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## **Coaching Online in Basketball**

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### **Abstract**

The sports fans like to talk about sports before the games during the games and after the games. Mostly the sports fans talk about the starting fives, in-game substitutions and the critics of the game performances and the game results. The fantasy sports give the opportunity to people to create and manage their roster. Fantasy sports games point coming from real game data. The fantasy game players have to select the players that can reach the best statistics of their actual games. In this study, the 2017-2018 Euroleague Fantasy Challenge Game's most selected 80 players performance index ratings from the Euroleague data are examined. For the statistical analysis, the IBM Spss Statistics 25 programme is used. The results show that 14 players in the PG-SG position were ranked first with an average of 14.36 performance index rating. Twenty players who played in the center position took the second place with 12.53 performance index rating while the 11 players who played in the PF position took the third place with 12.26 performance index rating.

**Keywords:** fantasy basketball, sports, fantasy sports

## Introduction

Fantasy sports games include both real and virtual life. The sports enthusiasts and fans can watch matches played in stadiums, in halls or on the television screen in real time.

Sports performance is highly complex and capable of generating vast quantities of data. This is the case for all sports, especially team games (O'Donoghue, 2015). Statistics on fantasy games are valuable, and statistics show the performances shown in real games. Fantasy games are not real, but player performances are coming from real games. The score of each sport and each fantasy game also varies according to the characteristics of the sport.

Fantasy sports described by Ruihley and Hardin “an interactive team management activity based on statistics accrued by athletes of real-life professional sports organizations and/or college athletics” (Billings and Ruihley, 2014). In fantasy games, the player who collects the most points at the end of each fantasy game is the champion of the week, champion of the month and champion of the season. Organizations award various prizes for the champions and winning teams. Fantasy games are a tool that people keep in touch with sports.

In parallel with the development of sports technology, it has spread to a wide audience and within this sector; Along with globalization, along with the process of professionalization, it transformed sporting activities from being a game to an economic functioning area. In this transformation, clubs evolved into one business, and fans and viewers evolved into a consumer (Samur, 2018). Today, fantasy games have become an industry where sports fans are showing great interest. Fantasy games played on the Internet can be played from anywhere in the world. The games that can be played for many sports on the internet based on real-time performances. The scores from the part of the games which reflect the performance of the players during the match through the statistics are reflected in these games. Despite the global growth of fantasy sports, there is a lack of available scientific research relating to fantasy basketball parameters.

Identification of players performance efficiency, there a lot of formulas been around.

Martínez, (2010), reviewed the basketball player rating systems of official competitions and fantasy leagues. In his study, some leagues use the same valuation systems for their fantasy games and some of use different valuation systems excluding the club competitions.

Muthu Alagappan (2012), at MIT Sloan Sports Analytics Conference, revealed that according to his analysis, NBA players could largely be grouped into 13 types (M. Shea and E.Baker.,

2013). These 13 positions; Offensive Ball-Handler, Defensive Ball-Handler, Combo BallHandler, Shooting Ball-Handler, Role-Playing Ball Handler, 3-Point Rebounder, Scoring Rebounder, Paint Protector, Scoring Paint Protector, Role Player, NBA 1st-Team, NBA 2ndTeam, One-of-a-Kind. For his TEDx Spokane talk (2013), he reduced that number to ten.

These ten positions are Inside Outside Scorers, Mid-range Big man, two-way All-Stars, Defensive Ball-handlers, Jump Shooting Ball-handlers, Scoring Rebounders, Paint Protectors, 3-Point Ball-handlers, 3-Point Specialists, Low-usage Ball-handlers.

The purpose of this study is to clarify the performance index rating of Euroleague players according to their player positions. Investigation of the performance index rating categorized by F8 & last eight teams, home & away teams, winning & losing teams.

## Materials and Methods

In this study, the most selected 80 players and played at least 15 games and 15 minutes from the 16 teams in the Euroleague fantasy challenge game. The player statistics that make up the performance index ratings have looked on the official Euroleague website ([www.euroleague.net](http://www.euroleague.net)), according to player positions. The study included nine different groupings according to player positions; pg, pg-sg, sg-sf, sf, sf-pf, pf, pf-c, c. The in-situ statistics, which constitute performance index ratings, from the players who played in which positions have searched.

### Statistical analysis

SPSS package (v.25) used for the statistical analyses of the current data. All the data expressed as means. Totally 80 players discriminated into nine groups according to their player positions. Finally, cluster analysis for data used to examine the differences between the performance index rating according to player positions.

### Fantasy Sports Games

A fantasy sports contest application may allow users to Setup unique user accounts, in which user Specific information Such as, for example, identification information, fantasy Sports contest participation information, user preference information, or any other Suitable information associated with the user, may be stored. The application may personalize fantasy Sports contest information and displays for the user. (Barber and Hughes, 2006)

Conventionally, the rules in a fantasy sports contest are set by a fantasy sports contest system provider or are set by a league commissioner who sets the rules under which a group of fantasy or rotisserie sports game users competes against each other. For example, for every goal scored in real-life by a member of the user's fantasy Soccer team, a conventional fantasy sports contest system might award five points to the user in the fantasy competition (Junkin and Barber, 2012).

The Euroleague Fantasy Challenge Game has been played in the same format for a long time until last season. In old format, the online coaches have to select ten players for their fantasy team squads: two point guards, four shooting guards or small forwards and four power forwards or centers. There are players on the bench if any player doesn't play in the actual game or can't participate in the game of any reason. The reasons would be coach decision, health problems or personal issues.

In the new format, there are eight players in the main squad to get fantasy points, and three players are on the bench if any player don't get any minutes or can't participate to the game the fantasy game replaced a bench player automatically for these players. Another new rule in the game is, captain player will get doubled of his actual points. There is also a vice-captain if the Captain player does not take any minutes in the game and Vice-Captain's Score will be doubled if the Captain does not play. The fantasy coaches have to select their Captains very carefully because the new Captain rule will affect the game forever. There are no rule changes for the winning team's players get a % 10 bonus of their actual game points and losers team's players to stay with their same actual game points. The Coaches allocated a maximum of three valid Trades per week rule stays the same for the new format.

### EuroLeague Fantasy Challenge scoring system:

Total Fantasy Points = (PTS + ASS + REB + BLK + STL + FLD + FT1M + FG2M + FG3M - TO - BLKA - FOULS - FT1A - FG2A - FG3A)' (+ 10% bonus if his EuroLeague team wins).

**Source:** <https://fantasychallenge.euroleague.net/#help/game-guidelines>

The descriptions of player index rating variables shown in Table 1.

**Abbreviations**

*PTS* Point, *ASS* Assist, *REB* Rebound, *BLK* Block, *STL* Steal, *FLD* Fouls drawn, *FT1M* Free throw made, *FG2M* Two-point field goal, *FG3M* Three-point field goal, *TO* Turnover, *BLKA* Block, *CM* Fouls committed, *FT1A* Free throw attempted, *FG2A* Two point attempted, *FG3A* Three-point attempted.

**Table 1.** Player Index Rating

Ab.	Descriptions	+, -
PTS	Points are scored when a player puts the ball through the basket.	+
ASS	An assist is a pass that leads directly to a made basket for a teammate.	+
REB	Gather in and gain control of a missed shot; a missed shot that is retrieved.	+
BLK	A block occurs when a defensive player deflects a shot attempt of an offensive player resulting in a missed shot.	+
STL	A steal occurs when a defensive player forces an offensive player to turn the ball over.	+
FLD	It is a violation of the rules regarding unlawful contact and/or unsportsmanlike behavior.	+
FT1M	A shot was taken from the freethrow line.	+
FG2M	A shot that goes through the basket from above.	+
FG3 M	A shot that goes through the basket from above. Field goals from 3 point line.	+
TO	A player is charged with a turnover if the team lose possession of the ball to the opposing team before a shot is attempted.	-
BLKA	A block occurs when a defensive player deflects a shot attempt of an offensive player.	-
CM	A personal foul is any violation of the rules of the game that involves personal contact with an opposing player.	-
FT1A	A shot that goes outside of the rim behind the freethrow line.	-
FG2A	A shot that goes outside of the rim inside the three-point line.	-
FG3A	A shot that goes outside of the rim behind the three-point line.	-

**NOTES:** Ab: Abbreviations, +: Plus, -: Minus

**Source:** <https://jr.nba.com/category/other/dictionary/>



### Designated Player Positions

Some players have been listed in two different positions due to their versatility, which makes the players more valuable in the game, as the players can be located in several spots of EuroLeague Fantasy Challenge team. For instance, a player listed as Shooting Guard and Small Forward can be used in four different spots in EuroLeague Fantasy Challenge line-up: Shooting Guard, Guard, Small Forward, and Forward. There are nine positions in the game. The designated player positions descriptions are shown in Table 2.

Source: <https://fantasychallenge.euroleague.net/#help/game-guidelines>

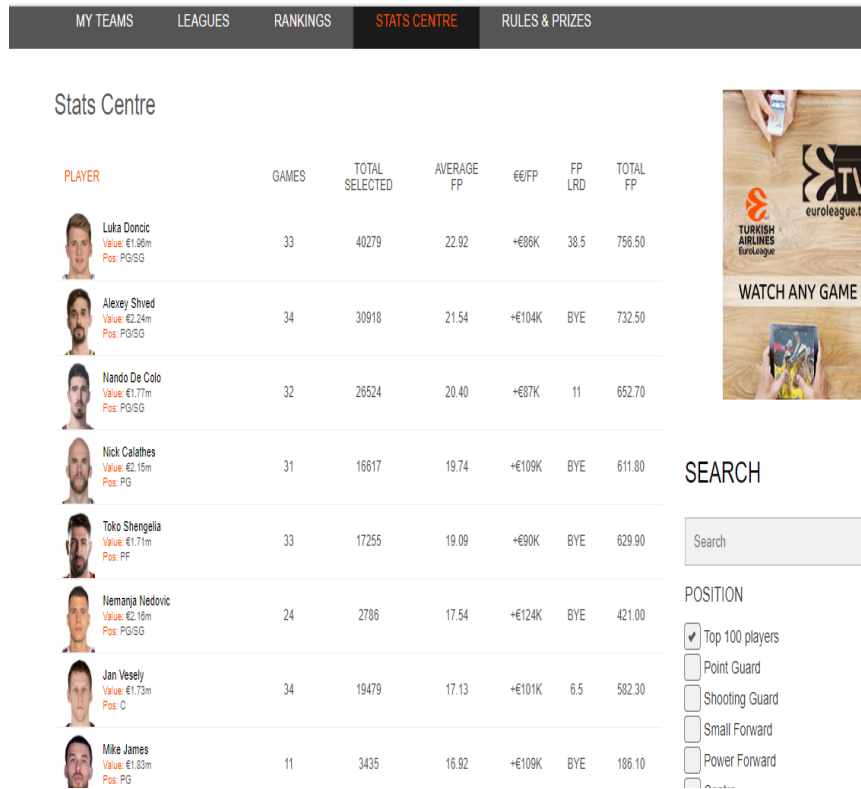


Figure 1. TOP 80 PLAYERS

Source: <https://fantasychallenge.euroleague.net/#stats-centre>



SEARCH

POSITION

- Top 100 players
- Point Guard
- Shooting Guard
- Small Forward
- Power Forward
- Center

**Table 2.** Player Positions

<b>The Player Positions</b>	<b>Descriptions</b>
The Point Guard (PG)	The point guard runs the offense and watches the backcourt. His role is so important to the team that he is an extension of the coach on the floor.
The Shooting Guard (SG)	The shooting guard is also referred to as the No. 2 guard, or off-guard. He is generally the better shooter of the two guards.
The Small Forward (SF)	The small forward is generally the most gifted player on the team. He should be a good scorer able to score from the wings, around the key, and under the boards.
The Power Forward (PF)	The power, or strong, forward does not receive much recognition; usually, he is known as the player doing the "dirty work" and is often taken for granted.
The Center (C)	The center, along with the point guard, is easily the most important player on the team, he is the tallest player on the floor.
The Point Guard (PG) & The Shooting Guard (SG)	Can play both two positions PG & SG
The Shooting Guard (SG) & The Small Forward (SF)	Can play both two positions SG & SF
The Small Forward (SF) & The Power Forward (PF)	Can play both two positions SF & PF
The Power Forward (PF) & The Center (C)	Can play both two positions PF & C

**Source:** <https://www.usab.com/youth/news/2012/08/defining-the-positions.aspx>

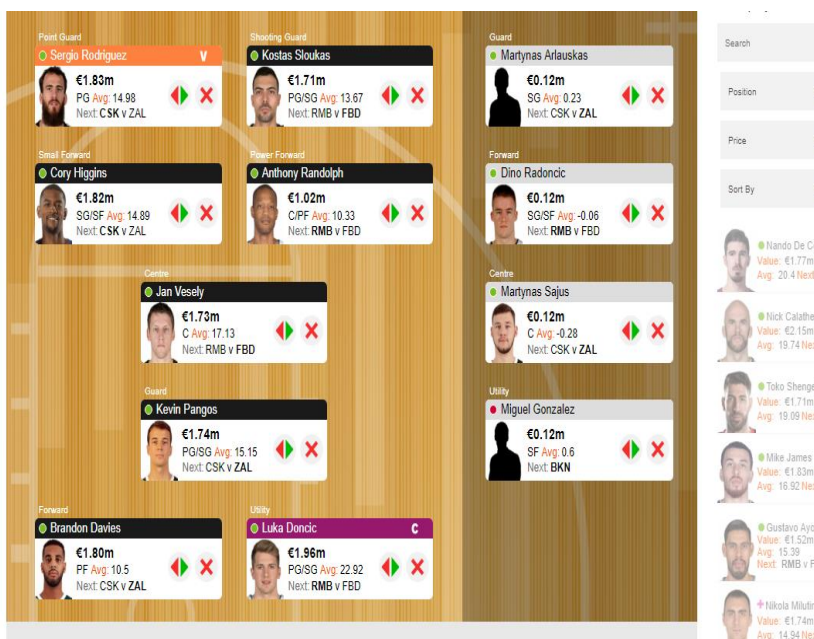
**Table 3.** The Most Selected 80 Players with Playing Positions

PG	PG/SG	SG	SG/SF	SF/PF	SF/PF
Nick Calathes	Luka Doncic	Andrew Goudelock	SG/SF	Dorell Wright	Milko Bjelica
Sergio Rodriguez	Alexey Shved	James Feldeine	Cory Higgins	Carlos Suarez	Anthony Randolph
Taylor Rochestie	Nando De Colo	Michael Roll	Will Clyburn		<b>C</b>
Thomas Heurtel	Nemanja Nedovic		Vladimir Micov	<b>PF</b>	Jan Vesely
Brad Wanamaker	Kevin Pangos	Andrew Goudelock	DeAndre Kane	Toko Shengelia	Arturas Gudaitis
Jayson Granger	Pierre Jackson	James Feldeine	Krunoslav Simon	Georgios Printezis	Bryant Dunston
Norris Cole	Erick Green	Michael Roll	Rudy Fernandez	Paulius Jankunas	James Augustine
Jordan Theodore	Kostas Sloukas		Adam Hanga	Anthony Gill	Nikola Milutinov
Facu Campazzo	Errick McCollum		<b>SF</b>	Augustine Rubit	Vladimir Stimac
Vasilije Micic	Vassilis Spanoulis		Kostas Papanikolaou	Trey Thompkins	Bojan Dubljevic
	Daniel Hackett		Edgaras Ulanovas	Felipe Reyes	Ante Tomic
			Luigi Datome	James Gist	Kevin Seraphin
			DeShaun Thomas	Malcolm Thomas	Kyle Hines
			James Nunnally	Brandon Davies	Tibor Pleiss
				Jeff Brooks	Othello Hunter
					Johannes Voigtman
				<b>PF/C</b>	Dejan Musli
				Chris Singleton	Vincent Poirier
				Nicolo Melli	Alex Tyus
				Jamel McLean	Walter Tavares
				Jonah Bolden	Mathias Lessort
				Aaron White	Kaleb Tarczewski
				Thomas Robinson	Art Parakhouski

**NOTES:** PG: Point Guard, PG/SG: Point Guard, Shooting guard, SG: Shooting guard, SG/ SF: Shooting guard, Small Forward, SF: Small Forward, SF/ PF: Small Forward, Power Forward, PF: Power Forward, PF: Power Forward, PF/C: Power Forward, Center

The most selected 80 players with playing positions list shown in Table 3.

### Processes of Play: From The First Day to Last Day



**Figure 2.** A Euroleague basketball fantasy team owner’s roster

A sample of the Euroleague basketball fantasy team roster has shown in Figure 2.

**Table 4.** The Selection of Euroleague Fantasy Challenge Positions

Position	Descriptions
Point guard	Must be selected from PG position
Shooting guard	Must be selected from PG/SG, SG, SG/SF, position
Small forward	Must be selected from SG/SF, SF, SF/PF
Power forward	Must be selected from SF/PF, PF, PF/C
Center	Must be selected from PF/C, C
Guard	Must be selected from PG, PG/SG, SG, SG/SF
Forward	Must be selected from SG/SF, SF, SF/PF, PF,
Utility	Can select from every position

In Euroleague fantasy challenge game there are eight positions for selection as shown in Table 4.

