Leading the Charge in E-Sports

An exploration of leadership behaviors in League of Legends

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Abstract

Følgende afhandling har til formål at bidrage med ny viden omkring de gavnlige aspekter af E-Sports ved at anskue det underudviklede og nye spændingsområde der eksisterer imellem lederskab og E-Sports. **Metodisk** søgte afhandlingen at afdække dette spændingsområde ved at benytte et *mixed methods* forskningsdesign hvorved en hermeneutisk og positivistisk tilgang dannede grobund for opgavens kvalitative- og kvantitative dataindsamlingsmetoder. Herved blev en trianguleringsstrategi udarbejdet for at sikre effektiv brug af de to paradigmer, hvilket udmøntede sig i brug af ét spørgeskema og tre semi-strukturerede ekspertinterviews der udgør afhandlingens primære empiri. Således er der mulighed for både at indhente nuanceret og dybdegående viden om afhandlingens spændingsfelt, men lige så vel generalisere den opnåede viden og dermed give opgavens konklusioner en universel karakter.

Spændingsområdet blev undersøgt **teoretisk** ved brug af Avolio & Bass' Full-Range Leadership Theory og tilhørende Multifactor Leadership Questionnaire. Dernæst blev E-Sports' lederskabsudviklende karakter anskuet igennem *Social Learning Theory* som beskrevet af Anthony Banduras, og *Leadership Development Theory* som beskrevet af David V. Day.

Den **kvalitative analyse** påviste at E-Sports opfylder en række af de nødvendige kriterier for kunne udvikle og styrke lederskabs kompetencer, hvorved de specifikke roller spillere kan optage i spillet kan skabe bedre forhold for lederskabsudvikling og praktisering. Dernæst blev en forbindelse imellem spillerens niveau og lederskabsadfærd etableret; des højere niveau en spiller besidder, des stærkere lederskabsadfærd bør de udvise. Afslutningsvist blev det påvist hvorledes lederskabsudvikling er en proces der afhænger af intentionalitet hvormed spillerens aktive involvering i lederskab er afgørende for en eventuel udvikling.

Den **kvantitative analyse** påviste indledningsvist at der var en signifikant negativ korrelation imellem personer med E-Sports erfaring og selv-opfattet lederskabsadfærd; mennesker med E-Sports baggrund udviste svagere *transformational-, transactional-* og *laissez-faire* lederskabsadfærd end mennesker med ingen erfaring indenfor E-Sports. Dernæst blev det påvist at spillerens niveau ikke har en indflydelse på deres selv-opfattede lederskabsadfærd. Afslutningsvist blev det påvist at spillere der optager *AD-carry* rollen vil udvise en stærkere selvopfattelse af *transformational-* og *transactional* lederskabsfaktorer, end personer der besidder en *support* rolle.

Konkluderende har denne afhandling bidraget med ny viden til et underudviklet og komplekst spændingsfelt imellem E-Sport og lederskab og opfordrer til yderligere undersøgelser med fokus på de lederskabsudviklende træk E-Sports besidder, og hvordan disse kan bruges af organisationer udenfor en E-Sports sammenhæng.

Chapter 1: Introduction

The following chapter will introduce the thesis along with the research question, delimitation, thesis outline and concludes with a brief exploration of the history of E-Sports.

Introduction

The notion of leadership has been an integral part of any business-oriented venture for decades, and its importance continues to rise with time; both business leaders as well as academia has reached a consensus, that leadership is a driving factor in change and must be nurtured carefully. John Gardner (1965), an American scholar, politician and essayist adhered to the notion of leadership as one of the utmost important pillars of society in which he stated:

"Leaders have a significant role in creating the state of mind that is society. They can serve as symbols of the moral unity of the society. They can express the values that hold the society together. Most important, they can conceive and articulate goals that lift people out of their preoccupations, carry them above conflicts that tear society apart, and unite them in the pursuit of objectives worthy of their best efforts." (Gardner, 1965, s. 12).

Leadership is not only a concept with imperative value towards society, as stated by Gardner, but is equally fundamental for success in the corporate world as evidenced by David V. Day and John Antonakis, two of the most distinguished leadership scholars:

"Leadership is required to direct and guide organizational and human resources towards the strategic functions aligned with the external environment." (Day & Antonakis, 2018).

