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Research Article

A Qualitative Study on E-Sports Players' Leadership Perceptions Regarding Their Team Coaches

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ABSTRACT

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Having emerged following the professionalization of digital gaming, esports has created its ecosystem and become a large-scale industry itself. Teams involved in this industry experience a social environment just like in other organizational structures. As e-sports is a relatively newer branch when compared to other sports branches, leadership in e-sports is not a commonly studied topic in the literature. Therefore, the aim of this study is to explore leadership perceptions of e-sports players in a comprehensive way. A team coach is often considered the leader in e-sports. The study was designed according to the principles of phenomenology, which is a qualitative research method. The semi-structured interview form developed by the researchers was used as the data collection instrument. The interviews were conducted with a group of e-sports players who met the predetermined criteria for participation in the study. The data was analyzed by using the content analysis method. First, the codes were determined, and later, the categories, and finally, the themes were identified out of these categories. Accordingly, it was found that leadership in e-sports is perceived under five themes: physical characteristics, personality traits, professional qualifications, technical skills, and management skills. Finally, it can be concluded that leadership in e-sports is quite similar to leadership in other traditional sports in many ways. However, the study showed that it has unique characteristics that need studying within the framework of the digital age and technological advancements.

INTRODUCTION

Although being a digital gamer naturally requires taking individual actions during the games, some players had unofficially assumed the role of a leader when teams started to get involved in tournaments. E-sports has developed out of the digital game sector and has been professionalized in today's world. Although the sector primarily involves individual players, it often witnesses fierce competition between teams rather than individuals (even in some individual games, players win points for their teams). Thus, a social environment with the presence of teams gives us an opportunity to associate this sport with leadership.

E-sports refers to an activity in which mostly professional players compete in competitive games in a virtual game environment via digital games on the internet by displaying their mental and physical abilities (Wagner, 2006). Dating back to the late 1990s, esports started to become widespread in the early 2000s and was considered a significant career option as of 2010s (Mustafaoğlu, 2018). Just like in traditional sports, e-sports has also a unique organizational structure (Kabadayı, 2020).

There are various definitions of e-sports in the literature. Breaslau (2012) defines e-sports as competition-based games that have evolved in line with the new world order and become an industry, following traditional sports. According to Keach (2015), e-sports is the ecosystem in which individuals can earn high amounts of money, lucrative sponsorship agreements are signed, transform into a career path rather than a game for talented individuals, and video games become professional. If we need to make a synthesis definition of e-sports based on the previous definitions, it can be said that "it is a branch of sports that covers all components of traditional sports and competes in digital games through technological equipment." Adams et al. (2019) state that all of the definitions made by both theorists and practitioners are descriptive but add that e-sports can be defined in shorthand as "the organization of playing digital games competitively."

Although e-sports are similar to traditional sports in some features, they also have some distinctive features. It can be said that the concept of virtuality is the most important one of these features. The performances of e-sports players turn into output in a virtual environment. In order for this activity in the virtual environment to be accepted within the scope of e-sports, it must be competitive and framed by binding rules (Seo, 2013). Argan and Akın (2007) list the basic features of e-sports as follows:

- o Can be played in all virtual environments such as computers,
- o Requires large financial resources in terms of facilities and equipment,

- It is possible to participate in this sport all over the world,
- o Includes feelings of competition and winning,
- o Having game-specific tools and equipment,
- o Requires mental and physical effort.

When we look at the definitions and characteristics of e-sports, it can be seen that it is at a level that can sustain its own ecosystem from a professional perspective. When we consider the fact that e-sports are a social activity as well as a professional one, it can be concluded that these organizational structures involve a sort of leadership process.

Leadership has been studied in a lot of research in social sciences and many theories have been developed to explain this concept. According to the related literature, the basic approaches to explain leadership include a theory claiming that leadership is related to personality traits (traits), another theory suggesting that behaviors are more important than personality traits (behavior), and still another theory highlighting that behaviors determine leadership behaviors according to existing conditions (situational) (Northouse, 2010). In modern times, the literature is getting more and more comprehensive thanks to some new theories proposed by researchers. In these theories, leadership is associated with certain concepts such as mission, vision, decision-making ability, culture, personality, communication, authority, persuasion, influencing, ethics, conflict, and stress management (Güney, 2015).

