
H2-6 (Challenging and Supportive Environment)	Significant (F=11.847, p<0.0001)
H2-7 (Long-Term Development Fundamentals)	Significant (F=12.655, p<0.0001)

The second research question of this study was finding the difference in degree of satisfaction between each factors of talent development environment between grade 1, grade 2, and grade 3 of middle school soccer players. This research found out that the satisfaction of TDEQ differs for each age group by showing significant F-Values in each variable

of TDEQ.

The means of the satisfaction of youth soccer players in all grades increase as they age in *Long-Term Development Focus, Communication, Support Network, Challenging and Supportive Environment, and Long-Term Development Fundamentals*. However, the means of the satisfaction of youth soccer players fluctuate in *Quality Preparation* with age. The players' satisfaction in the second grade footballers are higher than the first grade, then their satisfaction decreases when they become the third grade footballers in middle schools. As mentioned above, coaches should train their abilities to coach optimal conditionings to their players in middle school and satisfy their players by matching with the opponents who have the optimal qualities in competing. Furthermore, this research found out that the means of the satisfaction of youth soccer players in all grades decrease as they age in *Understanding the Athlete* which shows their coaches' involvement other than playing soccer. The relationship between coaches and athletes is extremely important to develop athletes' performance whether they are on the pitch or outside of the pitch. Coaches should take care more their players as they age, so they can feel the care by the coaches and teams and find their psychological stabilities.

Discussions and Conclusion

The purpose of this study is to identify the factors involved in the satisfaction of talent development environment for youth soccer players in South Korea from students in grade 1 to grade 3 of middle schools. This section provides implications with regards to statistical tests and compares the present study with previous research. Lastly, the limitations of this study and conclusion of this research are proposed at the end of the chapter.

Theoretical Implications

The present study provides new insights on managing youth soccer players' development by answering two research questions of this study. Examining the relationship between talent development environment and satisfaction of playing soccer by South Korean youngsters produces more specific details in terms of training strategies and youth soccer management for providers of the participating markets of the soccer industry in South Korea (Kang, 2002; Kang, 2005).

The first research question attempts to identify the putative factors of talent development environment towards youth soccer players' satisfaction in South Korea. Previous studies focused on researching youth soccer players' psychological factors regarding their talent development environment in European and American countries (Munroe-Chandler et al., 2008; Ryan & Deci, 2000; Saether, 2014; & Martindale et al., 2010). Thus,

there are lack of studies regarding youth soccer players' psychological satisfaction of playing soccer in South Korean talent development environment which includes asking the players' satisfaction of the relationship with their coaches.

The second research question of this study was finding the difference in degree of satisfaction between each factors of talent development environment between grade 1, grade 2, and grade 3 of middle school soccer players. Since previous studies identified the satisfaction of talent development environment for European and American youth soccer players (Martindale et al., 2005/2007/2010; Domingues, Cavichioli, & Goncalves, 2014; & Kannekens, Elferink-Gemser, & Visscher, 2011), there are lack of studies for the youth soccer players in South Korea. Thus, this study is the first study in researching the satisfaction of talent development environment by youth soccer players in the Republic of Korea and contributes in identifying factors that can influence the players' satisfaction in Asia at a wider scope, thus expanding the range of knowledge regarding the satisfaction of talent development environment. Moreover, this study has contributed in finding the factors of talent development environment that statistically affect youth soccer players' satisfaction in the Republic of Korea. The youth soccer players in the Republic of Korea satisfy playing soccer by showing positive responses from the factors called: *Long-Term Development Focus, Communication, Support Network,*

Challenging and Supportive Environment, and Long-Term Development

Fundamentals of TDEQ by verbally and physically interacting with their supporters regarding performance. Thus, this study supports that as the rate of the satisfaction of the talent development environment increases by Korean youth soccer players, their satisfaction of playing soccer also has increased due to satisfying the talent environment.