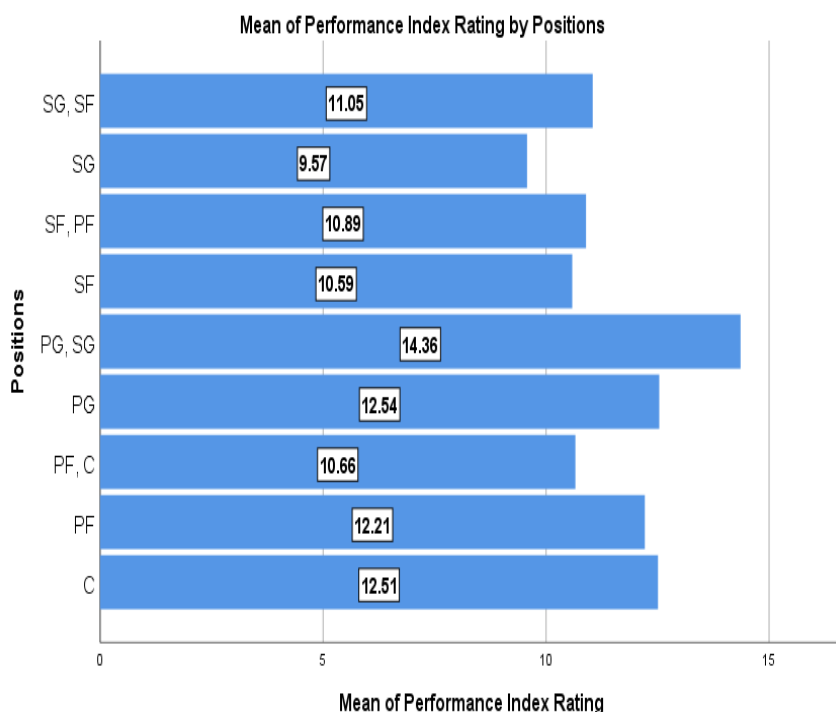
### Team Selection

- Must select a total of 12 Players before the commencement of Round One. If, register once the season is underway, the team will only start scoring from the next round after registered with 12 players.
- When selecting your team, you must select: 1 Point Guard, 1 Shooting Guard, 1 Small Forward, 1 Power Forward, 2 Centres, 2 Guards (Either a Point Guards or Shooting Guards), 2 Forwards (Either a Small Forwards or Power Forwards), 2 Utilities (can be any position) (this includes 4 Bench Players; 1 in each position)
- Starting lineup: PG, SG, SF, PF, C, UTL, Guard, Forward
- Bench: Guard, Forward, Centre, UTL
- Only starting eight will score points towards team total, while bench four will only score if a player in the matching position does not play.
- Need to select the Team within the initial €10,000,000 Salary Cap.
- If the team is not filled with 12 Players before the start of the season, the team will be completed using our intelligent Smart Auto-Fill feature.
- The player is selected as Captain (Captain will score double)
- The player is selected as Vice Captain (Vice Captain will act as an emergency if Captain does not play)

Source: <https://fantasychallenge.euroleague.net/#help/game-guidelines>

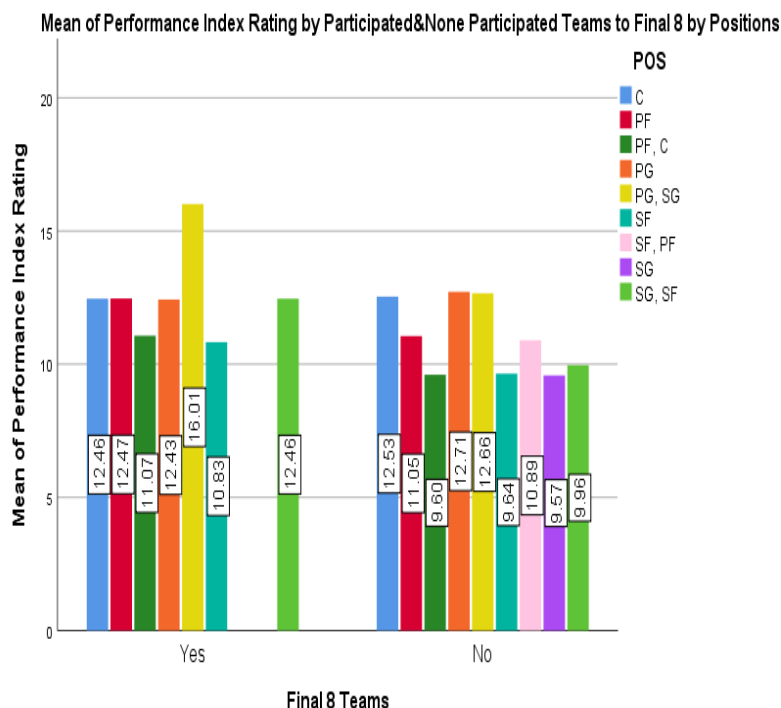
The team selection sample is shown in Figure 2. The positions for selections in Euroleague Fantasy Game shown in Table 4.

### Findings / Results



**Graphic 1.** Performance index rating averages of the most selected 80 players according to the player positions

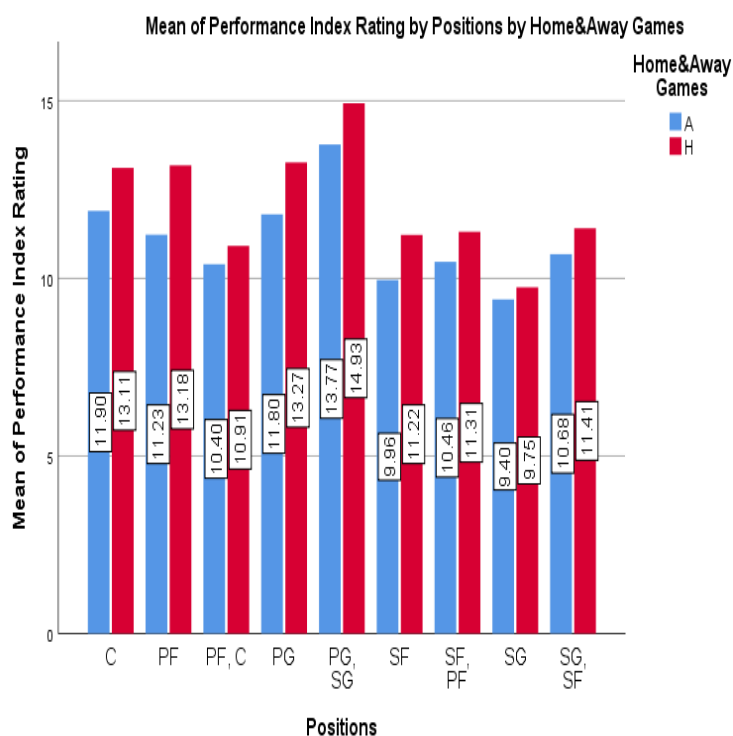
The performance index rating averages of the players according to the player positions shown in Graphic 1. The results show that 14 PG&SG players have the most performance index rating with an average of 14.36. 10 PG players are second in the list with an average of 12.54 performance index rating. 20 Center players are third in the list with an average of 12.51 performance index rating.



**Graphic 2.** Performance index rating averages of player positions according to F8 teams and last eight teams.

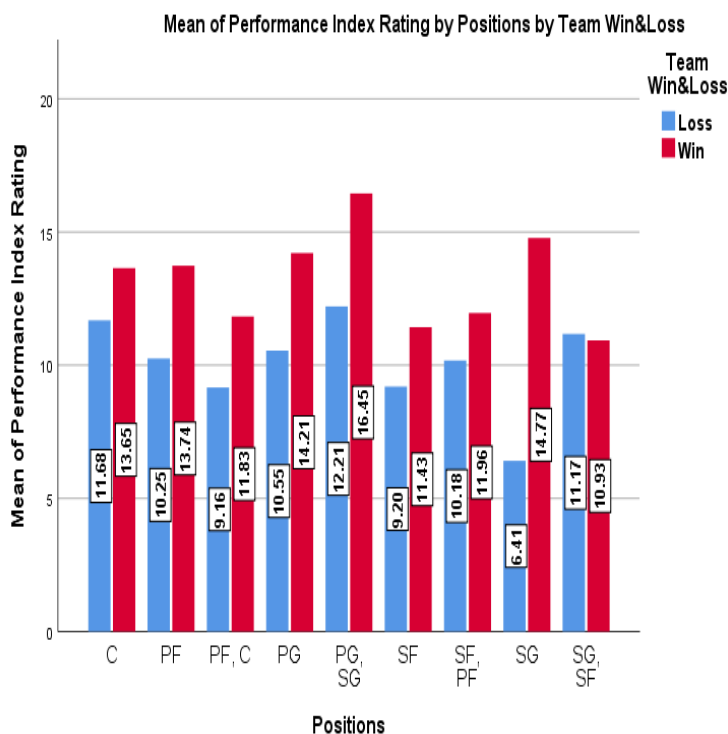
The cluster analysis of performance index rating according to F8 and last 8 eight teams’ players of the 2017-2018 Euroleague season shown in Graphic 2. The players on F8 teams played with an average of 12.53 performance index rating, while players on none participated F8 teams played with an average of 10.95 performance index rating. Players playing the pg&sg positions have the most performance index rating with an average of 16.01. The most significant difference is also between the pg&sg players in F8 teams and last eight teams with a 3.35 performance index rating. There is no SF&PF and SG players in the F8 teams in the list of most selected 80 players by Euroleague Fantasy Challenge players.





**Graphic 3.** Performance index rating averages of the home games and away games according to the player positions

The performance index rating averages of player positions according to home games and away games shown in Graphic 3. Home teams players have more performance index rating than away teams players with an average of 12.12. Away teams players have remained an average of 11.06 performance index rating. PG&SG players are first in the list of home games with an average of 14.93 performance index rating. PG&SG players are also first in the list of away games with an average of 13.77 performance index rating.



**Graphic 4.** Performance Index Rating averages according to player positions in teams win and loss matches

The performance index rating averages of player positions according to team wins and team losses are shown in Graphic 4. The players on the winning teams played with an average of 13.21 performance index rating and with 10% winning bonus points they reach 14.34 performance index rating. Losing teams’ players have an average of 10.09 performance index rating. PG&SG players have an average of 16.45 performance index rating in winning games. PG&SG players have an average of 12.21 performance index rating.

### Conclusions

The findings of the current study highlight the performance index rating of basketball players related to their player positions. It is suggested that the Euroleague Fantasy Challenge Coaches have to find the best players to perform each week games for their fantasy basketball teams.

Specifically, in today’s basketball game, there a lot of 1vs1 plays, the pace of the game is increased, and three-point shot attempts increased like never before. According to this information, the Euroleague Fantasy Challenge Coaches prefer to play with the players can drive to opponent’s basket and can shoot the basketball from long range. The means also gives information about how the PG-SG players affect the game in Euroleague Basketball and show the importance of playing two different positions and the disappearance of traditional playmakers.

## Conflict of Interest

The author has not declared any conflicts of interest.

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## **The Behaviour of Spare Time in Different Cultures - Romanies Sample**

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### **Abstract**

Romani people in Tekirdag well in Aydoğdu district which is the oldest settlement of the city. In this area, they usually live in shantytowns. Males engage in trade and some of them sell fruits, vegetables, fish in bazaars, some are musicians. Women are usually housewives. They do house Works and some of them do clean someone else's house for a living. This is a qualitative study which includes the Romani in Tekirdağ Süleymanpaşa County Aydoğdu District and the cultural identity term of Romani's spare time activities. There are total 15 participants as 10 males and 5 females in the study. Their demographic information was taken and then asked 10 questions with the Interviewing Method. In accordance with their answers, they cannot actually participate much to the spare time activities because of the financial impossibility and the plenitude of working hours. It appears that their only activity which is special for their cultures is weddings. If the Romani have regular jobs and higher education level, their contributions to the society will be big undoubtedly. In every branch of music, game and art, they make important progresses for humanity in national and global extent both through their recreative aspects and professional contributions

**Keywords:** Culture, Multiculturalism, Leisure, Romani

## Introduction

### Culture, Ethnicity and Multiculturalism

The concept of culture is handled as a phenomenon changing from writer to writer, society to society. As it is understood from this, it can differ from the perspectives of writers and sociological theories (Yanik, 2013:23). Culture is the situation that people get involved in external world to survive. During this process people produce special things and values in their regions. Culture includes each areas which people get involved in. In other words, it reaches from the life security about materials to social life levels and environmental conditions adapted to esthetics and values (Ultanır, 2003:296).

The biggest discussions about ethnicity are on individuals living in societies which include several ethnic groups. Therefore, considering that Soviet Union and Yugoslavia collapsed in 1990s, communities living in these areas and consisting different ethnic groups came to existence for their wish to rule themselves. In historical background concepts of ethnicity and ethnic predate than concept of nation. Modern communities tried to bring the different ethnic groups to national place however they failed. Thus, historical events set boundaries of certain nations. Yet other communities' boundaries have been shaped arbitrarily and have big consequences (Donald, 2003:6).

Members of an ethnic group can shape their own consciousness in a way of common origin and a shared common fate. Ethnicity refers to someone's traditions, customs, rituals and national, regional relations based on the social and historical origins (Yanik, 2013:31). Social systems can see the ethnic community as other ethnic communities outside the person or combine these communities. Someone's deploying herself/himself as depending on a group is not just psychological but also sociable. Hence, people's psychological manners show themselves objectively in expressed manners to other people. In this sense, Isajiw distinguish the internal factors of ethnic identity and expressed features of it (Isajiw, 1993:407-427).

Multiculturalism is a whole of experience that political attitudes, intellectual discussion and practice as part of an idea for being known of different cultures by reshaping the democratic communities' institutions and allowing for people to develop and transfer their differences.

According to this definition, multiculturalism is not a feature, it is an ideal or political propaganda. When it shows up first cultural differences were seen as an innovation unique to democratic communities (Doytcheva, 2016:24-25).

Multiculturalism is about being aware of the possessions as a society and knowing the values which different culture factors and different cultural communities, minorities, disadvantaged groups and individuals having wishes beyond normal care about. Not only that, it also emphasizes how "different" people's opinions and lives are repressed, silenced and crushed under the culture special to majority. It undertakes to help against the difficulties in voices of different opinions, lives, cultural elements, and people excluded from majorities culture. This argument has become the target area of extreme right wingers and conservative groups. During the process that cultural conflicts began after 1960s the concept of multiculturalism shows itself in every part of life like art, education and limits of freedom of speech (Dines&Humez, 2011:3). Multiculturalism has achieved to get into the curriculum after 1980s and this has been indicated as success with regard to be known of people or people groups are diversity. The concepts of multiculturalism which rapidly began to rise from 1980s through the first years of 1990s focus on the ethnic issues, migration and religious minorities( Latin Americans and Natives living in the United States, Aboriginal Australian and Maori, Muslim minorities living in the West, Basque, Catalans, Welsh and Quebec citizens etc.) Today,

common problems and demand for right related the concepts of multiculturalism has changed (Song, 2017). This concept is an issue that interlock with differences resultant not from personal tendencies but culture. In a nutshell it is the society which hosts more than one cultural groups in it.

If a person is willing to understand the concept of multiculturalism in America, he/she needs to search the history of identity and cultural structure of this country. In 20th century two patterns are developed to make various groups live together. Both patterns intend to experience an integration process in some kind of a melting pot that individuals abandon their identities resultant from different culture and structures. In this melting pot pattern, groups do not abandon their identities and voluntary ghettos happened. Second pattern called as salad plate are established on that groups live together and not meld. However, it is possible to say that this pattern has also some problems.

Muslim population are among the groups that migrated to America. There are 3 basic problems about the Muslims in America. Like other communities, the definition of socialization is broaden and Muslim population is a part of this process. There is a double place attachment or loyalty problem for Muslims. Serious problems about post-11 September terrorist incidents also came to exist.

Today, observing the classic Islam civilization and their cities may help refer to the generated identity structure and come out some problems easily (Kalin, 2009:350-357).

According to Parekh, multicultural societies had so much difficulty in their history. Therefore, he mentions that people need to constitute a common belonging while concerning about the cultural differences and to protect the cultural identities by not harming their properties of citizenship (Sarı, 2003:170-171).

## **THE ROMANI**

### **Origin of the Romani**

In the end of the researches on the Romani, it is put forward that their origin is India. How did experts come to this conclusion? Well, the language comparisons on the Romani for more than 200 years have shown their language is hindi-based (Kenrick, 2006:46). Today, by means of ethnological, anthropological and physiological researches, it is articulated tangibly that the Romani are of Indian origin. Besides they are called as hindu with reference to their language structure and typologic features, there is also an anthropological idea that they are Pre-Aryan locals of India. Their locations between the North India and Iran, migratory routes and kinship with similar groups of today's Romani can show incongruity. They are intervened with outlander factors during the long migration. Most of the researchers who are surveying the migration of the Romani from India have accepted the fact that the migration has occurred through Iran, Armenia, Anatolian, Greece, and south Slovakia region (Arayıcı, 2008:46).

Several studies used the searches of English linguistic scientist Sampson about the migratory routes, ever so they are contradictive. Considering the map formed with language evidences, the Romani were separated to 3 main groups at the end of 10th and beginning of 11th centuries. One of these groups "Lom" settled down Georgia and Armenia by moving along the north. Some studies claim that members of this group have reached to the Balkans, Romania and inner Europe. Second group "Dom" settled down Palestine and Syria at certain intervals. Certain groups have also reached to the Spain by moving along Egypt and



North Africa. Third and the biggest group ‘‘Rom’’ have gone to the Europe and Balkans from their way of Anatolia (Marushiakova, 2001:12).