Looking at the main definitions from the mid to late 1900s; According to Hemphill and Coons (1957), leadership is the behavior of an individual in directing the activities of a group to a common goal. Katz and Kahn (1978) define leadership as the level of obedience beyond mechanical obedience to the routine directives of the organization. Rauch and Behling (1984) provide an explanation for leadership as the process of influencing the activities of an organized group to achieve goals. According to Richards and Engle (1986), leadership means putting forward a vision, giving life to values, and creating an environment where things can be achieved. Jacobs and Jaques (1990) define leadership as the process of providing a purpose to the joint effort and stimulating the will to achieve that purpose. According to Schein (1992), the ability to go beyond the existing culture to initiate more adaptive evolutionary changes is defined as leadership. Drath and Palus (1994) see leadership as the process of giving meaning to the things people do together and ensuring that they understand and commit to it. According to House et al. (1999), leadership is a person's ability to influence and motivate other people to contribute to the success of the organization.

When we look at the definitions of leadership made in the modern period, it is seen that diversity continues. Hedlund et al. (2003), leadership is a complex performance field that requires the ability to solve organizational problems and in which followers voluntarily commit to the vision put forward by the leader. According to Gürüz and Gürel (2009), a leader is a person who undertakes the mission of cognitively, emotionally, and operationally intensifying the members of a certain community towards a certain purpose and target. All behaviors in line with this mission are called leadership. Northouse (2010) defines leadership as the process of directing people to certain goals based on influence. Common points derived from these definitions: Leadership is a process that involves influencing, occurs within the group, and has common goals.

Bolden (2004) argues that the difficulty of defining leadership arises from the fact that it is a complex process that touches many people in organizational and social processes. This complex process is an influence process that enables people to move towards group goals through motivation, not through coercion. For this reason, which definition will be accepted varies according to the predispositions of individuals, conditions of organizations, and beliefs. When the definitions of leadership are examined, as a result; even today, the question of when a person emerges as a leader and under what abilities and conditions, he is considered a leader remains a mysterious issue. It is understood from this that there is no single leadership model that is valid always, everywhere, and under all conditions.

Leadership is an interesting topic to study in the field of sports sciences; especially in terms of leadership behaviors of both coaches and administrators. Many studies have focused on leadership orientations, skills, perceptions, and typologies of individuals in various sports branches (O'Boyle et al., 2015). Despite the ongoing discussions regarding whether e-sports is really a sport or not, this branch has a federation in more than 50 countries and was determined as an ancillary event in the 2024 Summer Olympics, which has attracted the attention of researchers in the field of sports sciences (Kabadayı, 2020). In this respect, leadership allows researchers to examine sports and e-sports concepts together.

One of the groundbreaking studies on leadership in sports is Chelladurai's (1990) Three-dimensional Leadership Model in Sports. According to this theory, there are three dimensions affecting productivity of leadership in sports organizations. One of these dimensions is antecedents, which include situational characteristics, leader's characteristics and members' characteristics. The second dimension, which emerges due to the effects of the above-mentioned characteristics, is leader behaviors. The three subdimensions of the second dimension are required behaviors imposed by certain factors such as rules and organizational

culture, actual behaviors of leaders, and behaviors preferred by members. These behaviors lead to the third dimension, which is consequences. This dimension is examined under two subdimensions: performance and satisfaction of members. Chelladurai's theory is taken as the theoretical background of the present study so that leadership in e-sports can be examined.

Some basic components are necessary to carry out e-sports activities. Among these components are game developers, matches and tournaments, players, teams, referees, game consoles, and other equipment. Audiences, broadcasting platforms, and sponsors are the secondary components of such activities (Kilci, 2019). Many factors interact in such a complex structure; therefore, it seems impossible for e-sports players to deal with every issue by themselves. Mental, physical, technical, and strategic support of team coaches are especially crucial so that players can succeed in competitive games. At this point, it is possible to foresee the significance of a guiding leader.

The literature review revealed only a few studies in which e-sports and leadership concepts were examined together. The first study on this issue focused on the development of leadership through e-sports. Nuangjumnong (2016) states that roles in digital games affect real social life and might improve leadership skills. Another study conducted by Falkhental and Byrne (2020) deals with distributed leadership in university e-sports teams. The study explained how distributed leadership style, hierarchy, and reliability help the distribution of power within teams. Similarly, Keçeci and Çelik (2021) in their study examined leadership in e-sports organizations within a theoretical framework. Therefore, there is a growing need to conduct research on leadership in e-sports due to the limited number of available studies in the current literature.