This study also has contributed in identifying the difference of satisfaction of talent development environment by youth soccer players between grade 1, grade2, and grade 3 in middle schools. According to the value of β in each result of the regression from this study supports that every factor from TDEQ shows different influence towards youth soccer players' satisfaction of playing soccer in each grade. Since the results of ANOVA tests and Brown-Forsythe Robust Tests of Equality of Means from this study show significant statistics, the results of testing the second hypothesis of this study supports that the satisfaction of each factor in Talent Development Environment Questionnaire (TDEQ) by youth soccer players in South Korea differs for each age group. Thus, this study academically supports that every youth soccer player needs different environment of training with appropriate expertise (Martindale et al., 2010) to improve and feel the satisfaction towards their performance.

Furthermore, this study found out that the means of the satisfaction of youth soccer players in all grades decrease as they age in the fourth factor

called *Understanding the Athlete*, which shows their coaches' involvement other than playing soccer. Thus, this study academically supports that coaches' involvement behavior needs to be developed and attachment with youth soccer players is vitally necessary to increase youth soccer players' satisfaction in playing soccer. The present study extends the literature of sport management by supporting that the environment must focus and evaluate "the process of talent development" (Martindale et al., 2010) as opposed to short-term results for protecting and developing youth soccer players' potential which is to be grown as successful athletes.

Managerial Implications

Youth soccer players' satisfaction should be number one goal to any academies or clubs which are running talent development programs. Youth soccer players' sport satisfaction depends on coaches' performance towards their players (Davis & Jowett, 2010). The next goal should be focusing on the most effective processes in training talented youth soccer players. Moreover, coaches in youth teams have to develop the environment where the players can share their ideas and discuss together regarding their performance such as skills and strategical movements. Thus, every program in talent development should be created after understanding youth soccer players' psychological factors in talent development such as their satisfaction, strengths, and weaknesses. Hired coaches by academies and clubs should have abilities to think both in the perspective of players and

managers. Moreover, they should focus more on the process evaluation than short-term results since the significant factors of talent development environment have been supported by this research. Soccer academies and teams in the Republic of Korea can fix and develop their youth soccer players' programs by positively maximizing the significant factors of TDEQ that affect South Korean youngsters such as *Long-Term Development Focus, Communication, Support Network, Challenging and Supportive Environment, and Long-Term Development Fundamentals*. If academies and teams can maintain the adequate rate of satisfaction by youth soccer players, the South Korean soccer industry can foster great talents in playing soccer and strengthen local competitions in South Korea. Also, the possibility of homegrown debuts by South Korean youngsters will increase in the perspective of professional levels which are K-League 1 and K-League 2. In the perspective of sport management, professional soccer clubs in South Korea can join the business of "world trading" with their players. More specifically, well-trained homegrown players who have great talents can bring great financial benefits by transferring to foreign clubs from their home clubs in South Korea. The financial benefits can create various options for the development of the primary market and derivative market in Korean soccer industry (Kang, 2002; Kang, 2005). The professional clubs in South Korea can invest the money by developing their youth soccer systems, purchasing young foreign players who have potential in making successful

careers in South Korea, or contracting with famous footballers in the world to attract soccer fan's interests. If the clubs can invest to one of these options, the leagues can be developed for playing better quality of soccer and the possibility of attendance rate and the media rights of K-League can increase which are contributing in the development of the primary market and derivative market in Korean soccer industry.

Limitations and Future Research

In this research, there exists various limitations such as conducting the research only with male players in middle schools and focusing on one sport: soccer. Furthermore, various factors are detected as low-influencing factors towards players' satisfaction from the results of this study. Thus, researches are required for the low-influencing factors to improve players' satisfaction. Since this study compared the difference of youth soccer players' satisfaction by each grade, it would be interesting to compare their satisfaction by each position in playing soccer. This study can be applied to any other researches regarding talent development environment. For example, it would be interesting to determine the difference in satisfaction of talent development environment between male and female players or the research which can identify the satisfaction of high school student-athletes and university student-athletes in South Korea by using this study's instrumentation. Lastly, this study can be compared with different talent development environments which are located in other Asian or foreign

countries. Comparing environmental factors and current satisfaction in playing soccer between each country can provide implications for sport professionals.