## **HISTORY OF THE ROMANI IN TURKEY**

### **Romani’s Arrival in Anatolia**

Dom leaving from India settled down the Middle East and used a language originated from India. Members of Lom moved to Armenia. Some of them spent their life with permanent settlement. Rest group Rom migrated to Europe and they were called as European Romani. When examining the relationship of Romani and Turkish society, it dates back to old times (Kenrick, 2006:20). Suleyman the Magnificent prepared a law for Romani to live in Rumelia (Marushiakova, 2002:2). In Ottoman period, the big romani group which was dwelling in Thrace Region was in military forces and state called ‘‘Gypsy Sanjak’’ (Gökbilgin, 1977:423).

The documents of Ottoman Empire stated the Romani population as part of business, age and marital status to pay tax regularly. The best occupations of the Romani in the Empire are forging and musicianship. Other occupations are boating, swordsman, horseshoeing, jewellery, piscary, groomer, shoe-making, siever and butchery (Altınöz, 2007:46). The Romani in the Ottoman Empire could keep their life styles, socio-cultural features and traditional jobs better than the Romani living in Medieval Europe (Marushiakova, 2006).

They played a big role in social life, also contributed robbery, murder, prostitute in 16th century Ottoman Empire. Because of their negative attitudes the Sovereign penalized and enacted to banish them from Istanbul. Contrary to this the Romani became significant about iron and forging. They manufactured the nail necessary for public housing and shipbuilding. Besides Mehmet the Conquerer did not extort and rewarded the forgers (Altınöz, 1995:25-26).

### **The Romani in Turkey**

When we look at the geographical distribution of the Romani in Turkey, Istanbul is placed on the top. Karagumruk, Balat, Sulukule, Kasimpasa, Kucukbakkalkoy, Uskudar-Selamsiz are some of the districts of Istanbul which they are living. Edirne, Kırklareli and Tekirdag are the ones in Thrace. Then it comes Adapazarı and Bursa. Besides they live nomadically in Anatolia except the cities like Denizli, Zonguldak, Usak, Konya, Antalya, Egridir, Burdur, Hakkari, Mardin, Siirt, Van and Nigde. They still live as tribes and inhabitants do not get on with migrant settlers. For instance the Romani named Mitrip never marry Karaici. The Romani’s occupations were fortune telling, basketry, tinman, musicianship, siever, forging, flowering, horse breeding, unauthorized hunting (Şener, 2006:232-233).

There are several subgroups (tinman, basketry, peddler, bath attendant, cartwright, hamal etc.) between Turkey Romani and European Romani that share language, economic and cultural features with Turkey Romani. The musicians are the elite class in social system among the Romani. Most of them are Sunni Muslims, however there are lots of immigrant or settled Alevi Romani living in the suburbs of Istanbul and east of the country. They usually dwell in certain neighborhoods. They are also exposed to discrimination in social aspects and separated from country-wide. Therefore, they are organized by 2 federations and more than 40 associations.

Dom is a continuation of Dom Romani in Middle East. If the references in records of Armenian historians are accepted as truth, they have come to southeast of Turkey’s land (Antakya, Mardin, Diyarbakır) at the beginnings of 11th century. In today’s Turkey, they live

in east and south parts of the country and earn their living by playing drum and zurna. They have protected their own language Domari, yet they can speak Zaza language, Kurmanji (Northern Kurdish) and Turkish. They prefer to speak Domari between each other. Although they are familiar to Kurd population culturally, Kurds discriminated against the Romani people. There are documented evidences supporting that Romani were exposed to physical violence and murders by Kurds. Security forces in region were also doing the same discrimination. Most of the Dom are close to Sufi Islam but ones living around the Dogubayazit (Agri) are Yezidi. There is about 500.000 population and it needs to be confirmed by following surveys. Most are poor and nomad.

Lom's origin is not clear enough. However, it is a good chance that they are the group leaving from Romani and staying at the east of Anatolia instead of going to the west in 11th century. Lom population descend from people who are forced to migrate to Turkey during the ethnic cleansing done by Russians after the conquest of Caucasus in 1870s. Today, they are living as small groups in Black Sea region and northeast and called "Posa" which is the term of despising. They are settled and do agriculture. Some of them have jobs but they hide their ethnic identities just like most dignitary Romani in Turkey. While many do not use their language, very few people use their native language Lomavren and people under 60 years barely speak this language fluently (Seeman, 2006).

### **Social Life of the Romani**

Romani keep their life styles both as settled and nomad. They always changed place historically and had real bond with each other. Romani live their cultural values in traditional way.

Lemon made several investigation on Romani's society structure and separated this structure to 3 groups: "Serha" a family structure holding grandparents, "Asiret (tribe)" consisting of relatives and 100 drags at times, "Natia" referring to bigger communities. Romani give particular importance to the concept of "family". According to the Romani, kindredness is the most important thing. Marriages are also in their own structure.

Within the 3 main groups mentioned above marriages refer to "identity protection." Like marriage, marriage ceremony has also an important place. Although not yet essential of religious or civil ceremony, the important one is traditional Romani ceremony. An old woman controls the bride's virginity and announce the result to everyone within this ceremony (Asseo, 2007:118).

In assessment related to religious life of the Romani, the biggest criticism raised against them is that they do not belong to a religion or religious ritual. They usually accept the religion of their hometown and adapt to their life-style (Arayıcı, 2008: 39).

In Romani societies, while women often maintain their life as housewives men are working which lasts 9-12 hours average per day. Women make use of their spare time by seeing their friends, caring the children and husband or visiting the relatives. Men drink alcohol, travel, care for their wife and children in their spare times. Very few of them go to the coffeehouses. (Göker ve Karaçar, 2015:14).

### **Method**

The aim of this research is to investigate the individual's way of recreation in terms of cultural identity and ethnicity. The method is interviewing in qualitative research data analysis. While Tekirdag - Suleymanpasa district forms the population of the research,

Aydogdu Neighborhood, Nergis Street forms the sample. In this research, there are face to face meetings with 15 random Romani in Nergis Street. These meetings were recorded by phone. Each participant are informed about spare time and data was analyzed with content analysis method. The participants are coded from K1 to K15.

## Findings

1. Table Demographic Information of Romani Participants

Participant	Age	Gender	Educational Background	Occupation	Level of Income
P1	19	Male	Secondary School	Unemployed	Low
P2	29	Male	Primary School	Hawker	Low
P3	45	Female	Primary School	Housewife	Low
P4	39	Female	Uneducated	Housewife	Low
P5	53	Female	Primary School	Housewife	Low
P6	29	Male	Primary School	Self-employment	Low
P7	55	Male	Primary School	Self-employment	Low
P8	39	Female	Uneducated	Charlady	Low
P9	36	Female	Primary School	Housewife	Good
P10	41	Male	Uneducated	Fisherman	Low
P11	42	Male	Primary School	Janitor	Low
P12	19	Male	Secondary School	Self-employment	Low
P13	40	Male	Primary School	Musician	Average
P14	40	Male	Secondary School	Seller of dried nuts and fruits	Well
15	35	Male	Primary School	Sales Assistant	Low

Individuals are coded and their age, gender, educational background, occupation and economic conditions are indicated in Table1.

**Table 2.** Distribution of Participants’ Age, Gender, Educational Background, Economic Conditions

Personal Information		f	%	F
Gender	Male	10	66.6	15
	Female	5	33.4	
Age Groups	18-28	2	13.3	15
	29-39	6	40.0	
	40-50	5	33.4	
	51+	2	13.3	
Educational Background	Uneducated	3	20.0	15
	Primary School	9	60.0	
	Secondary School	3	20.0	
Economic Condition	Low	12	80.0	15
	Average	1	6.6	
	Well	2	13.4	

Participants’ genders, age groups, educational backgrounds and economic conditions are indicated in Table2.

**Table3.** Main Themes and Codes

Themes	Codes	Participants
Using of spare time for General Communal Living	Pattern	P3, P4, P8
	Watching television	P7, P9, P10
	Shopping	P2, P3, P4, P12
	Coffeehouse	P2, P11, P12, P13
	Traveling	P1, P5, P11, P12
	Recreation with Family and Friends	P1, P2, P3, P5, P8, P9, P13, P14, P15
Recreation for Romani Society	Romani Wedding Ceremony	P1, P2, P3, P7, P9, P11, P13, P15

In Table3, it is indicated that how the Romani people participated in the survey make use of their spare time through 2 main themes.

Considering the demographical information in Table 1 and 2, 5 female and 10 male are participated in this survey. Most of the participants are primary school graduate while there are uneducated people and secondary school graduates. Male participants are usually hawker and female participants are housewives. Majority of them has low income as there are barely people who have average or high income.

### **How much time do you spare for your work in a day?**

The results of the interviews with the Romani people show that male participants' working hours are not certain because they are usually self-employed persons. This working hours change between 8-15 hours.

Female participants are housewives in general, yet the participant named C8 indicates that she does cleaning by profession.

### **How long do you sleep?**

While most of the male participants sleep 5-6 hours per a day, female participants indicate their sleep routine is not definite but C9 named participant specify it as 8 hours.

### **How do you value your spare time?**

In the direction of the answers it is concluded that the Romani participants enjoy knitting, going to coffeehouses, shopping, travelling, spending time with family and friends, joining the wedding ceremonies.

Male participants usually go to the coffeehouses (P2, P11, P12, P13) while female participants spend their time with their family at home and knitting. (P3, P4, P8)

### **Do you attend to the activities of your own community, group or ethnicity?**

Romani people states they attend the wedding ceremonies as their society habits and customs. (P1, P2, P3, P7, P9, P11, P13, P15) One of the participant named P8 is scared of any fighting, therefore this participant do not attend the ceremonies. All of them think there are no activities representing their society customs except the weddings.

### **Do you believe your spare time is sufficient?**

Male participants indicates their spare time is insufficient while female participants think the exact opposite.

### **Do you allocate money for your spare time activities?**

Majority indicates they do not allocate money for their spare time activities whereas P3 and P12 named participants allocate money. P13 and P11 express they sometimes allocate money if they have.

### **Do you think your spare time activities reflect your own culture?**

Some of the Romani people who are interviewed think that these activities reflect their culture while some of them think the opposite.

### **Do you think spare time activities refresh, entertain and please you decently?**

Many of the Romani people states the spare times activities refresh, entertain and please them. However, people (P6, P7, P10, P13) who think their spare time is not sufficient states the spare time activities do not refresh and entertain them.

## Conclusion and Suggestions

In the light of information obtained after the research and interviews;

The interview are performed with 10 male and 5 female participants. Most of the participants are primary school graduates. While the male participants are usually self-employed, female participants are usually housewives. Because the male participants do not have regular jobs the weather conditions and job status can affect their working. A participant say that the Romani people can work for 30-40 Turkish liras per a day if there is a day-long job, otherwise they won't have even an olive to eat (Personal interview, P8) Besides they state their income status is not well, this explanation makes their status more understandable. t

During a personal interview, the participant indicate the Romani people have different parts between each other. For example, one of them spend time for entertainment, another one is artisan and this part has spare time when they do not work. As a result of the interviews male participants have one-day works and don't have much spare time. This result confirms the Romani's words.

The participant males usually work for ill-pay to support his family. Female participants do house works and take care of children. Because the male participants work between 8-15 hours, they sleep less than females.

They usually socialize with their friends at the coffeehouses or spend time with their families at home. Female participants spend most of their time at home with their family but sometimes they go to shopping or seaside.

Most of the participants state the wedding ceremony is the only thing reflecting their culture while rest do not agree with this opinion. According to the participants there is no other activity but wedding ceremony reflecting their culture.

The research establish the male participants do not have much spare time due to their working hours, however, females have much more spare time because they are housewives. Indeed, their financial situation is not enough to make spare time activities. Male participants work above average so they do not take a rest decently.

As a result, the participants who are Romani people and dwelling in Aydogdu Neighborhood in Tekirdag state that they enjoy attending the wedding ceremonies reflecting their culture and this attendance please them a lot. Besides the Romani get pleasure with the activities like games, dance and music which are included in their culture. Participants could not attend the spare time activities enough due to their low incomes. Therefore, their artistry has become blunt in time. in their research on "Lom" at Alibey street in Cankiri, Goker and Karacar (2015) also determined that the participants enjoy attending the wedding ceremonies reflecting their culture and the reason they could not make spare time activities much is financial impossibility. The similarity between these 2 study reveal the truth the Romani people living in Anatolia and Thrace region show similarities.

If the Romani have regular jobs and higher education level, their contributions to the society will be big undoubtedly. In every branch of music, game and art, they make important progresses for humanity in national and global extent both through their recreative aspects and professional contributions.



## Conflict of Interest

The authors have not declared any conflicts of interest.

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## **Examination of Reaction Times of Athletes of Kyrgyz National Team during Preparation Period for 2016 Summer Olympic Games<sup>1</sup>**

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### **Abstract**

This research has been carried out in order to determine the reaction levels of Kyrgyzstan national team athletes during the preparation period before 2016 summer Olympic Games. 9 Greco-Roman style wrestlers ( $24 \pm 4.5$ ), 10 freestyle wrestlers ( $22,10 \pm 3,21$ ), 8 judoists ( $23,6 \pm 1.89$ ), 8 male athletes ( $22,29 \pm 2.87$ ) and 3 female athletes ( $21.67 \pm 2.08$ ), totally 35 male and 3 female national athletes have been included to the study. The reaction times of the athletes against sound and light have been determined by the Newtest 1000 brand multi-choice reaction time scale. Statistical evaluation of the study has been carried out by SPSS 21.0 computer package program and "One Way ANOVA" test has been used to determine the difference between the groups. The differences on  $P < 0.05$  has been considered significant. When the findings were examined, Greco-Roman style wrestling, freestyle wrestling and judoists' reaction times reflected statistically similar results ( $p > 0,05$ ). Greco-Roman style wrestlers' reaction times have been found significantly higher than male and female athletes ( $p < 0,05$ ). Freestyle wrestlers, judoists, male and female athletes scores haven't statistically reflected difference ( $p > 0,05$ ). No statistically significant difference was found among the left hand reaction times of the branches ( $p > 0,05$ ). When the obtained results are examined, it has been observed that the right hand reaction times of the athletics are better than the wrestling and judo which are the branches of the fight sports.

**Keywords:** Reaction Time, Sports, Kyrgyzstan

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<sup>1</sup> This study was presented orally at the 6th International Conference on Science Culture and Sport 2018.

## Introduction

The reaction time is defined as the unit of time elapsed between the presentation of one possible stimulus and the beginning of the person's response voluntarily given to this stimulus (Angell and Moore, 2000).

Reaction time is an interval of time between the application of a stimulus and the beginning of an appropriate voluntary response by the subject (Karakuş et al., 1996; Terzioğlu, 1974). For our perceptions, in enabling athletes to act and react earlier than their opponents in sports the shortness of reaction time is important, especially in terms of stimulus. In addition, it has been stated that, the importance of reaction time may differ from one branch to another (Karakul, 1996).

In sport performances, reaction and action times are known as one of the important parameters of the speed, which is considered to be one of those motoric characteristics. (Karakuş et al., 1996). For this reason, the role of reaction time in Sport is becoming much more important. It was remarked that, athletes with short reaction times were more successful among athletes with the same conditional characteristics and technical capacities (Açıkada, 1990). Reaction time is a decisive criterion in many sports branches and along with many year researches, the shortening of the reaction time has been gained and become compulsory (Catelli, 1990).

It has been affirmed that the Reaction time is an amount of time period during which sudden and unplanned signal is presented and response to this signal is given, and that the stimuli can be auditory, visual and tactile (Eniseler, 1995) It has been confirmed that, the reaction time is considered to be one of the determinants of performance in modern sport and is closely related to the possession of quick decision making skills of athletes who are under the pressure of time and rival (İmamoğlu and Kılıçgil, 2007).

Reaction time is important in all sports branches. Researchers reported that with the help of physical trainings reaction times can be shortened (Angell and Moore, 2000; Biçer and Aysan, 2008; Çolakoğlu et al., 1993). Athletes with fast reaction times may have more advantages in competitions than their opponents, as the reaction time is one of the criteria used to determine the competition winner.

## Materials and Methods

In this study, the reaction times of athletes from 4 different branches of National team of Kyrgyzstan during the preparatory period before 2016 Summer Olympic Games were examined. A total of 38 athletes included in the preparations for 2016 summer Olympic games in the national team of Kyrgyzstan from the branches of Greco-Roman Wrestling (9), Free style Wrestling (10), judo (8), male athleticism (8) and female athleticism (3) were involved in the research. The data of the research were collected under the Scientific Research Project.

### Height and Body Weight Measurement

The subjects have been weighed in up to 20-gramm sensitive weighbridge with bare feet and shorts only. Length measurements were made with the Holtain slide callipers while the subjects were standing in upright position having the callipers that slide along the scale adjusted so that they can touch the heads and read with an accuracy of 1 mm in length.

## Reaction Time Measurement

In the study, the visual reaction times of the subjects were determined using a Newtest 1000 instrument. In the reaction time measurements, it was taken into consideration that the place where the measurement is made should be noiseless and light environment. One trial against light stimuli from each subject and the results of 3 measurements was recorded. The mean of the last 3 tests was determined as the reaction time, accepting the first trial as a practice (Tamer, 1995). The measurement results of the subjects were recorded in milliseconds. The visual reaction of the athletes has been measured having index finger of the right and left hands right next to the button in joint position.

## Statistical Evaluation

Statistical evaluation of the findings has been performed with SPSS 21.0 computer package program, and the arithmetic mean and standard deviation of all parameters were calculated. The "Single Sample Kolmogorov-Smirnov" test has been used to determine the homogeneity of the data. To determine the difference between the groups the "One Way ANOVA" test has been applied. Differences in  $P < 0.05$  were considered significant.