Thus, leadership remains a central element in the business- and social world and its importance continues to rise as it has perused to other areas, namely the world of E-Sports, a discipline that will act as the foundation of this thesis. E-Sports is a phenomenon that has gained a significant amount of traction within the last two decades along with the videogame market to which it is attached. In 2019 the global videogame market was valued at $123,54 billion U.S Dollars and is expected to continue its meteoric rise (Statista, 2019). Following this valuation, a total prize pool of $155,9 million was offered across all E-Sports disciplines in 2018 (Hurst, 2018), and, most recently, the videogame *Fortnite* announced a total prize pool of $100 million solely for their E-Sports platform (Crook,

2019). Thus, E-Sports has grown, and continues to grow, at a rapid pace and is establishing itself as one of the most influential and promising industries globally. But following the novelty of the field, can any prosocial behaviors be extracted from engaging in the industry, and how could a concept such as leadership interact with E-Sports?

To substantiate the latter claim, certain prominent leaders have stated that online video games has been an essential part of developing and honing their leadership competencies. Stephen Gillet, the CIO of Starbucks, stated how World of Warcraft actively simulated situations that would require leadership to best handle. These situations helped him hone his own real-world leadership qualities and carried over to his real-world performance (Chiang, 2010). Similarly, Eliot Noss, CEO of Tucows, actively used World of Warcraft as a platform to enhance his leadership capabilities, as he believed certain scenarios in World of Warcraft were incredibly similar to real-life situations, and thus the skills could not only be strengthened, but transferred (Chiang, 2010). Furthermore, Tang (2018) explores the development of E-Sports and continuously links the concept of leadership development with E-Sports in his paper and believes the link between these two fields to warrant further study (Tang, 2018).

The above-mentioned statements indicate that there are examples in which online video games have nurtured and developed leadership. However, this potential relationship is not the only example of a linkage between the two fields, as several figures within the world of E-Sports have claimed that leadership is a must-have quality in order to improve their odds of success; Tricas, an organization of psychologists solely focused on the mental optimization of E-Sports athletes, advocates the need of leaders in E-Sports. They argue, that leaders are able to engage and motivate their teammates, a skill that is crucial in the world of E-Sports (Saxtorff, 2018). Similarly, Hadrien "Duke" Forestier, the current head coach of one of the top European League of legends teams, *Splyce,* argues in favor of having players that can take charge in a game and provide swift solutions to urgent problems (Valee, 2018). As of such, there is evidence, although scarce, that establishes a relationship between E-Sports and leadership in different ways. Both in regard to the leadership developmental properties, but also to the necessity of leadership for success. Thus, considering the lack of theoretical underpinning of this particular subject, this thesis aims to theorize the linkage between leadership behavior and team-oriented E-Sports disciplines.

Problem Statement

Video games have long been chastised as inherently negative as studies and literature has, overwhelmingly so, focused on the harmful traits of gaming (Ferguson, 2007). However, following the growth of E-Sports and the video game industry, more focus has been given to the positive side of gaming. In 2014 Eichenbaum, Bavelier and Green (2014) reviewed a large body of video-game related research and discovered a positive link between the engagement in video-games and an increase in cognitive ability. They further argued in favor of applying video-games as a tool to improve cognitive functions and could have practical applications such as training surgeons for real-life surgeries (Eichenbaum, Bavelier, & Green, 2014).

Similarly, the term *gamification* was coined in 2008, which refers to, as described by Deterding et al. (2011):" *The use of game design elements in non-game contexts"*. The notion that games could help motivate or otherwise provide value outside of gaming environments was recognized, and gamification rose to prominence and eventually became a billion-dollar industry (Statista, 2019).
Albeit the stream of positive traits of video gaming has increased, there is still little research into the interplay between leadership and E-Sports, specifically concerning either leadership development within E-Sports, or leadership as a necessary precursor for success in E-Sports. However, the current existing literature that explores this link will presented in the ensuing literature review.

The previously established links have been mostly anecdotal, but when considering the interplay between leadership and E-Sports through an academic lens, there are interesting observations to be made. David V. Day describes how leadership development emerges through social interactions and mutual commitments (Day D. V., 2001, s. 605-606). Trust and respect are imperative in this process, and therefore the interplay between individuals who seek the same goal constitute the necessary settings – among others – that allows leadership to develop. Following this perspective, it can be assumed that leadership could develop through E-sports as the environment hinges on mutual commitments, trust and respect among individuals who seek the same goals – in this case teams working together to meet the objective of the game. However, as the area of leadership in the e-sports industry is a novel field, there is no current literature exploring this connection. The perspective from David V. Day creates one motivation – of the many established - for exploring leadership within the Esports industry, as it would seem, on a general level, that the prerequisites for leadership development are present.