Due to some prevailing vagueness regarding leadership in e-sports, there is a possibility that it differs from the nature of leadership in traditional sports. First, e-sports matches take place in a virtual environment requiring an interaction at the cyber level, although players often come together in a physical environment. In this regard, the aim of the study is to explore and explain leadership profiles and processes as perceived by e-sports players during e-sports events.

Due to the fact that many practices today have been virtualized, this development is quite likely to affect sports as well. Introduction of virtual reality glasses into people's lives, the emergence of crypto money stocks, new experiences through augmented reality images, virtual visits to museums, business meetings held in virtual environments, online certificate programs, internet websites publishing video content, and applications such as metaverse that bear characteristics of a virtual environment have started to play an important role in people's

lives. Just like the above-mentioned phenomenon, it is not surprising that e-sports is a digitalized form of sports. When these developments are evaluated in relation to leadership, it is expected that leadership has been subject to certain changes during the digital age, just like it evolved according to different conditions of the classical period, neo-classical period, and the modern period. In this respect, it is essential to examine how the leadership paradigm will evolve in e-sports according to the conditions of the new era in terms of sports management for both the branch itself and sports in general.

METHODS

This study was designed according to the qualitative methodology in order to define leadership as perceived by e-sports players of their coaches. Since this branch is one of the recent branches in the field, leadership in e-sports still needs to be explored more in detail although it is an easily observable phenomenon. Yıldırım and Şimşek (2018) define phenomenology as a qualitative research design employed in order to explain situations which one is aware of its presence but lacks detailed information. Therefore, the present study was designed according to the principles of phenomenology design.

Research Model

In terms of the researchers' stance, this research is handled on the basis of the constructivism-interpretivism paradigm. This approach is thought to be a more suitable paradigm for social sciences due to the human factor. According to Ponterotto (2005), when the issue is considered from an ontological perspective, the constructivism-interpretivism approach emphasizes that reality is subjective. From an epistemological perspective, it is accepted that reality is socially constructed in the relationship between participants and the researcher. Thus, the dynamic interaction during the data collection phase of the research allowed us to capture and describe the lived experience of the participants. The fact that the researcher who collected the data was an e-sports player also contributed to this situation. However, since none of the qualitative coders -except the researcher who collected the data-during the data analysis phase, were experts in the field of e-sports, it was aimed to reach the findings without bias. From an axiological perspective, it is accepted that the results of this research cannot be completely free of biases according to the constructivism-interpretivism paradigm in any case. The rhetorical structure and methodology of the research were designed and implemented according to this approach.

According to Hsieh and Shannon (2005), when a phenomenon is addressed scientifically for the first time, the categories obtained through qualitative analysis are derived directly from textual data. This situation requires an inductive approach in science. Therefore, the findings of the research are discussed with an inductive thought.

Participants

The population of the study is professional e-sports players playing for e-sports teams in Türkiye. The study group consists of 21 e-sports players who voluntarily participated in the study. The participants were determined by using the criterion sampling method, which is a non-probability sampling. Criterion sampling (purposive sampling) is defined as selecting individuals who meet predetermined criteria for participation in a study (Gitmez, 2020). Accordingly, the following criteria were determined in the present study: actively playing in team sports and having participated in at least one national tournament. The demographic information about these 21 participants who fulfilled these criteria is presented in Table 1 below.

The ethical principles of the World Medical Association's Declaration of Helsinki (https-1) were taken into consideration regarding the participants' participation in the research. Accordingly, Eskisehir Technical University Ethics Committee permission was obtained to conduct the research (16/10/2023, 20/4). The voluntary participation form, which was among the documents submitted to the ethics committee, was read by the participants before data collection. Interviews for data collection were initiated with both verbal and written permission from the participants and they were reminded that they could leave the study at any time if they deemed it necessary.