## Ethical Approval

Detailed information about the study was given to the subjects before the measurements and the voluntary confirmation form was signed. The study protocol was approved by the ethics committee of Kyrgyzstan State Sports Academy no: 2015/175.

## Results

The demographic information of sportsmen from four different branches included in the researcher given in table 1.

**Table 1.** Demographic Characteristics of Kyrgyz National Athletes

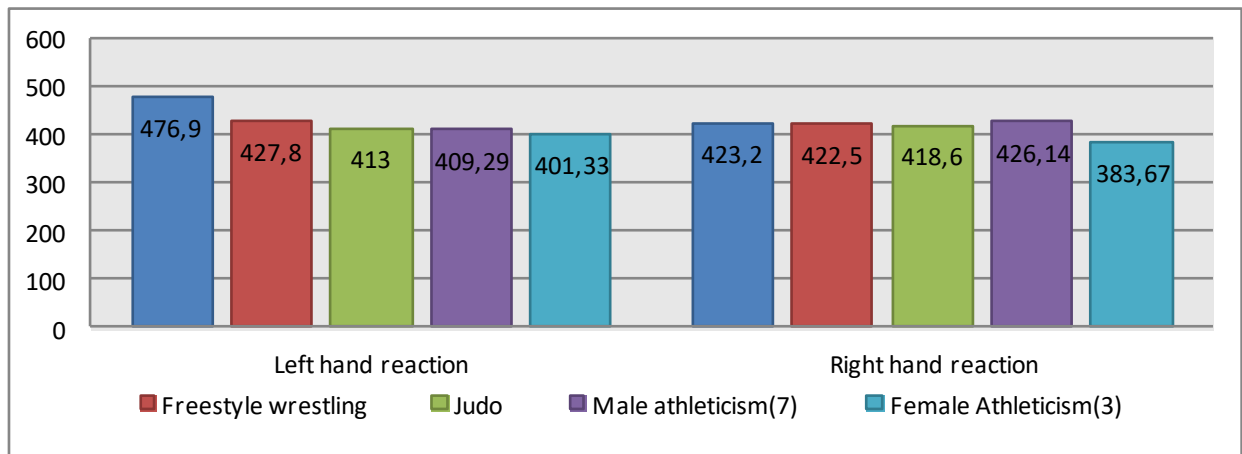
Branches	n	Age (Mean±sd)	Body length (Mean.±sd)	Body weight (Mean.±sd)
Greco-Roman wrestling	9(M)	24,00±4,50	169,60±9,44	72,02±11,80
Freestyle wrestling	10(M)	22,10±3,21	164,31±4,75	64,75±6,34
Judo	8(M)	23,6±1,89	175,7±36,87	86,2±20,27
Male athleticism	8(M)	22,29±2,87	177,88±6,31	64,98±2,72
Female athleticism	3(F)	21,67±2,08	171,66±2,51	56,5±8,58

**Table 2.** Right and left hand reaction measurements of National athletes of Kyrgyzstan (msn)

Branches	n	Right hand reaction (Mean ± sd)	Left hand reaction (Mean. ± sd)
Greco-Roman wrestling	9(M)	476,9±53,57 <sup>a</sup>	423,2±68,94 <sup>-</sup>
Freestyle wrestling	10(M)	427,8±51,82 <sup>ab</sup>	422,5±75,22 <sup>-</sup>
Judo	8(M)	413±88,14 <sup>ab</sup>	418,6±108,96 <sup>-</sup>
Male athleticism	8(M)	409,29±63,6 <sup>b</sup>	426,14±72,51 <sup>-</sup>
Female athleticism	3(F)	401,33±29,6 <sup>b</sup>	383,67±39,8 <sup>-</sup>

*-: P > 0.05 differences between the groups are insignificant, ab: P < 0,05 explains the differences between groups.*

When the findings given in Table 2 were examined, Greco-Roman, freestyle wrestlers and judokas' reaction times did not show statistically similar results ( $p > 0.05$ ). Reaction times of Greco-Roman style wrestlers were significantly higher than male and female athletes ( $p < 0.05$ ). Scores of Freestyle wrestlers, judokas, male and female athletes did not reflect any statistical difference ( $p > 0.05$ ). No statistically significant difference was found between the left hand reaction times of the branches ( $p > 0.05$ ). As a result, when the obtained data were analyzed numerically, it was observed that athletic athletes' average reaction times reflected better scores from the fighting athletes than wrestling and judo branch athletes.



**Graph 1.** Graphical representation of right and left hand reactions of athletes

## Discussion and Conclusion

Reaction time is a determining factor of performance in most sports. Measuring the reaction time is quite complicated, despite its simple definition. Relevant sense organs, stimulus intensity and circumstance are some of the factors that affect the reaction time. (Guyton and Hall, 2006).

In this study, right and left hand reaction times of athletes of National team of Kyrgyzstan measured during the preparatory period before 2016 Summer Olympic Games have been examined. The results indicated that, left hand reaction in Greco-Roman wrestlers were measured as  $423.2 \pm 68.94$  ms while the right hand reaction was  $476.9 \pm 53.57$  ms. In freestyle wrestlers, right hand reaction was measured as  $427.8 \pm 51.82$  ms and left hand reaction  $422.5 \pm 75.22$  ms. Right and left hand reactions in Judokas were measured as  $413 \pm 88,14$  and  $418,6 \pm 108,96$  ms. In male athletes the right hand reaction was  $401,33 \pm 9,6$  ms, the left hand reaction was  $426,14 \pm 72,51$  ms and the right and left hand reactions in female athletes were  $401,33 \pm 9,6$  and  $383,67 \pm 39,8$  ms. (table 2).

As it can be seen, averages of right hand reaction time of athletic athletes has reflected better scores than sportsmen of combat sports - wrestling and judo. Gürsoy et al. (2017) investigated the reaction times of 89 male and 30 female active athletes from different branches. As a result of their research, they noted that male athletes showed better results having  $379,83 \pm 30,45$  ms right hand and  $376,13 \pm 32,70$  ms left hand reaction time than those female athletes whose right hand reaction was  $405,97 \pm 38,57$  ms while left hand reaction reached  $390,10 \pm 39,54$  ms. In their researches of analysis of reaction time of 48 athletes from different branches, Pular et al. (2017) found the dominant hand reaction time of 12 athletes from athleticism to be  $283,16 \pm 35,94$  and average reaction time of two hands as  $320,71 \pm 82,23$  ms.



Cicioğlu et al (2006) determined the visual reaction times of the Greco-Roman National Wrestlers as  $0.188 \pm 0.07$  ms. In his survey, conducted on 176 men and 129 women athletes from different branches, Akarsu (2004) reported that the right hand reaction time of male athletes was  $407.11 \pm 92.55$  ms and the left hand reaction time was  $401.61 \pm 77.69$  ms. At the same time, girls had right hand reaction time equal to  $431.03 \pm 88.76$  ms, and left hand reaction time to  $437.62 \pm 84.39$  ms. Dominant hand reaction time was  $338.16 \pm 61.59$  ms in males and  $354.01 \pm 62.55$  ms in females. As it is seen above, there are some researches where lower reaction time results are reported in literatures as well as those that support our results. It is believed that, it may have been caused by the differences in distance between specified finger and button before command during the data acquisition methods. In addition, the application of different model devices in the reaction measurements has been explained as another reason for the inconsistency in the reaction times reported in our investigations.

As a result, it is assumed that different sport activities have an important effect on the development of the motoric characteristics and reaction time in the human body in terms of physiology and that the activity type influences mentioned characteristics at different levels.

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### Conflict of Interest

The authors have not declared any conflicts of interest.

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## **Phenomenology of Communication Behavior of Football Supporters in Giving Support in Brebes Regency, Central Java, Indonesia**

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### **Abstract**

This research aims to study the phenomenology of communication behavior of football supporters in giving support in Brebes Regency, Central Java, Indonesia. This research was also conducted using qualitative approach with phenomenology and ethnography design with critical ethnography type research. The sources of data were collected by research informants using Purposive Sampling and Snowball technique. Data collection technique was conducted by observation, interview, and documental study, data analysis was conducted inductively using interactive cycle by Miles and Huberman. The results show that the phenomenology of communication behavior of football supporters was influenced by identity, attributes, and action, as the forms of delivering messages with language and certain symbols. The messages proposed to football team which they supported and parties of their favourite football team. A verbal and non-verbal support for their favourite team that was given when it had a match in or outside the field was their way to communicate. Their messages were expected to be delivered and received by the team or other parties, so that there was a feedback for the messages.

**Keywords:** Phenomenology, Behavior, Communication, Football Supporters

## Introduction

Football is one of sports which are favorable and popular for people in the world, the football enthusiasts come from various groups without any different in caste, age, and even sex (Giulianotti, 2005; Utomo and Waristo, 2012). Football as one of the popular sports in the world, presents entertaining match and causes euphoria for the spectators or supporters, especially fanatical supporters (Hadi, 2017).

Great amount of spectators in a football match is a common thing, because the sport is so popular. There are two classifications of spectator according to Suroso, *et al.*, (2012), the first one is those who just see the match and those as supporters who see and support their favourite team. Spectators only enjoy the match, but supporters support and often joined in a group. The presence of football supporters gives positive and negative impacts.

According to Social Issues Research Center (2008), the positive impacts of supporters can be seen through the proximity of the members in various group activities, such as group meeting and togetherness in making banners and jargons to support their favourite team. It can maintain a sense of belonging between members that refers to group cohesiveness, which is defined as the power that makes the members of the group stay and obey group's agreements (Gibson, *et al.*, 2000). The negative impact is excessive attitude of supporters in supporting their team can cause clash between supporter groups. Wulansari, *et al.*, (2013) reveals that in an evaluation of 136 football matches, there were 2.6% or three to four riots. It shows that the goals of supporter groups were not achieved maximally, that was supporting the team with high sportsmanship in accordance with fair play program issued by FIFA. The riots started from shouting and mocking frontally to be emotionally triggered and eventually the individuals took anarchic actions (Sitepu and Setyaningsih, 2011).

The supporters have their own way to interact and communicate, on average they use attributes to communicate with team and other people as the proof of their fanaticism to their favourite team, this kind of communication behavior can be seen from various situations and conditions (Safitri and Andriyanto, 2015). According to Everett M. Rogers, communication is a process in which an idea is delivered from a source to one or more receiver, to change their behaviors (Cangara, 2012:75).

The presence of supporters is an important thing in a football match because without any supporter the match will be less interesting, flat, and meaningless. Supporters also play an important role in promoting a team's success, either to get a club's earnings from ticket sales or motivation for the team (Ridyawanti, 2008; Frandiantika, 2014; Safirti and Andrianto, 2015). Support from the supporters also influences the increasing of investment from sponsors to the team, as the fanaticism of supporters by using certain brand can attract people who see it (Kennedy and Kennedy, 2012; Abosag, *et al.*, 2012). Supporters have high tendency to enter a group communication, they implement it by joining a football supporter community to support their favourite team (Frandiantika, 2014).

Indonesian football supporters can be said as very fanatical supporters. According to Astomo, (2012), Indonesian supporter is one of the most fanatical supporters in the world, it holds the third position after English and Argentinean supporter. Psychologically, a fanatic usually cannot comprehend what is outside himself and other people or group's problems. The clear signs of fanaticism are the incapability in comprehending individual or other people's characteristics outside of his own group, even if it is right or wrong (Rizkita, 2012).

Indonesia as one of the countries that causes euphoria of football has supporter groups spread all over cities and regencies, including Brebes Regency, Central Java. In Brebes Regency

there is also a competing football team named PERSAB (*Persatuan Sepak Bola Brebes*). PERSAB as an amateur football club has a competition zone from Division III with players under 21 years old, Division II with players under 23 years old and Division I with free age. Since it was separated from branch manager of PSSI, at its first debut, PERSAB succeeded to be in top 10 of Division III Central Java Zone in 2012, and with the success PERSAB was promoted to be in Division II in 2013 (Hidayat, 2016: 132).

In 2014, there was a change in national competition format, Division I, II, and III were combined into a league named Nusantara league, as a preparation step to face the new competition season, PERSAB did some trials. In the first Nusantara league in Central Java zone, PERSAB against PERSEKAS Semarang Regency in Karang Birahi Brebes Stadium on 15<sup>th</sup> of August 2014. PERSAB was confident to play in its own home with a thousand spectators and the chant shouted by its supporters, it won the match with 2-1 (Hidayat, 2016: 139).

More achievements were achieved by PERSAB, started by being in top 10 of Division III Central Java Zone in 2012. Then in 2013, PERSAB was promoted to Division II. In the same year, PERSAB was in top 8 of Provincial Sports Week (Porprov). As semifinalist of Nusatanraa League in 2014 and the most spectacular achievement was shown by PERSAB junior by winning Indonesia Soccer Championship (ISC) or Soeratin League U-17 Central Java Zone in 2016 (Hidayat, 2016: 136).

Some achievements that have been achieved by PERSAB team are not separated from supports of many parties including supporters. PERSAB has supporter group called Saber Mania. Saber Mania was formed at the end of 2009 with the first coordinator named Sutono Kidam. The idea of Saber Mania establishment was from their concern to the development of football in Brebes Regency which at the moment was left behind compared to other regions, and they wanted to raise football in Brebes and start to compete with other regions (Hidayat, 2016: 112).

The presence of Saber Mania becomes an appropriate hospitality facility for football lovers and supporters in Brebes Regency. It is very meaningful for PERSAB players when they are playing in home or away. Support is very needed at match. Saber Mania's support influences players' mentality, whether they are pressed or not. Saber Mania was formed by football lovers and they voluntarily formed it without any force and pressure from any parties, and they established special community of football supporters which are always ready to support their favourite team, PERSAB Brebes.

According to Hidayat (2016: 114), the presence or existence of Saber Mania supporters is not seen enough, compared to Jakmania (PERSIJA), Bobotoh, (PERSIB), Bonek (PERSEBAYA), Aremania (AREMA MALANG), PANSER BIRU (PSIS SEMARANG), Pasoepati (PERSIS SOLO), and etc. Unfortunately, despite the struggle of PERSAB team to get better achievement, the support is still not maximal to encourage Saber Mania to be always there. From five thousand registered Saber Mania supporters, those who are actively support and come when PERSAB is having a match in its home are only half of the amount, and quarter of them come when it has away match (Hidayat, 2016:116).

The initial observation results conducted to Saber Mania supporters in supporting PERSAB athletes through their active role to get information is that there was no fanaticism of supporter members in giving support and uniformity or unity which showed the identity of Saber Mania supporter members. Here are the results of initial observation of Saber Mania

supporters' activities in supporting PERSAB team in a match, it can be seen on table 1 as follows:

**Table 1.** Profile of Saber Mania Supporters' Activities in Supporting PERSAB Team in a Match

No	Supporting Activities	Fanaticism		Note
		Exist	Does Not Exist	
1	Giving supportive chant or supporting song to athletes	√		Chant or supporting song given to athletes was various, using Javanese and Brebes language ( <i>ngapak/medok</i> )
2	Solidarity in giving chant or supporting song		√	Chant or supporting song was not sung together, the voices were not loud enough, not spirited enough, not all supporters sang and memorized the lyrics. Chant or supporting song was rarely sung.
3	Uniformity of costume worn to support the athletes		√	Costume worn by supporters was not the same, most of them still wore casual shirts and t-shirts with some texts made of pilox.
4	Attributes brought to support the athletes (flags, musical instruments, etc.)		√	Attributes brought by them were still few, and those who brought them were only the supporters, the flags were Indonesian flag, and white flag written by supporting texts for the athletes.
5	The crowd of supporters in supporting the athletes		√	Supporters who came to the stadium were not many, there was no excitement.

Source: Initial Observation Results, 2018

Initial observation to Saber Mania supporters in supporting PERSAB athletes shows that there was no fanaticism, it means that the support given to them was not maximal for the athletes of PERSAB, and it can be concluded that Saber Mania supporters did not show their social identity to public. As we know that social identity of supporters in supporting the athletes in a football match was very important to show the presence or existence as a belief of athletes to be motivated.

The presence or existence of football supporters in supporting the team is very important, because supporters can contribute in team victory, such as supervising the match led by a referee, distracting the opponent in a match, and motivating the team (Wolfson, *et al.*, 2005). The existence of football supporters also affects social identity when they visit opponent's home, if social identity is not enough felt then it will affect the fanaticism or make supporters' mental down in supporting the team (Fillis and Mackay, 2014).

According to Giulianotti (2002), social identity of football supporters needs to be shown to public, in order to make everybody know the goals and activities done by the supporter group, social identity of football supporters can be seen from ethics and behavior in the form of

fanaticism in supporting the team in a match, proud chant, uniform worn in a match, social activities, religious activities, and other positive activities done by the supporter group. The tendency of football supporters is expected to show their social identity, that is, to make something different and unique which can attract attention and be exposed by public such as printed media, electronic media and so on (Stoot, *et al.*, 2012).

From the data and phenomena above, the problems are how is the phenomenology of communication behavior of football supporters in giving support in Brebes Regency, Central Java, Indonesia. This research aims to study the phenomenology of communication behavior of football supporters in giving support in Brebes Regency, Central Java, Indonesia.