Conclusion

The purpose of the study was to find the satisfaction in talent development environment by youth soccer players in South Korea. Through the study, 5 out of 7 variables of TDEQ have been found as significant factors for all youth soccer players from grade 1 to grade 3 in South Korean middle schools: *Long-Term Development Focus*, *Communication*, *Support Network*, *Challenging and Supportive Environment*, and *Long-Term Development Fundamentals*. Thus, this study has found out that the players' overall satisfaction in playing soccer increases as they satisfy with their 5 environmental factors of talent development. The influencing factors of talent development environment in South Korea can develop Korean soccer industry, especially for participating markets in South Korea by increasing players' satisfaction towards talent development environment and playing soccer.

In the perspective of sporting providers of participating markets in Korean soccer industry, the present study gives ideas to coaches and sport administrators who are involved in talent development programs. Especially in focusing more on effective processes in searching and training talented

youth soccer players with patience rather than prioritizing current competitions. Since the satisfaction of coach-athlete relationship and overall sport satisfaction are associated with athletes' attachment towards their coaches (Davis & Jowett, 2010), increasing the youth soccer players' satisfaction in talent development environment can be the solution for fostering great talents and strengthening local competitions in South Korea. Thus, every supporting program of talent development for youth soccer players must have clear goal settings and create the environment where youth soccer players can respect each other in every competition and focus on developing their techniques in playing soccer as a long-term investment of South Korean soccer industry. Moreover, this study shows that Korean coaches' care in players' daily life patterns is insufficient for youth soccer players' development due to prioritizing current competitions by coaches and their unstable working environments. Thus, the sport policy regarding coaches' working environment in South Korea which includes license approval by football associations and minimum wage has to be improved or reformed to protect soccer coaching industry and talent development in South Korea.

Developing participating markets of Korean soccer industry by fostering players who have great potential to be grown as successful footballers can contribute in developing the primary market of Korean soccer industry where professional footballers perform for spectators who

buy tickets to watch professional competitions. Competitions which play by great youngsters who are fit in talent development environment in South Korea, can strengthen and develop the quality of competitions from youth players to professionals. As mentioned in Managerial Implications, strengthening professional competitions in South Korea can bring valuable benefits in the perspective of global sport management by transferring homegrown players to foreign countries. Therefore, the present study can provide creative inspiration to coaches and sport administrators of Korean soccer industry, in terms of developing programs for their youth soccer players who are the future leaders of potential Korean soccer industry.

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Appendix

설문지

안녕하십니까?

본 설문은 유소년 축구선수들의 인재육성환경과 전반적인 축구 참여 만족도의 관계를 연구하기 위한 것입니다.

각 질문을 읽고 문항에 답하여 주시면 감사하겠습니다.

본 조사를 통해 수집된 여러분의 개인적 사항이나 응답 내용 등은 통계법 제8조 및 제9조의 규정에 의하여 무기명으로 처리되며, 본 연구 목적 외에는 절대 사용되지 않음을 약속드립니다.

설문에 참여해주셔서 대단히 감사합니다.