Table 1Demographic Characteristics of the Participants

Demographic Categories	The Data Groups	Participants Frequencies
Age	Mean = 23,2	It ranges between 19 and 32 years
Gender	Male	17
	Female	4
Games	Counter-Strike: Global Offensive (CS:GO)	6
	Valorant	4
	League of Legends (LoL)	6
	FIFA 22 (Pro Clubs mode)	5
Types of games	First-Person Shooter (FPS)	10
	Multiplayer Online Battle Arena (MOBA)	6
	Sport	5
Game platform	Computer	16
	PlayStation	4
	Xbox	1
Digital gaming experience	Mean = 13,4	It ranges between 10 and 24 years
E-sports experience	Mean = 3,3	It ranges between 1 and 7 years

Procedures

The data collection instrument used in the study was a semi-structured interview form, which included eight main questions and some drill questions for each main question. The first question was not an open-ended one since it only asked about the status of the leader of the team. The aim of this question is to confirm the assumption that the leader in an e-sports team is a team coach. The other questions in the form except the last one were based on different dimensions of Chelladurai's (1990) theory; the second and third questions on "Characteristics" dimension, the fourth and fifth ones on "Leader's Behavior" dimension, and sixth and seventh questions on "Consequences Involving Performance and Pleasure" dimension. The last question aimed to get further opinions of the participants so that the researchers could access all the information that was beyond their knowledge. The questions were based on "leadership in sports" literature. The questions derived from this literature review were prepared by taking into consideration the suggestions made by Creswell (2007) for successful interview questions to be used in phenomenology design. The researcher also asked for expert opinion in order to evaluate to what extent the interview questions were suitable for collecting appropriate data for the purposes of the study. The form was finalized by taking into consideration the feedback received from the experts, who were an academician conducting studies on leadership, another academician experienced and knowledgeable about qualitative studies, and a teacher of the Turkish language.

The semi-structured interviews were conducted face-to-face between November 2nd, 2021, and April 2nd, 2022. The duration of the interviews ranged between 54 minutes and 67 minutes. The means for the duration of the interviews was calculated as 60.5 minutes and the standard deviation as 2.70 ($X = 60.5 \pm 2.70$). The interviews were audio recorded, and later, the recordings were transcribed in order to obtain raw data.

Data Analysis

Strauss and Corbin (1990) propose two types of data analysis for qualitative analyses: descriptive analysis and content analysis. In the descriptive analysis method, data are summarized and interpreted according to predetermined criteria, while content analysis aims to identify concepts that might account for collected data. It is clear that content analysis is subject to more in-depth data processing when compared to descriptive analysis. Therefore, content analysis was thought to be more suitable for the present study since leadership in esports is still a concept that needs to be defined more comprehensively. The following procedures were completed in turn as the steps of content analysis in the study:

- 1) Coding the data;
- 2) Categorizing the data;
- 3) Outlining themes from the data;
- 4) Organizing codes, categories and themes;
- 5) Defining the findings.

Validity and Reliability

Guba et.al (2000) suggest that there are some strategies to enhance quality in qualitative research; however, they emphasize that these strategies might be applied through alternative concepts that are more suitable for the nature of a qualitative study rather than within validity and reliability concepts. These concepts are called persuasiveness, transferability, consistency and confirmability.

Persuasiveness (internal validity) was achieved by having long-lasting interactions with the participants and asking them to confirm their opinions stated during the interviews, which met the criteria of "accurate representation of reality" through research findings. This ensures that there is no missing or incorrect data.

In order to ensure transferability (external validity), some of the raw data obtained from the interviews were presented to readers in the "Findings" section of the study without making any changes. Thus, readers are given the opportunity to comprehend and describe the data clearly, which meets the criteria of "evaluation of results" in qualitative studies.

As for the consistency (internal reliability) of the study, all the interviews were conducted by the same researcher. He was careful with using the same tone of voice and intonation while asking the questions to each participant and not directing them towards a specific opinion. As a result, the "consistency" criterion was achieved as an important criterion for qualitative research.

In order to meet confirmability (external reliability) criteria, the researchers sent the raw data to a group of experts qualified in leadership and qualitative research. By doing so, the researchers aimed to meet the criterion of "being objective and unbiased" by obtaining others' opinions in addition to theirs. The qualitative coders of the study were two academicians who conducted this study: an academician who is an expert in leadership and another academician who is an expert in qualitative research. They continued to examine and code the data and identify themes until they reached an agreement. At this point, the researchers made use of the formula developed by Miles and Huberman (1994) for reliability in qualitative data analysis. According to this formula, reliability is calculated as *reliability* =

consensus / (consensus + disagreement) x 100. An analysis revealing a coefficient higher than 0.70 is accepted as reliable. As a result of the opinions of all coders (4) in this study, the coefficients calculated for all interviews (21) were higher than 0.70 for each theme. The coefficients are as follows: Physical Characteristics = 0,82; Personality Traits = 0,78; Professional Qualifications = 0,84; Technical Skills = 0,80; Management Skills = 0,78.