## Material and Method

This research was conducted using qualitative approach with phenomenology and ethnography design with critical ethnography type research (Creswell, 2012: 475). This research was conducted in several places including PSSI secretariat of Brebes Regency or PERSAB and Saber Mania secretariat, and KONI Office of Brebes Regency and Youth, Sports and Tourism (Dinpora) Office of Brebes Regency.

The sources of data in this research consisted of primary and secondary data. Primary data was collected from interview with Saber Mania supporter group, Football Coach, Football Athletes, and Football Managers, while secondary data was collected from data collection in the form of documentation analysis study data. The sources of data were collected from research informants using Purposive Sampling and Snowball technique.

The instruments used in this research were: 1) Interview guidelines on interview data collection technique, 2) Observation guidelines on observation data collection technique, and 3) Check list blank on documentation study data collection, supporting media used tape recorder, camel, and note book. To collect primary data in this research, there were three data collection techniques: 1) Direct observation, 2) Semi-structured interview, and 3) Documentation study or searching from existing archives as supporting data or secondary data.

Data validation in this research was used by using triangulation technique, by reviewing various data as a whole. Triangulation techniques used in this research were technical and source triangulation.

Data analysis used interactive analysis model developed by Miles and Huberman (1984) in Sugiyono (2015: 334). Processing and analyzing consisted of 4 interacted components: 1) Data Collection, 2) Data Reduction, 3) Data Display, and 4) Conclusion/Verifying. Data analysis was carried out during data collection. Data reduction was carried out by summarizing data into some parts with the determined categories. This division used coding. Data display was used by making short description, table, or diagram. Table and diagram were based on the determined categories.

## Result

During research setting from July to December 2018, a research was conducted on the phenomenology of communication behavior of football supporters in giving support to PERSAB Brebes. During observation, the result shows that the phenomenology of communication behavior of supporters was influenced by identity, attributes, and action, as a



message by using certain languages and symbols. The message was aimed to their football team and parties related to their favourite football team.

Communication behavior of supporters which showed over-fanaticism got various responses from the society. Even though, not all of the behaviors led to negative actions. As a matter of fact, communication behavior of fanatical PERSAB Brebes supporters mostly led to positive actions. However, that was the way of supporters in giving support for their favourite football team.

Research informants of this research were supporters from several supporter groups or supporters who did not have a group, or usually known as individual supporters. These informants had become fanatical supporters since they were little. Their identity as a football lover had been used since they were kids. Their love for football made them join PERSAB Brebes supporters fanatically.

Verbal and non-verbal supports for their favourite football team when the team had a match in and outside of the field was their way to communicate. The message which they wanted to deliver by using identity, attributes, and actions were expected to be delivered and received by the team or related parties, so that there was a feedback for the message. Verbal communication behavior of fanatical PERSAB supporters involved identity, attributes and actions, and there was a meaning of the message.

Fanatical PERSAB Brebes supporters admitted that verbal communication they did was a to support for their favourite team and intimidate the opponent and match set if the team led unfair match. They interpreted the words “*ORA OLIH ORA*” (there is no word for saying no) as a support so that the team continued to be enthusiastic, never give up, and did not embarrass. Verbal communication was shown by using banners with supporting words, critics, or critical statements from the media.

Non-verbal communication of fanatical PERSAB Brebes supporters involved identity, attributes, and actions, and there was a message which wanted to be delivered. Non-verbal communication behavior such as attraction or choreography was interpreted by the fanatical PERSAB Brebes supporters as solidarity in giving support and spirit for the team. That kind of non-verbal communication was also interpreted by them as a pride because their creativity in doing choreography, attracting or playing music was able to support the team. By using blue attributes, the supporters interpreted it as a mandatory color because it was the feature of PERSAB Brebes, their favourite club. For fanatical PERSAB Brebes supporters, blue was also interpreted as a symbol of confidence and persistent.

## Discussion

This research aims to review and categorize verbal and non-verbal communication behavior of fanatical PERSAB Brebes supporters. It was found from the results that the phenomenology of communication behavior of PERSAB Brebes supporters was influenced by three aspects: identity, attributes, and action. According to Jock Stein (in Nugroho, 2013), ‘Football is Nothing without Fans’. Football will be meaningless without the existence of fans. Fanaticism of a fan is able to contribute in positive and negative behavior. Sometimes fanaticism makes a person hate different parties so that the sportsmanship is fading away (Gheeto, 2013).

Communication behavior of a fan is related to self-concept. According to William James, self-concept is a view and feeling about self. Perception about self can be psychological,



social, and physical (Rakhmat, 2012). So, self-concept is one's view and feeling of about himself, where the perception is psychological, social, and physical and able to influence him in interaction to others. One's self-concept can be stated through his own attitude as his actualization.

Phenomenological study has tried the definition of experience in life. The purpose of phenomenological study is to seek or find the meaning of essential or basic things from the life experience. Phenomenology is a study to describe the meaning of some individual's experiments about a certain concept. Phenomenology is not only for individual, but can also perceived by groups (Herdiansyah, 2010).

Based on the results of the research, verbal and non-verbal communication behavior of fanatical PERSAB Brebes supporters can be categorized by identity, attributes, and actions, and using: 1) spoken and written language (verbal), 2) attraction and choreography (non-verbal), 3) the use certain symbols such as color and music.

Communication behavior is all activities that aim to find and get information from various sources to spread information to people in need (Suranto, 2011). Verbal and non-verbal communication behavior shown by fanatical PERSAB Brebes supporters is a part of their identity and has a potential message which is desired to be publicly delivered to aimed parties (Hogg, 2002). Identity is divided into two types: personal identity and social identity, both of will form self-image (Sedyaningsih, 2010).

The meaning of verbal and non-verbal communication behavior of fanatical PERSAB Brebes supporters can also be categorized by identity, attributes, and actions, as seen by: a) Fanatical PERSAB Brebes supporters interpreted verbal communication behavior that they did to support the team and intimidate the opponent and as a match set if the team led an unfair match, interpreted the words "*ORA OLIH ORA*" (there is no word for saying no) as a support so that the team continued to be enthusiastic, never give up, and did not embarrass. Verbal communication was shown by using banners with supporting words, critics, or critical statements from the media. b) Fanatical PERSAB Brebes supporters interpreted non-verbal communication behavior such as attraction or choreography as solidarity in giving support and spirit for the team, that kind of non-verbal communication was also interpreted by them as a pride because their creativity in doing choreography, attracting or playing music was able to support the team, and by using blue meant that blue was a mandatory color because it was the feature of PERSAB Brebes, their favourite club. For fanatical PERSAB Brebes supporters, blue was also interpreted as a symbol of confidence and persistent.

When a fanatical PERSAB Brebes supporter thinks and acts as a supporter, it is the results of interaction. The meaning of identity, attributes, and actions from fanatical PERSAB Brebes supporters is merely to give support and spirit because of their big and deep love for their favourite team, and also their unlimited loyalty as the supporters who will do anything for PERSAB Brebes. *Sesrawungan* (well-communicated) culture also influences the meaning of identity of fanatical PERSAB Brebes supporters. The strong fanaticism and loyalty of a supporter is very important and not wrong if it is shown to public. However, what should be noticed is how to deliver or dispense fanaticism and loyalty not in destructive way.

With the awareness that supporters should be more mature, value sportsmanship and solidarity. Communication behavior of fanatical PERSAB Brebes supporters that was shown well and not harmful for public to their favourite team should be appreciated by all parties especially the players, officials, and club managers. The fanatical supporters should be

considered as partners by the team in which between the supporters and team should always have communication to support and appreciate each other.

The relationship with the community is interaction and 'connection' process between sport organization (sport club) and the assets on one side and another to the community or service and target along with the community. In football, the community is fanatical supporters. Non-verbal communication behavior according to Larry A. Samovar and Richard E. Porter covers all stimulation (except verbal stimulation) in a communication setting, resulting from individuals, that has a potential message value for the sender or receiver (Mulyana, 2007).

## Conclusion

Based on the results and discussion of the results explained above, it can be concluded that verbal and non-verbal communication behavior shown by fanatical PERSAB Brebes supporters cannot be separated from their personal identity and social identity in the society. Communication behavior shown by fanatical PERSAB Brebes supporters is merely because of their love and loyalty. *Sesrawungan* (well-communicated) culture as a culture of Brebes Regency which attaches in fanatical PERSAB Brebes supporters, never give up before struggling because PERSAB Brebes is a self-concept. It affects actions and interactions of fanatical PERSAB Brebes supporters as their identity.

Suggestions from this research are that there should be open synergy and communication between fanatical supporters, team, and club management of PERSAB Brebes, cooperating in club activities, and the club should be able to educate their fanatical supporters to not commit adverse action to public, their favourite team, and the supporters. The club should also campaign so the supporters will come to the stadium, during in the stadium, and when they go back to home after watching football match. Because the professional club is absolutely supported by fanatical supporters who are also ready to be professional as well.

## Conflict of Interest

The authors have not declared any conflicts of interest.

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## **Subliminal Advertising Applications in Sport: Neuromarketing**

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### **Abstract**

With the acceleration of technology, companies have to constantly renew also their marketing strategies in order to get closer to consumers, to encourage them to buy their products and to outperform their competitors. One of these marketing strategies is neuromarketing. Neuromarketing is a marketing activity that tries to find consumers' buying behavior towards a product in a subconscious way with rational data. This marketing method makes measurements on brain waves with devices such as Positron Emission Tomography (PET), functional Magnetic Resonance Imaging (fMRI), Electroencephalography (EEG), Steady State Probe Topography (SSPT), Galvanic Skin Response (GRS), Magnetoencephalography (MEG), Eye Tracking. It is thought that neuromarketing will directly affect research and its applications in sports marketing in the near future. Therefore, in this study, a comprehensive literature review has been performed and the concept of neuromarketing has been examined thoroughly with document analysis and its effects on sports marketing has been evaluated.

**Keywords:** Neuromarketing, Sports Marketing, Consumer, Purchase Decision, Subconscious

## Introduction

Marketing has an important role among the criteria that businesses use to outperform their competitors. When the consumer is approached with the consumption dimension of the products or services offered, the marketing also has a decisive position. Habits and behaviors in one's daily life, as well as the manner in which a product or service is presented, is a major factor in the choice and purchase decision. Technological fluctuations taking place in marketing techniques, as well as in all areas, necessitate the examination of consumer psychology in order to determine the customer's intention to purchase precisely with technological means. One of the techniques used in combination of psychology and technology is neuromarketing.

Neuromarketing is a marketing activity that measures the person's reaction to the marketing elements, when a product or service is offered to him/her, by measuring the activities of the brain with the technological devices directly observing the subconscious and also a marketing activity that develops strategy by following a person's psychological processes. There is no way of informing and misleading the individual except for what they think. Because, the evaluation is made by means of the signals from the brain. Neuro marketing, in general means, is the response of the human brain to the signals sent by marketing stimuli. It helps marketers to understand the thought that drives consumers to buy, reveals the actual data that lead to consumer preferences, makes the modeling of these data and rationalize them. Thus, it allows the development of effective marketing strategies. While some of the researchers thinks that it is unethical to observe the subconscious of consumers with neuromarketing, many advocate this method since they are much more effective than traditional marketing techniques.

Nowadays, the crowding of the many people-oriented sectors such as health, education and management requires the more use of marketing and advertising by companies. Sports sector is also one of the leading areas of these applications. Sports sector is a powerful part of the overall marketing strategy. It is inevitable for the companies operating in the sports sector, which have a large share in the world market to use neuromarketing and include these strategies in their own marketing processes. In fact, there are many neuromarketing evidences, though they are not so obvious, in increasing the applications and efficiency in sports marketing.

In this study; it was aimed to make a theoretical contribution to the studies in the field of neuromarketing and to determine the current and future effects of it in the sports sector by discussing the concept of neuromarketing, how it arises, the methods, techniques and devices used in neuromarketing, the reasons for the preference of neuromarketing by the companies, the position of neuromarketing in the global marketing and the ethical dimension of neuromarketing. The document analysis, one of the qualitative research methods, is used. Document analysis covers the analysis of materials containing information about the targeted facts (Yıldırım and Şimşek, 2008).

## The Concept of Neuromarketing

The creation and shaping of the company's perception of people who is offered a product or service lies at the core of marketing. For this reason, marketing is the struggle of perception and metaphors rather than the companies. Marketing is not only responsible for teaching processed information, but also for not forgetting this information. Recently, the inclusion of technology in marketing has led to the emergence of new concepts that test whether



information is kept in mind or not. Neuromarketing is one of the foremost one of these concepts.

The human brain is a structure that perceives the messages around it with its senses and reinforces these perceptions. Neuromarketing investigates the brain and neural responses of stimuli due to market changes (Zurawicki, 2010). With neuromarketing, it is possible to better define the consumers' decision to buy, the intention to choose a brand and the factors affecting brand loyalty. Medical techniques are used to understand how our central nervous system reacts to marketing stimuli (Orzan et al., 2012). By this way, the processes of the brain for marketing are monitored. It combines psychology, neuroscience and economics to examine how the brain is physically affected by advertising and marketing strategies (Khushaba et al., 2013).

As it is known, while a company achieves positive results in the medium and long term with the right marketing techniques, it takes only a few seconds to disappear as a result of a wrong strategy. Therefore, marketing strategy should be right. This fact is of paramount importance, since the human brain behaves differently from their discourse. The contrast between the conscious and unconscious attitudes of the consumers in their movements may also lead to misdirection of the marketing strategies of the companies. Since the vast majority of consumer purchases are made unconsciously, it is necessary to know how the brain works to estimate the buying behavior. Perhaps the most important feature of neuromarketing that distinguishes it from other marketing techniques is that the information processing mechanisms in the human brain provide the entrepreneurs with the knowledge to produce ideas to improve their communication decisions with their customers (Pop and Iorga, 2012).

It can be concluded that neuromarketing has a different approach in terms of researching the reasons of consumption for the customer. But, at the same time it should not be missed that neuromarketing is a part of general marketing and it makes a major contribution to general marketing techniques by measuring consumers' purchasing reactions experimentally (Plassmann et al., 2015).

The continuous change of technology and consumer needs has led to the emergence of neuromarketing in general marketing.

### **The Emergence of Neuromarketing**

Neuromarketing has developed slowly over the centuries with its origin in Ancient Egypt. The development of molecular biology, electro physiology, and computational neuroscience in the second half of the 20th century has helped us to understand that the study of neuronal networks in the brain causes psychological reactions, such as emotion, cognition, and mental behavior, and the resulting physiological reactions (Babu and Vidyasagar, 2012).

Neuromarketing has emerged in modern times when Professor Gerry Zaltman has been using fMRI since 1999 to expose consumers' aspects of marketing stimuli. However, Professor Ale Smidts, for the first time in 2002, has been a direct scientist working on neuromarketing (Belden, 2008).

The first reported use of the word neuromarketing in the world of marketing has been published in an Atlanta press released on June 1, 2002, and the advertising company, BrightHouse, has announced that a division of labor, including the psychiatrists of Emory University, has been using fMRI for marketing research (Fisher et al., 2010). BrightHouse and SalesBrain have been the first US and global companies to offer neuromarketing research and consultancy services that advocate the use of technology and information from the field of cognitive neuroscience (Lee et al., 2007; Fisher et al., 2010).



## **Neuromarketing Methods, Techniques, and Devices**

As a term of neuromarketing; it aims to provide fruitful information to the marketers and researchers by measuring consumers' subconscious and unconscious behavioral responses and intensity, which have effects on choosing decisions of consumers in marketing, with medical techniques, methods and devices associated with neuroscience. The most common medical methods, techniques and devices used in neuromarketing are as follows (Lee et al., 2007; Hubert and Kenning, 2008; Eisenbarth, 2018):

### **Positron Emission Tomography (PET)**

Positron Emission Tomography is one of the methods of nuclear medicine used for diagnosis and treatment of important diseases. In the PET method, agents called positron are sent to the blood via injection. Gamma rays occur when positrones collide with electrons in the body and the device detects and displays them. Thus, the activity of the sections is measured by the increase in blood flow in the brain. For example, when the consumer see the product, the product packaging, or design; the device perceives and observes the reactions which occurs in the middle and upper part of the brain that detects the message and comments it (Belden, 2008).

### **Functional Magnetic Resonance Imaging (fMRI)**

MRI is a method used to detect activity in the active areas of the brain in 3D. fMRI uses the data obtained based on the rate of blood flow and the oxygen concentration in the blood to detect these regions. Blood and oxygen flow is increased to the active brain regions compared to other regions and this flow is detected by fMRI. According to the subject of the researches, the evaluation is done in the direction in which region of the brain this flow increases. fMRI is in parallel with the PET method. It is also one of the commonly used methods in marketing research (Belden, 2008).

### **Electroencephalography (EEG)**

EEG or electroencephalography is a method of measuring the electrical activity of nerve cells during sleep and awake. Being economical, easy interpretation of data and portable size of the device are among the most preferred methods in neuromarketing. This method provides information about brain waves. Measurements are made with electrodes placed on the head (Camerer et al., 2005).

### **Steady State Probe Topography (SSPT)**

Steady-state probe topography is a variant of the EEG, which allows for the millisecond time scale to be studied in a cortical (centralized data analytics of the human brain) electrical activity (Gray et al., 2003).

### **Galvanic Skin Response (GRS)**

Galvanic Skin Response Device measures the electrical conductivity of the skin with the help of sensors. In the case of excitement and calmness, the response of the skin to electrical conductivity is different. When a state of excitement occurs in the body, the alert is transmitted to the nervous system. Stimulation of the nervous system causes sweat glands to work more (Shi et al., 2007).