The exploration of this field clearly warrants further study, and following the lack of literature, this study will then attempt to shed light on an underdeveloped, yet highly relevant field.

Research Question

This thesis will address one of the most underdeveloped – but nonetheless essential – theoretical fields within the world of E-Sports, which is the link between E-Sports and leadership. Specifically, interviews will be conducted with E-Sports professionals, this includes coaches, managers and players, to inquire into the relationship between E-Sports and leadership and how these elements interact with one another. Furthermore, to allow for the findings of this study to have generalizability, a questionnaire will be constructed that adopts the 6-S Multifactor Leadership Questionnaire (6-S MLQ) proposed by Avolio & Bass (1995) and consider any potential correlations between in-game characteristics and leadership behavior. Following this approach, the research question this thesis intends to answer is formulated accordingly, whilst a set of sub-questions will be fielded to further operationalize the main research question.

What links exist between in-game E-Sports characteristics and leadership behavior?

- *How do traditional leadership development theories align with Esports, as proposed by David V. Day?*

- *What influences the perceived leadership behaviors of individuals who engage in E-Sports, following the usage of the Multifactor Leadership Questionnaire?*

    o *How does the perception of leadership behaviors of individuals with E-Sports experience align with individuals with no prior E-Sports experience?*

    o *How does the competence of E-Sports athletes align with perceived leadership behavior?*

    o *How does the in-game roles align with perceived leadership behavior?*

- *How can E-Sports be used as a learning platform in accordance with Social Learning Theory, as proposed by Albert Bandura?*

In answering this question, the thesis intends on contributing to the foundation of this novel field, and further studies into the values that can be derived from E-sports.

Delimitation

This thesis will have three major delimitations:

Firstly, the research question will restrict itself to Danish E-Sports athletes whom are located in Denmark. The reason pertains to the theoretical scope of *leadership* and the aim is to ensure a uniformity across the target group; Hazucha et al. (2001) found that the perception of *good leadership* was dependent upon the culture in which leadership was practiced. Thus, the restriction to a Danish context will provide a similar perception of leadership among the respondents. Moreover, the restriction is also practical as it eases the data collection process.

Secondly, E-Sports covers a wide array of online-multiplayer competitive games, and not all games function similarly. Certain games will have teams pitted up against one another, in which case different dynamics are introduced, whilst others will be single-player combat where players compete in a one-versus-one scenario. Thus, to ensure a uniformity in the findings the thesis will only consider one videogame. League of Legends has been chosen as the basis of E-Sports and has been chosen for two overarching reasons. Firstly, following the inception of League of Legends in 2009, it rose to prominence and quickly became one of the biggest videogames globally (Cocke, 2018). To this end, League of Legends was conducive to the growth of E-Sports and has one of the biggest E-Sports scenes in existence, and thus the overall findings can be generalized to account for E-Sports in a wider sense than just the game itself. Secondly, League of Legends is one of the biggest games domestically and Denmark has produced an abundance of professional League of Legends players, to the extent that Denmark is the most represented country in the European League of Legends Championship Series (EULCS) (Chouadria, 2018). Thus, data is more available as the player-base is significantly larger, both in terms of respondents for the questionnaire, but equally for Danish experts within League of Legends.

Thirdly, the leadership behaviors that will be monitored have been limited to *Transformational Leadership, Transactional Leadership* and *Laissez-faire Leadership*. The arena of leadership is widely contested and provides many different notions of leadership. Thus, it is not practical – nor beneficial – to measure more than the above forms. However, there might be other connections between E-Sports and leadership, which will briefly be elaborated upon in the literature review, that will not be covered in this thesis.

Thesis outline

There are six individual parts in this thesis and they have been structured accordingly:

1. **Introduction** – firstly, the scope, purpose, aim and research question of this thesis is established.

2. **Methodology** – secondly, an explanation of the methods used to collect- and analyze data follows.

3. **Literature review** – thirdly, a review of the literature and theory this thesis will draw upon in order to answer the research question.

4. **Qualitative- and Quantitative analysis** – then, the acquired findings will be presented.

5. **Discussion** – subsequently, a comparison between the quantitative- and qualitative findings will be presented.

6. **Conclusion** – finally, a crystalized version of the findings and discussion will be presented.