RESULTS

The tables below display the codes, the categories, and the themes obtained from the qualitative data. The raw data are presented to readers under each related table without making any changes. The participants were anonymized so as not to reveal their real names. The following codes were used for the participants in the analyses: P1 - P2 - P3 - P4 - P5 - P6 - P7 - P8 - P9 - P10 - P11 - P12 - P13 - P14 - P15 - P16 - P17 - P18 - P19 - P20 - P21.

Table 2Categories and Codes for the Theme "Physical Characteristics"

Theme	Categories	Codes
Physical characteristics	Physical appearance	Having an attractive look
	Age	Being older than other players

Table 2 reveals that two codes were prominent in the outlining of the theme "physical characteristics," which accumulated under the categories of physical appearance and age. Some of the raw data used to determine the codes are presented below:

Age

"Another characteristic, I mean he is a person who is respected more because he is, in fact, older" (P1)

"Generally, leader is older than players. So, they have more life experience than players. For instance, some players perceive leadership intuitively. It is something we can't explain through data but it happens like that. Leader has this experience earlier. A 5-year difference in age means 2000-5000 more games in e-sports. That number of games make a difference in experience" (P2)

Physical Appearance

"But some teams play only to be noticed by giving game scores a secondary importance. The leaders of these teams might be advertising face of the team. Of course, in such situations, physical appearance also matters." (P6)

"First of all, he is a person who is careful about his clothes. It is said that physical appearance is important before you meet someone. Physical appearance is the first thing people look at for a positive first impression. I find my coach successful in that." (P14) "For me, one should be a good example in every way if he wants to be the leader in an organization. We can all include his physical appearance, tone of voice, language use, educational background, being fair and making correct decisions, etc." (P15)

Table 3Categories and Codes for the Theme "Personality Traits"

Theme	Categories	Codes
Personality traits	Communication	Good command of language Being honest Talking with a clear diction Establishing an effective communication Not being offensive Having a sense of humor Having good social relationships Having good personal relationships
	Traits	Brave Well-disciplined Revealing intense feelings Energetic Entrepreneur Strong Trustworthy Ambitious Determined Accepting mistakes Reflecting some characteristics of other gamers Keeping calm Respectable Appealing Responsible Intelligent Having unique characteristics Good observer
	Attitudes towards other players	Fair Respectful Transparent Consistent Role model Paternalist

According to Table 3, 32 codes under three categories (Communication, Traits, and Attitude towards other Players) play a role in the emergence of the theme "Personality Traits". Some of the raw data used to determine the codes are presented below;

Communication

"One reason for me to accept and support him is to promote and help him feel relaxed. What leads to this is his good management of personal relationships" (P1)

"He knows how to talk according to the person he talks to. There are 15-16 players in the team. It is so difficult to please everyone. But he is good at that. Sometimes he has to say different things to different people but he keeps the balance well. In other words, the basic answer is human relationships" (P5)

"In my opinion, the most important thing is communication skills. Even if a person with good communication skills makes a mistake, he can make correct decisions thanks to the value he gives to sharing opinions with others. There is not a strict rule stating that leaders in e-sports and leaders in life in general always think correctly. So, I believe that people who are open to different opinions and able to establish healthy communication with other people is one step ahead in life" (P7)

Traits

"Being transparent and fair is enough for me. It should be clear to everyone. Also, he needs to motivate the team. He should be energetic" (P3)

"What is important here is, of course, personality. A coach should be sincere and reliable if he wants to be not only the coach but also a leader. He should have an influence on others" (P13)

Attitudes towards Other Players

"For me, it is important for a leader to establish communication in the correct way. He should be able to explain things clearly. He should not act unjustly; he should be fair and treat people equally. He should be clever." (P4)

"Since a leader is supposed to be a role model, he should do first what he expects from the team to do. If he is hardworking, players also become hardworking. If he is lazy, players also become lazy." (P8)