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Factor 1. Long-Term Development Focus (4 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	코치님은 내가 축구를 할 때, 내가 잘한 점과 못한 점을 잘 설명해줍니다.	①	②	③	④	⑤	⑥
2	코치님은 내가 축구선수가 되기 위해 도움이 되는 사람입니다.	①	②	③	④	⑤	⑥
3	코치님은 우리 팀이 이기는 것 보다, 나를 축구선수로 만들기 위해 더 신경을 써 주십니다.	①	②	③	④	⑤	⑥
4	지금 내가 학교에서 훈련하고 있는 환경은, 내가 미래에 축구선수가 될 수 있게 “적극적으로” 도와줍니다.	①	②	③	④	⑤	⑥

Factor 2. Quality Preparation (3 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	나는 내가 원하는 수준의 축구경기에 뛰고 있습니다.	①	②	③	④	⑤	⑥
2	나는 코치님에게 내가 훈련을 얼마나 해야 하고, 언제 쉬어야 하는지를 만족할 만큼 배워본 적이 있습니다.	①	②	③	④	⑤	⑥
3	축구를 할 때, 나는 팀원들과 코치님에게 부담감을 느낍니다.	①	②	③	④	⑤	⑥

Factor 3. Communication (3 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	나는 코치님과 같이 훈련 계획을 세우고 운동합니다.	①	②	③	④	⑤	⑥
2	코치님과 나는 축구를 잘하기 위해 대화를 자주 하는 편입니다.	①	②	③	④	⑤	⑥
3	코치님은 현재 내가 하고 있는 훈련들을 왜 해야 하는지를 잘 설명해 주십니다.	①	②	③	④	⑤	⑥

Factor 4. Understanding the Athlete (2 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	코치님은 축구 이외에는 나에게 관심이 있으십니다.	①	②	③	④	⑤	⑥
2	축구를 하면서 정신적으로 강해지는 방법에 대해 만족할 만큼 배워본 적이 있습니다	①	②	③	④	⑤	⑥

Factor 5. Support Network (3 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	코치님 이외에, 다른 전문가분들 (예: 축구 강사, 다른 팀에 있는 코치, 영양사, 물리치료사, 재활트레이너)이 내가 축구선수가 되는 것을 도와주고 있습니다.	①	②	③	④	⑤	⑥
2	내가 도움이 필요하면 위에 말한 전문가 분들을 언제든지 만날 수 있습니다.	①	②	③	④	⑤	⑥
3	미래에 축구선수가 되기 위해, 나는 지금 내가 원하는 훈련들을 하고 있습니다.	①	②	③	④	⑤	⑥

Factor 6. Challenging and Supportive Network (3 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	코치님은 지금 당장의 결과는 중요하지 않고, 미래가 더 중요하다고 말씀하십니다.	①	②	③	④	⑤	⑥
2	나는 내가 원하는 수준의 선수들과 운동할 기회가 있습니다.	①	②	③	④	⑤	⑥
3	나보다 더 경험이 많은 축구선수들 (예: 선배님들, 다른 팀의 선수들)의 도움을 만족할 만큼 받아본 적이 있습니다.	①	②	③	④	⑤	⑥

Factor 7. Long-Term Development Fundamentals (4 items)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	나는 축구 이외에 다른 운동을 즐길 수 있는 시간이 있습니다.	①	②	③	④	⑤	⑥
2	내가 축구선수가 되기 위해, 코치님은 나의 부모님과 대화를 많이 하고 있습니다.	①	②	③	④	⑤	⑥
3	나의 축구 성적 (예: 훈련 성적, 경기 성적)은 항상 코치님과 부모님께서 관찰하시고 계십니다.	①	②	③	④	⑤	⑥
4	내가 축구선수가 되기 위해, 필요한 결정은 내가 직접 하는 편입니다.	①	②	③	④	⑤	⑥

Grade (1 item)

	항목	학년		
		1학년	2학년	3학년
1	귀하의 학년은 몇 학년입니까?	1학년	2학년	3학년

Position (1 item)

	항목	포지션			
		공격수	미드필더	수비수	골키퍼
1	귀하는 현재 팀에서 어떤 포지션을 뛰고 있습니까?				

Satisfaction of Playing Soccer in South Korea (1 item)

	항목	전혀 만족하지 않는다				매우만족한다	
		①	②	③	④	⑤	⑥
1	나는 현재 내가 하고 있는 축구에 만족을 하고 있습니다.	①	②	③	④	⑤	⑥