### **Magnetoencephalography (MEG)**

Magnetoencephalography is a functional imaging technique for mapping the brain activity using highly sensitive magnetometers in magnetic fields produced by electrical currents in the

brain. MEG applications provide basic research on the perceptual and cognitive brain processes, the function of the various parts of the brain, and the identification of neuro-feedback (Hillebrand and Barnes, 2002).

### **Eye Tracking**

Eye tracking is a method used to verify where a person is looking. Eye tracking provides objective and quantitative information. Eye movements are recorded in milliseconds to determine a user's attention patterns for a particular stimulus. It compares the duration of each participant in each field and the patterns of screening groups of the participants. The ability of an eye tracking device to grasp the real perception of the participant is only possible with the adjacent inquiry of the participants. Because, what is automatically perceived by the eye does not mean that the brain perceives it consciously. Therefore, participants should be questioned about what they see in order to remember what the participants saw (Theuner et al., 2008). A large number of markers uses this method in web content, product display, packaging and advertising design.

Neuroscience has the potential to connect to the social sciences in various ways. Many of the most central issues in the social sciences research - such as the nature of individual choice, the factors that shape social interactions, and the ways in which societies react to unexpected events - can better benefit from neuroscience because of a better understanding of the underlying neurocognitive mechanisms (Levallois et al., 2012). Neuroscience research also directly affects the theory and practice of marketing and seems to continue to influence it further.

### **Why do the Companies Prefer Neuromarketing Method?**

Market research has an important place in the successful management of marketing strategies. Many large or small companies want to reach the cause of emotion that pushes consumers to buy. Consumers are motivated by the perception of psychogenic stimuli in the process of purchasing a product or service and when making a purchase decision. For this reason, while companies perform marketing activities, they are successful only if they offer stimuli that affect consumers' perceptions and behaviors directly. The innovative approach of neuromarketing shows that it is included in marketing research. Neuromarketing is a neuro-economics subfield that addresses marketing-related problems through methods and analyzes from brain research and promotes the integration of neuroscientific findings in marketing sciences. With the dazzling images spread from brain scanning in the scientific and popular media, researchers in marketing have been affected not only by psychological, but also by physiological reactions, by consumers' perceptions of a product based on the main element of the marketing mix (Gang et al., 2012).

The interest in recent neuroeconomics has been significantly overlapping with the area of marketing research. Since the birth of neuromarketing, researchers have focused more on some areas, such as the impact of advertisements and memories (Touhami et al., 2011). Marketers are excited about brain imaging for two main reasons. Marketers believe that neuroimaging will lead to more efficient trade between costs and benefits. This hope is based on the assumption that people are not able to fully express their preferences when they are asked to make it clear, and they contain confidential information about the real preferences of consumers in their brains. This type of confidential information, in theory, can be used to influence buying behavior, so that with improved product design and increased sales, the cost of performing neuroimaging studies will outweigh. At least, brain imaging not only illuminates what people love, but also what they will receive (Ariely and Berns, 2010).

The data obtained from consumers through survey, focus groups etc. are in the person's own control. Neuromarketing, however, makes measurements with devices in the subconscious of the person, and determines the behaviors that are actually taken, not the views that a person reflect. Therefore, it differs from traditional marketing techniques (Shiv and Yoon, 2012).

Consumer transmits the alerts to the brain with sense organs and the brain makes these alerts meaningful by manipulating them. Neurotechnology provides opportunities for marketers to use information about the potential triggers which can provide very positive emotional responses (Wilson et al., 2008). However, it cannot be used to find the purchase button in the human mind and can be used as an additional marketing tool besides traditional market research (Kolar, 2014).

Neuroscience and marketing seem likely to come up with new technologies to enable researchers to better understand the role of emotions in decision-making, to develop more effective procurement methods, to create more trust and brand loyalty, to measure the intensity of an individual's tastes, and to be more convincing marketers in general. (Wilson et al., 2008). However, the use of technology that explores the inner workings of the human brain, especially those that go beyond what would be revealed in traditional behavioral tests, emerges important ethical problems (Murphy, 2008).

If neuromarketing practices are misused, underused or violates ethical rules, it can generate the risk of trespassing the private sphere of people, causing physical or psychological harm, or causing unnecessary impact on people's behavior (Ienca and Andorno, 2017). Therefore, the boundaries of the methodology to be used in neuromarketing should be well decided.

### **Ethical Aspects of Neuromarketing**

Since the term neuroethic was first introduced in 2002, there is no exact definition yet. It covers basic philosophical human concepts such as free will, practical issues such as addressing neurological issues related to personal identity, autonomy and human dignity, privacy and clinical practice (Gatterer, 2012).

As a new application of neuroscience methods, neuromarketing studies need to be carried out in a responsible manner. Neuromarketing studies bring also important professional, ethical and scientific concerns. This new area is also an example of professional ethics debates in the complexity of academic-industrial relations (Fisher et al., 2010). The use of data derived from brain imaging reveals ethical dilemmas for marketers and researchers, since they are trying to limit the understanding of customers' true intentions and some activities lack transparency. Therefore, moral issues arising from neuroscience practices can be seen as an invasion of the privacy rights of individual consumers. Hence their consent and understanding is required (Gang et al., 2012). Ethical and confidentiality concerns in neuromarketing are frequently discussed. Accessing the unconscious of the consumer and leaving them vulnerable to purchase emphasizes the necessity of ethical rules. For researchers, manipulation of the information for neurosurgery, to worry them to get information as informed by the experimental measurements (thought structure, effect level, interest, emotional shooting, etc.) and other applications are seen as objectionable (Ienca and Andorno, 2017).

Nowadays, many research articles aiming at addressing ethical concerns of marketing go beyond the conduct of a study that asks consumers about their opinions on specific applications. Many times, in textbooks and even in marketing ethics researches have discussed ethical issues such as consumer happiness and honest marketing. However, the great social needs of today require consumers to go beyond what they like (Rotfeld, 2007). Of course, the unethical, fundamentally flawed and potentially harmful neuroscience perception

of neuro-marketing should not be mistakenly applied to academic marketing research (Bakardjieva and Kimmel, 2017).

There is no reason for neuromarketing not benefit from neuroimaging, even if there is no more than the start of economic research in marketing. Indeed, the field of neuromarketing should be considered a legitimate and important area for future research. This is very important to ensure a better understanding of human behavior. Applying neuroimaging to marketing research problems should enable us to better understand the impact of marketing techniques and also to gain insight into key issues related to business relationships with previously challenging responses (Lee et al., 2007).

### **Sports and Neuromarketing**

Sports marketing is the presentation or introduction of an industrial product or service through sports. Research in this area has increased significantly in recent years, with major sporting events such as the Olympics and the World Cup. Despite this growth, the understanding of successful and dynamic sports marketing is still evolving. There is an increasing consensus among sports marketing researchers that marketing intelligence and planning should be the target of sports organizations (Ratten, 2016).

Today's corporate understandings are the self-imposed brands that are beyond the boundaries, eliminate cultural differences and appealed by large audiences. In a world where major global sports brands are emerging as sovereign powers, diversity in thought and practice is an important feature of the next phase of the sports market (Chadwick, 2007). Thus, neuromarketing, which follows a practical and technical path, seems to be the next step in sports marketing.

The ease of accessing more people through sports is a priority not only for companies that offer products or services through sports, but also for companies that use sports as a tool. It is clear that sports marketing, which makes itself accepted in this field, will provide companies with great opportunities when combined with neuromarketing. In fact, Darabi et al. (2017) applied neuromarketing in sports marketing. In that study, they used electroencephalography and analyzed brainwaves. At the end of the research on sports brand ads, they have stated that they can understand the effect of ads on customers' brain waves (alpha, beta, delta and theta).

In recent years, sports marketing has become even more interesting especially in the areas of advertising and sponsorship. As it is generally known, sponsorship is a non-traditional marketing technique and sports sponsorship practices provide companies with extraordinary economic development in recent years (Close et al., 2015). On the other hand, Fett (2011) have stated that companies began to use neuromarketing in sports sponsorship, which enables the application of neuroscience technologies to the field of market research in order to identify the true emotions of sports audiences in this field and to reveal the most effective emotional drivers.

Sports sponsorship can easily create a brand awareness, develop image and increase sales by linking the target group to the company. In this case, the application of neuroscience techniques to measure the effectiveness of sports sponsorship and how athletes react to the sports content of their brains makes sports marketing even more important for companies. Emotional triggers create the impulse to buy. Neuroscience proves the impact of emotions on purchasing decisions through laboratory investigations. Companies that have already established emotional ties through sports can therefore easily code their brand to the subconscious of sports audiences through neuromarketing (Fett, 2011).

As a result, the combined use of experimental instruments such as electroencephalography with eye tracking will provide better results, taking into account the development of the sports management industry, no matter in which case the neuromarketing technique is applied in the field of sports marketing. Combined use of various devices to achieve an increasing growth in the economic sector, to find reasons to make a purchase decision, and to influence waves can be more beneficial. Thus, the analysis of these signals creates an impact on the purchasing decisions of consumers (Darabi et al., 2017).

## **Discussion and Conclusion**

The main aim of the companies in meeting with various sports or athletes is the fact that sports audiences are actually their target groups and companies try to enlarge their place in audiences' perception formation. For this reason, it is important that sports and marketing managers make decisions based on robust data while carrying out such perception management towards the target audience. In fact, neuromarketing is a method that will provide these data to managers. Because, neuromarketing practices are based on scientific and academic studies especially in the fields of medicine and psychology.

The most important element here is the scientists and professional marketers who will do this work. If the ethical rules are not violated when using the data obtained, neuromarketing seems to bring many innovations to sports marketing. Because it can trigger a social change in the masses that exist in the sport. If the ethical rules is violated, it is strong enough to cause serious damage to sports and marketing. Because it carries the marketing deep into human psychology.

On the other hand, sports sponsorship, which increases the popularity of sports, is one of the fastest marketing tools. It is also possible that the neuromarketing will begin to carry out marketing activities using sports sponsorship. Sports sponsorship will play a key role in the dissemination of individual subconscious responses to be achieved through especially neuromarketing to the large masses.

In the face of these developments, if neuromarketing provides functional benefits in general marketing, sports marketing may shift in a very different direction. Companies will be able to offer more creative products and services by creating a systematic system that will provide adaptation to the perceptions and purchasing reactions of sports consumers.

## **Conflict of Interest**

The authors have not declared any conflicts of interest.

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## **Management Evaluation of the Sepak Takraw Association of Indonesia (PSTI) Administrators in Fostering Sepak Takraw Sport Achievement in Brebes Regency, Central Java, Indonesia**

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### **Abstract**

The research aims to analyse management evaluation of the Sepak Takraw Association of Indonesia (PSTI) in fostering sepak takraw sport achievement in Brebes Regency, Central Java, Indonesia. This research was conducted using qualitative approach with ethnography design and critical ethnography type research to evaluate and criticize. Sources of data were collected from research informants by using Purposive Sampling and Snowball technique. Data collection technique was conducted by using observation, interview, and documentation study, data analysis was conducted inductively by using interactive cycle by Miles and Huberman. The results of study are: 1) The fostering of sepak takraw carried out by The Regency Administrators (Pengkab) PSTI Brebes Regency was in accordance with the vision, mission, goals and government's policies, 2) Human resources in PSTI Brebes Regency were good and qualified, and supported by sufficient facilities, infrastructures and fund, 3) The implementation of programs was well-implemented, stages of program implementation were carried out by the coaches, and coordination with various parties was well-coordinated. 4) The results of achievements obtained by the athletes, coaches and administrators was very well but the welfare was relatively adequate.

**Keywords:** Evaluation, Management, Administration, Sepak Takraw

## Introduction

Sport achievement is a factor which can increase nation's dignity in international world. Sport achievement can be achieved if existed fostering system is well-planned and implemented. Sport fostering can be implemented from region or province as the front guard in developing National sport achievements. Main sports of each province are expected to notice and regulate each organizing sport form in a planned, systematic, and professional manner (Laksana, 2017).

According to Rumini (2015), fostering achievement is a systematic effort to get better achievements. Systematic sport fostering achievement, with qualified human resources can be led to the increasing of self, responsibility, discipline, sportsmanship and eventually can get sport achievements to encourage national pride. Peak achievements in sport can only be achieved through systematic, planned, regular and continuous fostering process, in which national fostering sport process covers introduction, fostering achievement and getting peak achievements, success in fostering athletes concept to get achievement depends on coaching system (Widowati, 2015). Therefore, sport development needs to be paid attention proportionally through systematic fostering, management, planning and implementing to support the progress of the sport.

Romadoni (2017) explains that management is a science which regulates all activities of an organization by utilizing capabilities and skills of its human resources through cooperation done by two or more people to achieve the goals. Further, Razaghi *et al.*, (2013) state that measurement of performance is the most important managerial activity. A good management is programmed and implemented by professionals (Retnowati, 2009). According to Thomas (2011), management is a coordination process of various human resources of organization (man, materials, machine) to achieve organization's goals. Achievement of goals is done by the use of man, materials, and machines. Management is a cooperation process that uses human and non-human resources by applying management function consisted of planning, organizing, implementing, and supervising to achieve the goals effectively and efficiently (Darmasutri, 2014).

Management is generally how a leader is able to utilize his own resources as optimal as possible, so he can achieve the goals of organization. An organization will be efficient if the investment cultivated inside the organization is in accordance or giving profit as expected. Further, an institution will be effective if in its management, it uses proper and right principles so that various activities of the institution will achieve the expected goals. The factor in decreasing sport achievements in Indonesia such as limited facilities and infrastructures, management, athlete recruitment, and so on. The success of fostering achievement is determined by various elements. One of the elements is good management application (Nurchahyo, 2014).

The goal is beneficial to identify the targets so that it will facilitate the use of resources for long-term fostering. Based on the instruction above, there is a proper fostering model which can be applied to achieve optimal fostering sport system. Nowadays, the effort of Indonesian government has been done by establishing fostering model in student environment which is also known as student training (*diklat pelajar*) in some provinces in Indonesia with the object is student, the training is known as Student Education and Training Center (PLPP). Students as proper human resources are able to find accomplished athletes in the future. It is based on the quantity of students in Indonesia which is quite big so that it has great opportunity of potential athletes if they are fostered in stages and continuously.

Today sepak takraw is still one of unpopular sports and not favourable by the society of all categories. Sepak takraw is still a sport for middle and low class society. It is because this sport is quite difficult to be played, has a high or fatal risk of injury, and many communities consider it as a sport that requires difficult movements. However, sepak takraw is developing rapidly. It can be seen in 1983 that all regions in Indonesia had a Region Administrator (Pengda) which today it is known as Province Administrators (Pengprov) of Sepak Takraw Association of Indonesia (PSTI).

But until 2018, not all of the regions in Brebes Regency have fostered sepak takraw. The difficulty in popularizing sepak takraw is because it has high level of difficulty. Besides the factor of difficulty, in sepak takraw, it is painful if the ball hit children's head or legs, so it becomes one of the obstacles to develop sepak takraw in elementary or high schools. The lack of championship events and the low public interest towards sepak takraw makes it hard to be fostered. According to Sulaiman (2008: 1), sepak takraw is still a sport for middle and low class society, because it is difficult to be played, had high and bigger risk of injury.

The strategic issues encourage the administrators of PSTI Brebes Regency to immediately respond the issues by establishing fostering programs including 1) Improving the quality of human resources, 2) Fostering and Assisting clubs and schools, 3) Socializing sepak takraw to all sub-districts in Brebes Regency, 4) Coordinating with related parties and persuading companies to make a promotion, 5) completing the development of Sepak Takraw Sports Arena in Brebes Regency.

The success of a fostering sport should be supported by some interrelated factors. Supporting factors in fostering athletes are professional coaches, sufficient facilities and infrastructures, systems and methods, proper training program, professional administrators and supporting environment (National Sports Committee of Indonesia (KONI), 2000; Proios and Athanailidis, 2013). The success or failure of a program will be known after conducting evaluation on the implemented program, so that it will be decided whether the program needs to be continued, revised or stopped. According to Arikunto (2009: 1), evaluation is a process of determining the results which have been achieved by some planned activities to support goal achievement.

CIPP model in this research will be used to evaluate objects and one of them is evaluating Fostering Sepak Takraw program in Brebes Regency. By evaluating Fostering Sepak Takraw program in Brebes Regency seen from Context, Input, Process, Product aspect, what is actually happened and should be done will be found out and whether the program will be continued because what has been implemented based on the expected goals or it will be stopped.

Based on the explanation above, the problems are how is the management evaluation of Sepak Takraw Association of Indonesia (PSTI) administrators in fostering sepak takraw sport achievement in Brebes Regency, Central Java, Indonesia. This research aims to study management evaluation of Sepak Takraw Association of Indonesia (PSTI) administrators in fostering sepak takraw sport achievement in Brebes Regency, Central Java, Indonesia.

## Material and Method

This research was conducted by qualitative approach with ethnography and critical ethnography type research (Creswell, 2012: 476). Research approach used in this research

was program evaluation by using CIPP mode (context-input-process-product). This research was conducted in Pegkab PSTI Brebes.

Resources of data in this research consisted of primary and secondary data. Primary data was collected from interview with the administrators of Pengkab PSTI Brebes, Sepak Takraw coaches, and Sepak Takraw athletes, while secondary data was collected from data collection in the form of documentation analysis study. Resources of data were collected from research informants by using Purposive Sampling and Snowball technique.