"You cannot set out with a person unless you trust him. He should keep his promises and be a man of his word. If he talks to players one by one, he shouldn't tell different things to different players. I mean, he should be consistent about what he tells different people at different times." (P9)

Table 4Categories and Codes for the Theme "Professional Qualifications"

Theme	Categories	Codes
Professional qualifications	General qualifications	Well-educated A good professional background Competence in cyber technology Knowledge of traditional sports
	Branch-specific qualifications	Experience in e-sports Reputation in e-sports Keeping up with current developments Playing well Knowledge of e-sports sector

Table 4 shows that the "Professional Qualification" theme consists of nine codes under two categories: "General Competencies" and "Branch-specific Competencies". Some of the raw data used to determine the codes are presented below:

General Qualifications

"Since you say leadership in e-sports, he should be knowledgeable about this branch and sports in general. The necessity of having a good command of sports is the existence of everything in e-sports and, in fact, in traditional sports" (P15)

"This also depends on understanding the mentality of the game. Indeed, it is just software. Although we often forget during the games due to excessive excitement, the only thing we do, in fact, is to give commands to computers. Therefore, leaders should have a command of the game and computers." (P6)

Branch-Specific Qualifications

"First of all, he should have a good command of the game we are playing. FIFA Pro Clubs mode already requires multiple players, at least 11 players. He should be at least at the same level as -if possible, at a higher level than - the players" (P3)

"Since our leader is experienced in e-sports, we take advantage of his experiences. He is knowledgeable about the field. He knows how players feel comfortable and focus on the game with full motivation since he has already gone through difficult times and challenges." (P8).

"In addition, a leader should be well informed about the community involved in the games. Knowing rivals well is a better advantage than knowing your own team." (P10) "For me, knowing the people involved in this (e-sports) and having a wide network in the community are the most critical criteria. It is crucial to have a good command of the video world game. I believe that a person equipped with this knowledge can have a strong

influence on players as well. I am of the opinion that one can easily be a leader if he is both knowledgeable and talented in video games and has strong connections in the e-sports community. I believe that such a person might have a stronger influence on players." (P12)

"The competitive games in e-sports are frequently updated. So, I expect my leader to update himself frequently" (P14)

Table 5Categories and Codes for the Theme "Technical Skills"

Theme	Categories	Codes
Technical skills	Contribution to players	Improving players Keeping players informed Taking good care of players' nutrition Taking good care of players' resting Taking good care of players' physiology Taking good care of players' equipment Providing psychological support for players Foreseeing and preventing potential mistakes
	Analysis	Making a technical analysis of games Analyzing opponents
	Influence during games	Immediate interventions during games Success in assigning players
	Knowledge of game	Keeping up playing Competence in-game terminology Advanced level of game knowledge
	Contribution to the team	Discovering potential talents Preparing a periodic program Success in player selection Developing strategies for games Good choice of technical staff Providing team unity

According to Table 5, the "Technical Skills" theme was outlined from 21 codes, which accumulated under five categories: Contribution to players, influence during the game, knowledge of the game, and contribution to the game. Some of the raw data used to determine the codes are presented below:

Contribution to Players

"He shows us where we are late - such as, in making decisions or use of mouse- after analyzing how we play in the games. So, we notice our drawbacks and learn what we should do to improve ourselves." (P12)

"The couch's duty is to prepare daily, weekly, monthly, and yearly programs. To coordinate while applying these programs. The leader should do these so that the team should progress towards the same goal. He should prepare us by giving correct tactics so that we can play a good match. He should keep us physically robust. He should care about our nutrition" (P13)

Analysis

"It is necessary to determine well the areas and times when players are connected to each other. It is necessary to position yourself accordingly in the game. The person who will ensure all this is the leader. He must analyze the game requirements and the abilities of the players well and bring holistic harmony to the team." (P6)

"Since we started playing in high-level tournaments, we have started to watch the matches of our possible opponents. I say "we started" because he doesn't just watch it himself, he makes us watch it too. We conduct competitor analysis just like in other sports. In these aspects, I think the coach provides effective leadership." (P10)

Influence During Games

"He should have a strong competence in issues such as technique, tactics, selecting players and assigning roles to players, etc." (P3)

Knowledge of Games

"He should have a command of branch-related terminology. For instance, there is a term called "mid" in the game we play. If you assign a person who doesn't have any ideas about such terms as the leader of the team only because he invests some money in e-sports branch, no good will come of it." (P6)