A History of E-Sports

This subchapter seeks to outline the roots, definitions and current status of E-Sports. The chapter initiates with a walkthrough of the different definitions that make up the concept of E-Sports, along with a reasoning behind the chosen definition for this study. Following is the transition of E-Sports from its beginning till its present stage and concludes with an outline of the E-Sports landscape in Denmark.

Defining E-Sport

Tracing the origin of the term *E-Sports* can be a difficult task, as no one individual has taken responsibility for its inception (Taylor, 2015). However, regardless of the origin, E-Sports became a term that would define a billion-dollar industry. E-Sports is short for electronic sports and, following the definition of Hamari & Sjöblom (2017), is:

"A form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are mediated by human-computer interfaces." (Hamari & Sjoblom, 2017, s. 2)

In short, E-Sports differs from videogaming through a competitive aspect, and differs from traditional sport through an online, virtual aspect. Thus, E-Sports is a term used to describe *online competitive*

gaming, and this will act as the working definition for this thesis. Most E-Sports' definitions revolve around online competitive gaming, but some definitions delve deeper. Freeman & Wohn (2017) similarly define E-Sports as *computer-mediated competitive multiplayer-gaming* but add one interesting detail: *spectators*. Spectators elevate the level of E-Sports to an amateur/professional level, as they are mostly tied into tournament/higher forms of competitive play. This thesis has decided against such a definition, as the ties between leadership and E-Sports are interesting to consider at all levels and within all individuals who engage in E-Sports.

The Beginning of E-Sports

The nature of computer-mediated, competitive gaming has existed long before the concept of E-Sports was introduced. The first accounts of such gaming travel all the way back to 1972, where Stewart Brand depict the *"Spacewar Olympics"* in which Stanford computer scientist gathered around the PDP-10 computer for a series of *spacewar* games (Taylor, 2015). The notion of competitive videogaming reached a broader audience in the 1980s, as arcade gaming (along with the ability to keep track of high scores) became much more available to the average gamer. Certain organizations recognized the potential of competitive computer gaming and wanted to add fuel to the digital fire; *Twin Galaxies*, an organization that hosted tournaments and created a collective gaming hub that would continuously provide updates on the state of the competitive arcade scene and provide information on the best current players (Taylor, 2015).

The next step of the E-Sport evolution arrived in the early 1990s exemplified through the development of first-person shooters for personal computers. Titles like *Doom* and *Quake* allowed players to compete against one another which truly facilitated the multiplayer aspect of competitive gaming. Up until this point players would play against the computer and compare their results against other players (Taylor, 2015). The development of competitive multiplayer gaming gained traction from both consumers, media and new organizations that wanted to be a part of the change (Taylor, 2015).

In the early 2000s E-Sports began to expand at a previously unknown pace, in part due to the term *E-Sports* being coined which helped to encapsulate and simplify an entire industry, but also due to the technological advances that allowed for online multiplayer gaming to be accessed easier by players across the globe (GameDesigning, 2018). More games began to flood the market, which, in turn,

created a diversified E-Sports scene. The potential of the E-Sports scene was spotted by major sports organizations; in 2017 the Golden State Warriors from the American National Basketball Association (NBA) created their own League of Legends team (GoldenGuardians, 2019). Equally, the French football club, Paris Saint-Germain (PSG), has entered into several E-Sports disciplines such as FIFA, Rocketleague, Dota and League of Legends (Paris Saint-Germain, 2019).

Conclusively, the meteoric rise of E-Sports continues; the global E-Sports market revenue was estimated at $130 million in 2012, it further grew to $865 million in 2018 and is projected to hit $1.790 million in 2022 (Statista, 2019).

League of Legends

Riot games announced League of Legends in October 2008 and released it the following year. It is a team-based competitive online videogame that falls under the game-genre of Multiplayer Online Battle Arena (MOBA) (Cleverism, 2015). Five players – chosen on the basis of their skill level from the entire player pool in that region – will be placed on each team to compete on a fixed field. The objective of the game is to destroy the base of the enemy team, and in doing so must destroy the offensive towers that guard the path to the base. The map[1] consists of three separate lanes – lanes are unbroken paths in which the towers are kept, and through these lanes *minions*[2] run through towards the enemy base (LeagueofLegends, 2019). Each player will occupy a specific role with certain responsibilities and they are structured accordingly:

- **Top-lane –** The player in the top of the map will solely occupy the lane and will most often play champions that fall under the *tank*[3] or *bruiser*[4] category. He will face one other player in this lane.