The instruments used in this research were: 1) Interview guidelines on interview data collection technique, 2) Observation guidelines on observation data collection technique, and 3) Check list blank on documentation study data collection, supporting media used tape recorder, camel, and note book. To collect primary data in this research, there were three data collection techniques: 1) Direct observation, 2) Semi-structured interview, and 3) Documentation study or searching from existing archives as supporting data or secondary data. Data validation in this research was used by using triangulation technique, by reviewing various data as a whole. Triangulation techniques used in this research were technical and source triangulation.

Data analysis used interactive analysis model developed by Miles and Huberman (1984) in Sugiyono (2015: 334). Processing and analyzing consisted of 4 interacted components: 1) Data Collection, 2) Data Reduction, 3) Data Display, and 4) Conclusion/Verifying. Data analysis was carried out during data collection. Data reduction was carried out by summarizing data into some parts with the determined categories. This division used coding. Data display was used by making short description, table, or diagram. Table and diagram were based on the determined categories.

## **Result**

### **The Results of Management Evaluation Observation of Sepak Takraw Fostering**

The results of Context analysis including vision, mission, and goals were the power and direction of organization which were well-implemented. Support/policies of regional government on sepak takraw fostering in Brebes Regency was fair, and it even became one of sports that got more attention. Table 1 shows that Pengkab PSTI Brebes Regency formulated vision, mission clearly and the vision and mission of fostering program were implemented.

The support of Brebes Regency government through National Sports Committee of Indonesia (KONI) Brebes Regency on Pengkab PSTI Brebes Regency was very good, it is proved by giving quite big funds than other sports as well as the facilities and infrastructures. It was formulated clearly, implemented and oriented to the future.

The results of Input evaluation related to coaches and athletes show good results, owned human resources consisted of 24 active athletes with 12 males and 12 females. The achievements of Brebes regency were being the third and fourth winner on province level during the last five years, the athletes represented PON, Sea Games, and World Championship, and being region chosen athletes (Pelatda) in Province. The coaches were 4 people and they were licensed from regional to national level. The comparison between coaches and athletes was 1:6.

**Table 1.** The Results of Context Analysis on Pengkap PSTI Brebes

No.	Aspect	Achievement			Note
		Good	Fair	Poor	
1.	Vision	√			Clearly formulated, well-implemented and oriented to the future.
2.	Mission	√			
3.	Goals	√			
4.	Government's Policy	√			

(Sources of Data: The Results of Observation)

**Table 2.** The Results of Input Evaluation on Pengkap PSTI Brebes

No.	Aspect	Achievement			Note
		Good	Fair	Poor	
1.	Human Resource		√		There were 24 male and female athletes, 4 coaches, 5 Fields of Sepak Takraw Sports Arena, 24 Balls, 5 Nets.
2.	Facility and Infrastructure		√		
3.	Funding		√		The sources of KONI fund were from APBD, donors and sponsors.

(Sources of Data: The Results of Observation)

These successes cannot be separated from the support of facilities, infrastructures, and funds. The complete training facilities owned by Pengkab PSTI Brebes Regency is based on National Standard including sepak takraw sports arena with 5 fields, and the floor is woodentype, spectator seats with 1.000 capacities, six toilets, a changing room, a warm-up room, an honorary stage, and a prayer room. Other facilities are international standardized sepak takraw balls and nets. Funds for supporting the organization were from KONI of Brebes Regency, and also incidental funds from donors and sponsors including membership dues, BUMD and other private companies.

The results of Process analysis including the implementation and coordination of program were good, the program implementation stages were implemented by coaches and administrators. Main tasks and function of administrator were well-done so that the coordination with various parties was good internally and externally.

**Table 3.** The Results of Process Evaluation on Pengkap PSTI Brebes

No.	Aspect	Achievement			Note
		Good	Fair	Poor	
1.	Implementation of the program		√		The coaches made and implemented the training program, training program was planned in accordance with the need for achievement improvement, and made systematically.
2.	Koordinasi	√			Coordination with some parties related to good implementation.

(Sources of Data: The Results of Observation)

**Table 4.** The Results of Product Evaluation on Pengkap PSTI Brebes

No.	Aspect	Achievement			Note
		Good	Fair	Poor	
1.	The obtained results		√		Regional champion, province champion, regional champion and international champion.
2.	Welfare		√		The welfare was fair.

(Sources of Data: The Results of Observation)

### The Results of Interview on Management Evaluation of Fostering Sepak Takraw

On the interview which was conducted, the distribution of answers of each respondent was resulting in the following summary:

#### Management Structure

In PSTI Brebes Regency management structure, it used service period until the implementation was over. The structure of PSTI Brebes Regency consisted of Person in Charge, Coaches, Coach Assistants, Dormitory Manager. Management structure of PSTI Brebes Regency team is shown on Table 5.



**Table 5.** The Management Structure of PSTI Brebes Regency

No.	Structural Position	Position in Office
1.	Coach/Protector	1. Regent of Brebes Regency 2. Province Administrators (Pengprov) KONI of Central Java
2.	Advisor	The Head of KONI Brebes Regency (Retired School Principle/Sport Education Teacher)
3.	Chairman	The Members of DPRD Brebes Regency in the field of Educational and Sports
5.	Daily Executor Daily Chairman Secretary Treasurer Facilities and Infrastructures Fostering Achievement Referee and Match Organization and Public Relations Coach	Determined by PSTI in Province, human resources came from educational background majoring sports education and sports coaching, and on the average they became sports education teacher and entrepreneurs who loved sepak takraw.
6.	Student Athlete	Determined by PSTI in Province and Brebes Regency, through recruitment and invited based on periodically monitoring.

### Athletes

Recruitment of athletes of PSTI Brebes Regency was implemented by:

1. Recommendation, skill test and observation,
2. The role of main regional sport administrators,
3. Supervising from the community, environment and mass media.
4. Openly announced,
5. Based on sports science and technology with test parameter.

Monitoring was done in student sports week championship (POPDA) in Central Java and regional championship, called talented athletes in sepak takraw from all over regions in Brebes Regency. The quality of athletes could be seen from the match, then selection was carried out. Parameter Standard of athlete test was carried out by: 1) Measuring height, 2) Measuring fat thickness, 3) Measuring lung volume, 4) Measuring Lung Maximal Capacity ( $VO_2Max$ ), 5) Measuring Versatility, 6) Measuring balance, 7) Measuring durability, 8) Measuring upper body durability, 9) Measuring leg muscle explosive power, 10) Measuring arm muscle power.

### **Coaches**

Recruitment of coaches was done by doing assembly between administrators. Besides being coaches, they were also expected to be good example, leader, and father for the athletes. From the results of the research, it was found that there were some aspects related to the coaches of PSTI Brebes Regency, including:

1. The Quality and the Amount of Coach
2. The Quality and Quantity of Coach
3. Academic and skill requirements of coach
4. Certification of sports coach
5. Welfare

Based on the results of the research, the quality of PSTI Brebes Regency coaches could be said as fair, because they knew the coaching system and implemented the planned program and they had high discipline and firmness to the athletes. PSTI Brebes Regency had 4 coaches. All of the coaches were former sepak takraw athletes and sports education teachers so that they were able to give materials in each training session.

PSTI Brebes Regency recruited coaches had followed coaching education so they had coaching certification. Coach assistants also followed coaching education and had coaching certification.

Based on the data, it can be concluded that the quality of coaches was good, it can be seen from the coaching system and program which were well-designed and implemented, coaches and coach assistants had followed coach education.

### **The Implementation of Training Fostering**

The training program was 4 times training in a week, done in the morning and afternoon from Monday to Wednesday in the afternoon, while on Sunday it was usually done in the morning, for physical and match training. The trainings included physical, technical, and mental training. The training program was used as a reference for long-term training stages which included formation training, and stabilization training stage.

### **Discussion**

Based on the results, in general it shows that management evaluation of Sepak Takraw Association of Indonesia (PSTI) administration in fostering sepak takraw achievement in Brebes Regency was categorized as fair. It can be proved from the results of the research with observation, interview, and documentation method.

Based on the results obtained from PSTI Brebes Regency administration, the main goal of establishment of sepak takraw fostering was regeneration of sepak takraw athletes and development of talented students on sepak takraw, in order to get planned and programmed direction to increase male sepak takraw team achievements in province or national level.

There were coach, person in charge, secretary, treasurer, coaches, and each section of PSTI Brebes Regency administrators when it was established and formed. In the process of selecting PSTI Brebes Regency administration, it was based on the meeting of administrators and coaches. Work programs of administrators consisted of weekly, monthly and annual program. The division of work was clear and adjusted with each field.

Based on the field and analysis data on organization of PSTI Brebes Regency administration described through administrator management, the recruitment of coaches and athletes, implementation of training program, supporting facilities and infrastructures, and funding system, there were a lot of problems which had supporting and obstacle factors in the fostering process, so that the process was still be able to develop sepak takraw.

### **Supporting and Obstacle Factors**

Achievements of the athletes of PSTI Brebes Regency administration which was increasing from year to year so that athlete's regeneration would not stop. Commitment and consistency of administrators and coaches would develop as well. The fostering of PSTI Brebes Regency administrator was done by implementing organization management with all of its limitations. And also the support of athletes' parents to support their talents. For example, parents always supervised or saw their children training or matching so that it became one of the motivations for athletes.

Reviewed from administration management, the management was not maximal due to the administration was mostly implemented by one or more people. The minimum fund for fostering PSTI Brebes Regency team because the funding was only from APBD and few donors. So, if the team wanted to join in a competition, the fund was limited. It was difficult to find male players for long-term fostering.

Pahl, *et al.*, (2008) argue that management is a process to get results efficiently and through other people. Further, Pitts (2001) states that management is an art to finish through from other people. According to Mutholib *et al.*, (2013), management is a way to implement a program in order to make decisions in the form of directions and targets appropriate with what is previously planned

According to Comoglio and Botta (2012), the functions of management are: (a) planning, (b) organizing, (c) coordinating, (f) reporting, and (g) budgeting. Further, Bengtsson *et al.*, (2000), classified management functions as: (a) planning, (b) organizing, (c) staffing, (d) directing, and (e) controlling. While according to Huselid *et al.*, (1997), management functions include: 1) planning, 2) organizing, 3) actuating, and 4) controlling.

Recruitment is a set of activities to find and attract job applicants by using needed motivation, skills, capabilities, and knowledge to cover deficiencies which were identified in staffing planning (Sendow and Mekel, 2015). High achievements can only be achieved by athletes who are incredibly talented and have good fostering tiered and continuous. Tiered fostering achievement has implications towards the importance of evaluation which should be implemented periodically since athlete screening stage until final implementation program and the achievement which is achieved. On the principles known as recruitment are seeking, finding, and attracting job applicants to be the employees on a certain organization. So that the recruitment can also be defined as a set of activities to find and attract job applicants by

using needed motivation, skills, capabilities, and knowledge to cover deficiencies which were identified in staffing planning (Luila *et al.*, 2013).

Financial is basic need for everyone in order to avoid financial problems. The difficulties in financial are not only the function of income (low income), financial problems can also emerge if there is miss management such as missing in the use of credit, and no financial planning (Yushita, 2017).

On organization life, financial is one of the vital resources. With money resources, all aspects can be implemented as it should be as a basic compensation for all existed human resources, and a good financial report is also needed. It is in accordance with Indrayani's (2013) opinion that financial report of a company is very important because it is a structured presentation from financial position and performance. Financial report also shows the results of management responsibility over the use of resources.

Financial related to financing is one of the resources which can improve employee's performance, but if it is badly managed it will be an obstacle. In other words, each activity carried out by school needs funding (Mulyasa, 2004: 48).

Budget is an important element in management control system because budget is not only a financial planning, but also as a controller, coordinator, communicator, and evaluator of performance and motivation (Anton *et al.*, 2016).

### **The Lack of Sparring Partner**

Training program is a supporting component of training program to achieve peak achievement which is directly made by coaches and coach assistants. The making of training program is one of the strategies to achieve future goals of athlete's achievement as optimal as possible. Coaches make training plan by choosing alternatives as demands needed to be implemented to increase achievements in the present and future as the targets of the athletes.

After having potential athletes, coaches should make training plan to achieve the determined goals properly. The goals of long-, middle- and short-term training are target chain or final target; intermediate target and objective and measured target.

Training program is said to be good and proper if the plan is made by considering defining factors to achieve the goals, the factors are: athlete's talent or material, skill, the age of training, facilities and infrastructures, fund/funding, environment, trainer, and time. Besides implementing routine training program, match training is also implemented with other teams to test and train the application of technique and tactic in playing and cultivate match mental to athletes.

Training program for most sports is generally divided into three stages: (a) general and special preparation, (b) pre-match stage (Harsono, 2004: 24; Bompa, 2009: 78).

### **Conclusion**

The result of Product Evaluation Analysis including the result of achievements and welfare. The achievements of sepak takraw athletes in Brebes Regency in the last five years was fair and they got the third and fourth position, so that some athletes from Brebes Regency were trusted to represent Indonesia in Sea Games and World Championship event.

However, the welfare of the athletes and coaches was relatively enough. The welfare was received when the athletes got achievement and they were appreciated by bonus or coaching

money. Sepak takraw fostering carried out by Pengkab PSTI Brebes Regency was in accordance with the vision, mission, and goals of the organization, government's support, and policies on sepak takraw fostering was very good. Sepak takraw fostering in Brebes Regency had good and qualified human resources and it was supported by adequate facilities and infrastructures and sufficient funds to finance planned fostering programs.

Sepak takraw fostering of Pengkab PSTI Brebes Regency consisted of aspects of program implementation was well-implemented, stages of program implementation was implemented by the coaches, main tasks and functions of administrators were well-implemented so that the coordination was easy to be done with various parties. Fostering of Pengkab PSTI Brebes Regency was quite good achievement achieved by the athletes, coaches, and administrators.

### **Conflict of Interest**

The authors have not declared any conflicts of interest.

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## **The Effect of Coach-Athlete Relationship upon State-Anxiety Levels of the Athletes**

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### **Abstract**

In the sports which competitive, success and performance are prioritized, new researches are constantly being carried out to improve the performance of the athletes and to increase their success. These researches emphasize the importance of psychological factors in sports. The anxiety that each athlete may experience for various reasons may affect the performance of the athlete as one of these psychological factors. However, the coach-athlete relationship is another factor that can affect the performance of the athletes. This study aims to determine the effect of coach-athlete relationship on the state anxiety levels of athletes. In individual sports taekwondo branch, 107 female and 136 male of the total 243 athletes, and 177 male athletes in team sports American football branch total 420 athletes were voluntarily participated in the study. This research was planned as quantitative research and the survey method was used. In this study, coach-athlete relationship and Spielberger state-trait anxiety inventories were applied. The collected data were transferred to SPSS package program and Mann Whitney U test, Spearman rank difference correlation coefficient and multiple regression analysis were applied. According to the results of the study, it was determined that the relationship between coach and athlete was related to state anxiety and there was in negative direction correlation between the coach-athlete relationship and the anxiety levels of the athletes. Accordingly, as the level of relationship between the coach and the athlete increases, the anxiety levels of athletes decrease.

**Keywords:** Coach-athlete relationship, anxiety, state anxiety

## Introduction

A human being, which is a social being, needs other people's presence and assistance to meet and reach his/her needs in life. Such a need creates the communication between individuals and thus mutual relationships necessary. People's knowledge of each other, people's knowledge of the needs of each other and people knowledge of requirements of each other and people's mutual effort to meet the requirements and needs of each other materialized thorough positive social relationships established between them. The coach-athlete relationship is at the center of human relations in sport environments. The coach-athlete relationship forms the basis for successful coaching. The aim and focus of the coach-athlete relationship is to improve the physical, social and psychological abilities of the athletes (Jowett and Carpenter, 2015).

Coaches are persons who play an important role in the development of sports, who are responsible for the training and improving of athletes who form the basic building blocks of sports (Sevim, Tuncel, Erol and Sunay, 2001: 16). The coaches who have a direct relationship with the athletes during the long training period strive to improve the mental, emotional and social capacities of the athletes and allow them to reach their highest possible performance levels (Sevim, 2002: 329; Konter, 1996: 102). Jowett and Cockerill (2003), states that positive relationships which will be established between coaches and athletes whose main components will be mutual trust, respect, faith, support, cooperation, communication, (Jowett and Poczwadowski, 2007) is important for both the psycho-social and physical development of athletes. Jowett and Cockerill (2002) made the definition of coach-athlete relationship as social state where the feelings, thoughts and behaviors of the coach and the athlete was connected to each other with the link of causality. The coach-athlete relationship is one of the factors affecting the motivation of the athletes (Jowett, 2017) and the athletes' performance which are shaped by the personal feelings, thoughts and behaviors between the coach and the athlete (Mageau and Vallerand, 2003). In addition, the coach is also important in terms of being a source of help in dealing with the emotional crises that the athlete will experience in difficult situations such as injury and disqualification from important competitions (Jowett and Cockerill, 2002; Jowett, 2005).

Jowett and Ntoumanis, (2004), developed the 3 Cs conceptual model that measures the quality of the relationship between coach and athlete with the dimensions of closeness, commitment and complementarity. According to the model, the closeness defines the emotional aspect of the relationship. It is an expression of positive emotions such as trust, respect and appreciation, and is a sign of positive interpersonal and emotional relationship. Commitment involves the cognitive aspect of the relationship between the coach and the athlete. It reflects the intention to continue the sportive partnership mutually. The complementarity represents the level of interaction and cooperation between the coach and the athlete. It reflects the motivation of commitment to interpersonal behavior and includes behavioral characteristics such as being sensitive, friendly, relaxed and willing (Jowett, 2005).