Contribution to Team

"What I meant here is being able to continue to collaborate in the tasks. Acting in accordance with the goals of the team. For instance, I may not get on well with one of my teammates in our daily life. I might even be offended by him or her. But this should not be important during the game. No matter how much angry we are at each other, this should not affect our sense of mission. Since our leader does important things to ensure us to act together for the team, we listen to his words" (P7)

"Those whom a leader would like to work with are also important so that he can be successful. He should choose these people carefully. Both players and other people who assist the leader should be quality people" (P9)

"It is even necessary to discover potential talents, young talents beforehand so that such talents should be integrated into the team before it is too late." (P10)

Table 6Categories and Codes for the Theme "Management Skills"

Theme	Categories	Codes
Management Skills	Interaction with players	Balancing between authority and democracy Managing players' egos Providing feedback Treating everyone equally Providing motivation Increasing players' excitement Being obeyed Inspiring players
	Team Atmosphere	Providing social unity in the team Saving time for procedures related to team Acting like a bridge between players and admin Successful political management Successful stress management Successful conflict management Improving communication within the team Adopting the team
	Decision making	Making accurate decisions Explaining the reasons of the decisions made Consulting different opinions Being open to others' contributions
	External environment	Assuming spokesman role in the team Defending players' rights Lobbying at the upper administration level Ability to talk about issues other than e-sports

According to Table 6, the "Management Skills" theme was outlined from 24 codes, which accumulated under four categories: Interaction with Players, Team Atmosphere, Decision Making, and External Environment. Some of the raw data used to determine the codes are presented below:

Interaction with Players

"I think that the leader also affects the results in terms of motivation. Keeping us all together, telling what he wants to convey without hurting us, and explaining why we do what we do always affect our scores." (P3)

"Sometimes it would be nice to have some toughness. Discipline must be maintained. It may not be good if it is too soft. It is very difficult to catch the consistency in that middle point. People who can handle it, I think, can be very good leaders." (P4)

"I think it's important for the leader to treat everyone in the team fairly, to admit when he makes a mistake, to take the opinions of everyone in the team, not just by what he says." (P5)

Team Atmosphere

"I think he is guiding us in the right way. It nicely tells us what we need to do about the game and outside of the game. It acts as a bridge between the team owner and the players. I guess it is not a pleasant feeling to be between such two levels, but he fulfills this task properly. The fact that he thinks for us and speaks for us mostly eases our load." (P11)

Decision Making

"He must be able to make effective decisions. Technical, tactical, player selection, assignment, etc. The ability to decide must be strong". (P3)

"A person with strong communication skills can manage to make the right decisions, even if he is wrong, thanks to the value he attaches to exchanging ideas with other people. There is no rule that individuals who are leaders both in e-sports and in life, in general, will always think about what is best. For this reason, I think that people who are open to different opinions and can communicate healthily are one step ahead". (P7)

External Environment

"A little while ago, I talked about being able to talk to the leader about non-team issues. Although this event may seem out of the team, it can affect a match when appropriate. Because a moment you experience on an issue unrelated to e-sports increases your respect for the leader and you can think about it during the match and fight for the coach more." (P7)

"He also takes care of us in our daily life. We can spend time with him without even talking about games. We know that we are valued as e-sports players, but it makes us feel valued as human beings outside of e-sports." (P15)

DISCUSSION

According to the findings of the study, the hierarchical position accepted as the leader in e-sports is usually team coach, just like in traditional sports branches. The titles given to this position change from branch to branch, such as "technical director" or "head trainer" etc. The term preferred in e-sports is "team coach". It is acknowledged that team coaches' physical appearances, personality traits, professional qualifications, technical skills and management skills considerably affect productive leadership in e-sports teams.

Personality traits have a stronger effect than physical appearance in e-sports. There are some studies reporting that coaches' personality traits have a considerable effect on effective leadership (Chelladurai & Saleh, 1980; Smoll & Smith, 1989; Smith et al., 2013). The presence of categories related to communication and attitude toward players clearly indicates that communication between leaders and players affects the quality of the leadership process. At this point, leadership in e-sports is similar to leadership in traditional sports branches as defined by Williams and Widmeyer (1991) and Gardner et al. (1996).