In addition to the coach-athlete relationship, another psychological element that affects the performance of athletes is anxiety. Anxiety is a feeling that is accepted as normal in low levels when it is experienced in the daily life of every human being. Spielberger (1972) points out two types of anxiety which are trait and state anxiety respectively. Trait anxiety is the tendency of the individual to experience anxiety (Öner and Le Compte, 1985). In such situation, the person acts as if there is a threat at all times and the situation of being anxious becomes a personality trait in the individual. State anxiety is the real and temporary concern experienced in presence or proximity of any danger (Spielberger, 1972). This situation is

disappeared as a result of the disappearance of danger or threat (Öner and Le Compte; 1985, Özgüven, 1999: 340).

Spielberg explained the characteristics of state anxiety as follows:

- State anxiety arises when an individual perceives, and interprets the situation which he/she experiences as dangerous or threatening.
- This situation creates an unpleasant, undesirable affective situation.
- This situation is understandable, noticeable, sensible and perceptible.
- In this process, consciousness is open, alert and aware. In the case of state anxiety, physical reactions such as sweating, tremors, flushing and yellowing are occurred as a result of impulses formed in the nervous system. This situation is an indication of the discomfort, restlessness and tension feelings experienced by the individual (Köknel, 1998: 122).

Martens et al. emphasized three dimensions of state competition anxiety. The first one is the physical state anxiety; expresses the physiological and emotional aspect of anxiety. It causes some physiological symptoms such as increased heart rate, shortness of breath, muscle tension caused by direct stimulation. Cognitive state anxiety; is a mental component of anxiety and results from negative expectations about success or negative self-assessment. Self Confidence is the component that includes the change in self-confidence of the athlete due to the change in the state of physical and cognitive anxiety (Martens, Vealey and Burton, 1990).

Anxiety level can affect athletic performance. A high level of anxiety is required to achieve high performance. Above or below this level may adversely affect the performance (Başer, 1998: 263). Athletes may experience different levels of anxiety before and during the competition. For this reason, many athletes may not be able recreate the performance they had provided in training at competitions where a higher level of stress and pressure is present. One of the reasons for the occurrence of this situation is the increment of the level of anxiety of the athlete (Baser, 1986; Beck and Emery, 2006; Tavacioglu, 1999).

One of the most important factors to help the athlete to cope with the high level of anxiety experienced by the athlete is the coach. Coach is the person who contributes to physical, mental, emotional and social development of athletes. The coach recognizes his/her athlete and tries to ensure that he/she reaches the appropriate anxiety level before the competition (Konter, 1996: 102). In doing so, he tries to develop a positive and high-level coach-athlete relationship with the athletes, thus helping the athletes to reduce their anxiety level (Baker, Cote and Hawes, 2000).

Coaching styles, which can develop positive relationships with athletes and increase cooperation and team compliance, significantly reduce anxiety levels in athletes (Smith, Smoll and Barnett 1995). It is thought that knowledge of the effect of the positive relationship between the coach and the athlete in reducing the state anxiety level in athletes may aid the development of more successful coaching methods.

The aim of this study is to investigate the effect of coach-athlete relationship on state anxiety levels of athletes. The following sub-problems have been utilized in order to provide detailed findings with regard to this purpose.

1. Does the relationship level scores of the athletes differ with gender?
2. Do the athletes' level of relationship with their coaches differ significantly according to whether the sport is individual or team sport?

3. Are there any significant differences between the state anxiety level scores of the athletes according to their gender?
4. Does the state anxiety level of the athletes differ significantly according to whether the sport is individual or team sport?
5. Is there a significant relationship between the relationship level scores of the athletes' coaches and their state anxiety levels?
6. Does the coach-athlete relationship significantly predict the state anxiety level of the athletes?

## **Method**

### **Research Universe and Sample**

The research universe of this study is athletes that compete in American Football Super League of Universities in 2017-2018 academic year and athletes that participated Turkish University Students Taekwondo Championships held at Çanakkale province in the extent of academic activities of the academic year 2017-1-2018. The sample of the study consists of a total of 420 athletes from both sports branches, out of which the total number of athletes in the taekwondo were 136 males and 107 females and 177 all male American football players.

### **Data Collection Tools**

Survey technique was used as data collection technique. Participants participated in the study before the competition was filled the coach-athlete relationship survey and Spielberger state-trait anxiety survey.

### **The Coach-Athlete Relationship Inventory CART-Q**

“The Coach-Athlete Relationship Inventory” which was adapted in Turkish by Altintas, Kazak Cetinkalp and Asci (2012). was developed by Jowett and Ntoumanis (2004) There are two different forms of inventory which measure mutual relations as coach-sportsman and athlete-coach. In this research, the athletes-coach relationship form, in which the athletes scored their relationships with their coaches, was used. The 11-item form measures athletes-coach relationship in three sub-dimensions: closeness, commitment and complementarity. The items of the inventory are scored between 1 and 7 as strongly disagree and strongly agree. The internal consistency coefficients of the inventory are 0.90 in the closeness and commitment sub-dimensions, and 0.82 in the complementarity sub-dimension. In this study, the internal consistency values of the sub-dimensions of the inventory were found to be 0.89 in the closeness sub-dimension, 0.87 in the sub-dimension of commitment, and 0.74 in the complementarity sub-dimension.

### **Spielberger State-Trait Anxiety Inventory (STAI)**

The inventory developed by Spielberger, Gorsuch, and Lushene (1970) was translated into Turkish by Öner and Le Compe (1976) and reliability studies were conducted. The inventory has two scales that measure anxiety as state and continuous. “Trait Anxiety Scale” refers to how the individual feels himself/herself in general, regardless of the circumstances of the current time. The “State Anxiety Scale” is intended to determine how individuals feel in a particular situation and under certain conditions. State anxiety scale of inventory was used in this study. In the State Anxiety Scale, there are a total of 20 expressions that are directly and

inverted. Reversed expressions are items (1, 2, 5, 8, 10, 11, 15, 16, 19 and 20). Scoring is calculated as the total score of direct and reversed expressions.

Scoring on a Likert-type scale consists of (1) no, (2) a little, (3) multiple, and (4) entirely options according to the severity of the feelings and behaviors experienced.

The coefficient of alpha correlation of the scale was between 0.94 and 0.96, the coefficient of item analysis was between 0.42 and 0.85, and the re-test reliability coefficients ranged from 0.26 to 0.68 (Öner, Le Compte, 1985). In this study, reliability coefficient of the scale was calculated as 0.89.

### Analysis of Data

In the data analysis stage, it was concluded that the data were not normally distributed according to normality test and non-parametric analyzes were performed. Then, in order to determine whether there is a significant difference between the relationship level of athletes with their coaches according to the gender and the type of sports being performed individually or team sports, and whether the athletes' anxiety levels show a significant difference according to the gender and the type of sport that is performed is the individual or team sports Whitney U test was performed. Spearman correlation coefficient analysis was used to determine the relationship between athletes and their coaches and their anxiety levels, and multiple regression analysis was used to predict the effect of the coach-athlete relationship on athletes' anxiety levels.

### Findings and Discussion

The results of the Mann-Whitney U test to determine the difference between the coach-athlete relationship according to gender are provided in Table 1.

**Table 1.** Mann Whitney U test results of coach-athlete relationship level according to gender

Closeness				
subscale	n	Average	U	<i>p</i>
Male	313	216,38	18585,000	,070
Female	107	193,31		
Adherence				
Sub scale	n	Average	U	<i>p</i>
Male	313	213,86	17796,000	,322
Female	107	200,68		
Sub scale	n	Average	U	<i>p</i>
Male	313	217,37	18895,000	,043
Female	107	190,41		

The Mann-Whitney U test was used to determine whether there was a significant difference between the coach and athlete relation scores of the athletes according to the gender, and while there was no significant difference in the closeness and commitment sub-dimension, on the other hand according to the closeness ( $U = 18585,0$ ;  $p > 0.05$ ); adherence ( $U = 17796,0$ ;  $p > 0.05$ ) complementarity ( $U = 18895,0$ ;  $p < 0.05$ ) a statistically significant difference in favor of male athletes has been determined . According to aforementioned findings, it is understood that the relationship level of the men with their coaches is higher in the complementarity sub-dimension. In a study that examined the factors affecting the coach-athlete relationship conducted by Yücel (2010) on athletes performed wrestling, similar results were obtained with this research according to the differences in the sub-dimensions of the scales used in this study. In the study statistically differences among gender groups were found in coach-athlete relationship with respect to work in harmony, closeness and trust sub scales. It is found that female athletes are more compatible with their coaches than male athletes. Nevertheless, there was no significant difference in terms of mutual understanding and mutual communication subscale.

The results of the Mann Whitney U test to determine the difference between the level of relationship between the coach and the athletes according to the type of sports are provided in Table 2.

**Table 2.** Mann Whitney U test results regarding the coach-athlete relationship according to type of sport performed (individual, team sport)

Closeness				
Sub-dimension	n	Average	U	p
Taekwondo	243	212,22	21088,500	,717
American football	177	208,14		

Sub dimension	n	Average	U	p
Taekwondo	243	215,15	20376,500	,347
American Football	177	204,12		

Sub dimension	n	Average	U	p
Taekwondo	243	201,14	23781,000	,059
American Football	177	223,36		

As a result of the Mann-Whitney U test performed to determine whether the coach-athlete relationship level scores differed significantly according to the type of sport (individual, team sport), it was found that there were no statistically significant differences in the three sub-dimensions of the coach-athlete relationship inventory. Closeness sub-dimension ( $U = 21088,500$ ;  $p > 0.05$ ), commitment sub-dimension ( $U = 20376,500$ ;  $p > 0.05$ ), complementarity sub-dimension ( $U = 23781,000$ ;  $p > 0.05$ ). Sinnott (2015) concluded in his study that the type of sport (individual, team sport) did not have an effect on the level of coach-athlete relationship. It is thought that the difference between the results of our study and



aforementioned studies is aroused as result of difference between the methods used in the studies and the separate evaluation of the inventory of the coach-athlete relationship in this study in which the three sub-dimensions were evaluated separately.

The results of Mann Whitney U test to determine the difference between the state anxiety level mean scores of the athletes according to gender are provided in Table 3.

**Table 3.** Mann Whitney U test results of state anxiety levels of athletes according to gender

		Average			
	Gender	n	rank	U	p
State	Male	107	220,77	15646,500	0,310
Anxiety level	Female	313	206,99		

In results obtained from Mann Whitney U test which was used to determine whether the state anxiety level scores of the athletes differed significantly according to gender, he found that there was no significant difference between the state anxiety level average scores of female and male athletes ( $U = 15646,500$ ;  $p > 0,05$ ). Engür (2002) had reached a similar conclusion in his study under the title of “Effect of achievement motivation on state anxiety level in elite athletes” and stated that there was no statistical difference between female and male athletes in terms of the state anxiety average scores. Contrary to aforementioned findings in the study of Bayar Koruç (2009) it is reported that the pre-competition cognitive and bodily anxiety averages of young female athletes were higher than the young male athletes. Başaran, Taşkın, Sanioğlu and Taşkın (2009) found that the state anxiety levels of male athletes were higher than female athletes in their study of investigation of state and constant anxiety levels of athletes according to various parameters. Hacıcaferoğlu, Seçer and Hacıcaferoğlu (2015) found that female athletes' pre-competition state anxiety levels were higher than male athletes in their study on the state anxiety levels of athletes in the folk dances branch. It is thought that the sports branch has an effect on the differentiation of the state anxiety levels of the athletes according to gender. Bozkus et al. (2013) underlined that some of the studies found significant difference between anxiety levels and gender but some others found no significant differences.

The results of Mann Whitney U test conducted for the determination of whether the state anxiety level scores of the athletes differ according to the type of sports performed are shown in Table 4.

**Table 4.** Mann Whitney U test results of state anxiety levels of athletes according to the type of sport (individual sport, team sport)

	Type of sport	n	Average Rank.	U	p
State Anxiety level	Taekwondo	243	215,28	20344,000	0,344
	American Football	177	203,94		

According to the results of the Mann Whitney U test conducted among the independent groups in order to determine whether there is significant difference in state anxiety levels of athletes according to the type of sport (individual or team sports) it was found that there was no significant difference between the state anxiety levels of the athletes according to the type of sports performed ( $U= 20344,000;p>0,05$ ). Contrary to our findings, in the study conducted by Civan, Arıcı, Görücü and Özdemir (2010) where state anxiety levels score averages of athletes participated in individual, team and racquet sports before, during and after competitions, a significant difference was found between the state anxiety scores averages of athletes and sport type. According to this result, while the group of individual sport athletes are the group with the highest mean anxiety score; the state anxiety scores of racquet sports and team sports athletes were lower than those of the individual sports group. In the study conducted by Engür (2002), which the state anxiety average scores of the athletes participated in team sports and individual sports were compared, it was concluded that the state anxiety average scores of the athletes participated in team sport were higher.

The results of the Spearman correlation coefficient analysis performed to determine the relationship between the state anxiety level scores of the athletes and the relationship level scores with their coaches are shown in Table 5.

**Table 5.** Correlation of relationship between coach-athlete relationship and state anxiety levels of athletes

	Closeness	Adherence	Complementarity	State Anxiety
Closeness	1			
Adherence	,879**	1		
Complementarity	,819**	,814**	1	
State Anxiety	-,632**	-,653**	-,621**	1

\*\*p < 0.01

When Table 5 which provides the relationship between the coach-athlete relationship and the state anxiety levels of the athletes, the relationship between the state anxiety levels of the athletes and their coaches according to the sub-dimension of the coach-sportsmen inventory ( $r = -, 632$ ), in the sub-dimension of engagement ( $r = -, 653$ ), the complementarity sub-dimension ( $r = -, 621$ ). According to the Spearman correlation coefficient analysis, there is a moderate and significant relationship between the mean scores of the state anxiety level of the athletes and the mean scores of the sub-dimensions of affinity, adherence and complementarity of the coach-athlete inventory. Accordingly, it can be seen that when the relationship levels of the athletes are increased, the state anxiety levels decrease.

The results of the multiple regression analysis of the scores of the coach-athlete relationship inventory for predicting the state anxiety level scores are shown in Table 6.

**Table 6.** The coach-athlete relationship's prediction of the state anxiety level in athletes.

	B	SH	$\beta$	t	p
Constant	78,725	2,736		28,776	,000
Closeness	,006	,194	,003	,033	,974
Adherence	-,885	,180	-,411	-4,915	,000
Complementarity	-,655	,168	-,271	-3,901	,000

R=,648 R<sup>2</sup>=,420 p=0,000 F=100,257

As a result of the multiple regression analysis conducted to predict the state anxiety level scores of the coach-athlete relation scores, and when the t-test results related to significance of relationship between the regression coefficients, it can be observed that athlete-coach relationship level inventory is a significant explanatory of the state anxiety level in the adherence and complementarity sub-dimensions. There was no significant relationship in the closeness sub-dimension. In line with these results, it can be seen that the coach-athlete relationship inventory explains %42 of the state anxiety level variance with two of the three sub-dimensions.

## Conclusion

In this part of the study, where the effect of the coach-athlete relationship on the state anxiety levels of athletes were investigated, the sub-problems created in order to reach more detailed findings related to the explanation of the main problem were answered. While level of coach-athlete relationship with respect to gender does not show a statistically significant difference according to the subordinate dimension of the coach-athlete relationship inventory; a significant difference was found in favor of the male athletes in the sub-dimensions of the closeness and complementarity of the inventory. While no significant differences are observed in the level of coach athlete relationship, level in coach athlete relationship level according to the type of sport (individual, team sport), in the closeness and adherence sub-dimensions; on the other hand, in the sub-dimension of complementarity, a significant difference was found in favor of American football athletes.

There was no statistically significant difference between the state anxiety levels of the athletes and gender and the type of sports performed were found. There was a statistically significant middle level negative correlation between the coach-athlete relationship and the state anxiety levels of the athletes. There is no significant effect is observed in closeness sub dimension. It was determined that the adherence and complementarity sub-dimensions of the coach-athlete relationship inventory were significant predictors of the state anxiety level in the athletes. As a result of the research, similar findings are obtained with the research conducted by Baker, Cote and Hawes (2000) with the topic of "the relationship between coach behavior and sport anxiety" where they stated the positive and high level coach-athlete relationship have an

effective role in reducing the level of anxiety among athletes, on the other hand, the negative relations between the coach and the athlete increases the state anxiety levels of the athletes.

### **Recommendations**

For athletic success and performance, athletes have psychological needs as well as physiological needs. Decreasing the state anxiety level of athletes before the competition and keep state anxiety level at the optimal level is one of this need. According to the results of this study, high level and positive coach-athlete relations are effective in reducing the state anxiety levels of athletes. In this respect, coaches are advised to consider the importance of the coach-athlete relationship in reducing the state anxiety levels of athletes. In order to develop a more positive and high level of coach-athlete relationship between the parties, the coaches should have more affirmative and positive relationships with the athletes within the framework of mutual respect, be more patient with the athletes and try to understand them better through empathy, especially in team sports, coaches are advised to consider there may be different state anxiety levels observed in every other athlete thus take into account the individual differences between athletes, to deal with each athlete separately if necessary, to motivate them by supporting athletes, to be more relevant and accessible to them. Athletes are also advised to try to build constructive relationships with their coaches within the framework of respect.

It is also recommended that this study is conducted with different sample groups and on professional athletes.

### **Conflict of Interest**

The authors have not declared any conflicts of interest.

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