The findings regarding the "professional qualification" theme showed that e-sports players want to have a leader and team coach who has improved himself both in e-sports and in general. It is possible to come across some successful trainers who do not have a bright career as players. However, e-sports does not seem to have such examples since e-sports players expect their team coach - as the leader of the team- to have a successful background as a player, play well even during coaching, and keep up with advancements in cyber technologies. Such an expectation might be a branch-specific consequence or it might be due to the common presence of Generation Z as players in e-sports. Çetin and Çelik (2022) suggest that Generation Z has the potential to think differently from prevailing traditional judgments in terms of expectations from sports.

The findings about the theme "technical skills" revealed that the team coach's contribution to e-sports players and the team prior to and after the game is perceived as significant. Since the codes and categories under this theme are some parameters that might affect sports performance, the replies of the participants are primarily performance-oriented and score-oriented at the competitive level. Team coaches, as leaders in e-sports, should have high levels of technical skills so that sportive achievement can be reached. Smoll et al. (1993), in their studies on traditional sports branches, found that a coach's technical contribution to players' improvement, player outcomes, and effective teaching is crucial for achievement in sports.

As for the findings regarding "management skills", the codes and categories are mostly related to leader's behaviors. Indeed, much research in the literature claims that behaviors are more important than personality traits. There are also studies highlighting the importance of trainer behaviors in traditional sports branches (Boardley et al., 2008; Chelladurai, 1984; Cote et al., 2010; Luthans & Avolio, 2003).

Leadership in e-sports differs from others due to its unique features. For instance, sportive performance is achieved in a digital environment. Physical attempts of e-sports players while using hardware such as a keyboard, mouse, etc., turn into a performance

outcome as a video. Therefore, team coaches should have higher levels of knowledge and competence in cyber technology than other coaches in traditional sports branches so that they can perform effective leadership. In addition, the mental and physical readiness of e-sports players is a strong predictor of productive performance. Thus, team coaches should be as competent and knowledgeable as other trainers in traditional sports branches in terms of sports psychology, exercise physiology, training programming and nutrition. In conclusion, leadership in e-sports, in general terms, is quite similar to the dimensions mentioned in Chelladurai's (1990) theory. Just like in many organizational structures in most sectors, leadership in e-sports also depends on certain characteristics, behaviors, and situational conditions. Leadership in e-sports is an adapted version of traditional leadership theories to the digital age and technological innovations in the sports sector.

Limitations

The data collection phase of this research was limited to individuals who practice esports as a profession. The findings do not include results regarding recreational video game activities and digital gamers. At the same time, the data collection process consists of a five-month period. This process was not a limitation determined from the beginning but was finished when it was thought that data saturation was reached. The data subjected to content analysis was limited to those obtained from participants who answered the first question of the data collection tool as a team coach. The data containing answers other than the team coach were excluded from the research. Other roles for leadership are suitable for different research, but this research focuses on perceptions regarding team coaches.

PRACTICAL IMPLICATIONS

As for researchers and field experts, some research topics might be recommended for further research. Based on the limitations of the research, studies on leadership in roles other than team coach may be conducted in e-sports. Considering the research limitations regarding the distinction between sports and recreation, it may be beneficial for social science to examine the issue of leadership within the scope of recreational digital gaming. Exploring the leadership process in e-sports according to team coaches' perceptions may be beneficial. Developing quantitative data collection instruments for leadership in e-sports can enable various measurements to be made. Examining modern leadership theories that are specific to the e-sports population can fill the gap in the literature. Also, it is important to determine correlations of leadership in e-sports with different concepts and phenomena.

When we consider the issue from e-sports players' perspective, we can understand that the physical appearance of the person they consider as the leader is not that important. Instead, personality traits, professional qualifications, technical skills, and management skills are primarily significant. Therefore, some suggestions can be made for those who would like to assume a role in e-sports as a leader. To be a better e-sports leader, it is important to try to be a good-mannered person. Having a good background at e-sports will contribute to this. Also, keeping up with developments in digital technologies while playing games actively is important. In addition, it is suggested that gain respect through behaviors rather than taking advantage of the team coach position.

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Authors' contributions

All authors contributed in study design, statistical analysis and manuscript preparation.

Declaration of conflict interest

There is no conflict of interest that may arise as a result of the publication of the research report.

Ethics Statement

Eskisehir Technical University Ethics Committee permission was obtained to conduct this research (16/10/2023, 20/4).

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