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[1] The *map* refers to the field the players compete in.
[2] *Minions* are monsters sent out from the base of teams to fight the other team. Killing minions provides gold that can be used to purchase and upgrade items.
[3] A *Tank* is a champion that focuses on defensive capabilities. His aim is to be difficult to kill by the enemy team.
[4] A *Bruiser* is a melee champion with two objectives: maximize damage and defense. He wants to be difficult to kill whilst having the potential of killing other, more fragile, champions, but is more fragile than a *tank*.

- **Jungler** – The player occupies the neutral battlegrounds on the map. He is in a Player-versus-Environment (PvE) situation wherein he fights against neutral monsters and his main objective is to help his team through *ganking* [5]. The jungler can occupy almost any champion.

- **Mid-lane** – The player fights in the middle of the map versus one opponent. He will typically play champions that focus on using spells and magic – also known Ability Power Carry – and will focus on maximizing his damage output.

- **Attack Damage Carry (AD-Carry)** – This player is in the bottom lane along with the last role, support, and plays a ranged champion with sole focus on damage optimization. He will be the team's biggest threat in the later stages of the game, but not as impactful in the early stages.

- **Support -** This player is also in the bottom lane with the AD-carry and his objective is to support him. Thus, the support does not generate a lot of gold income, as he does not kill minions, but leaves that to the AD-carry.

Figure 1.1: Visual depiction of LoL map and game roles – Source: Author's own construction

The individual roles also have certain item combinations and champion picks, that they must balance to ensure the greatest odds possible for their success. To this end, there are currently 143 unique, individual champions to choose from – each champion has their own skillset consisting of five separate skills (Cleverism, 2015). Similarly, there have been a total of 282 unique items players can

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[5] *Ganking* is the act of ambushing enemy players in their lane in which they create a 2-versus-1 or 3-versus-2 scenario, and thus have better chances of killing the enemy players.

choose from, when equipping their champion with the gold they have earned throughout the game (LeagueofLegends, 2019).

Chapter 2: Methodology

In order for a study to be considered valid and scientific, it must be repeatable (Reed, 2019). This requires the circumstances surrounding the study to be explicit. As of such it is necessary to establish the methodological principles surrounding the study, in order for it be repeatable at any point in time. Therefore, the following section will map out the methodological foundation underpinning this research and will do so on the basis of the "research onion" as described by Saunders et al. (2009). Initially, the philosophy of science will be described, and from here the research design and strategy. Then the collection of empirical data will be described in regard to their reliability and validity.

Philosophy of Science

The purpose of this thesis is to explore the potential correlation(s) between leadership and E-Sports. Therefore, a prerequisite to obtaining the necessary information is to establish how knowledge will be developed. The research philosophy, which are the assumptions and beliefs about the development of knowledge, will influence every step of the research process ((Saunders, Lewis, & Thornhill, 2009, s. 124). This section intends to map out these assumptions and beliefs.

The Hermeneutic approach

Leadership is a complex field, wherein traditional scholars considered leadership to be centered around individuality; behavioral leadership theories argue how effective leadership revolves around competencies, behaviors and attributes of the individual leader (King, 1990, s. 43-45). However, the social aspect of leadership – a field that has gained significant traction within the last two decades – consider leadership as a function of the follower/leader relationship (Maccoby, 2000) or the establishment of a joint vision that allows people to come together (Kumle & Kelly, 2000)

Regardless, leadership is increasingly viewed as a social phenomenon (Hackman & Wageman, 2007), and as of such this thesis has chosen hermeneutics as one of the two main philosophical paradigms. The social nature of leadership refers to the notion that leadership is a process between a leader and a follower, and the examination of such a social and complex process is best achieved through a

qualitative approach (Bryman, 2004). Furthermore, when a topic of research is new, it is even more essential to investigate it more thoroughly using qualitative methods (Jack & Raturi, 2006). As of such, the hermeneutic approach, along with its qualitative methodology, finds greater relevance.

Hermeneutics concerns itself with the understanding and interpretation of human behavior – hermeneutic is Greek and means interpretation – and argues that the study of human action cannot be viewed as an object of science; humans are creatures of culture and free will, and their actions are determined through a certain understanding of the world, that is constantly being re-evaluated and re-shaped (Nygaard, 2012, s. 31)

At the heart of the hermeneutic approach is the hermeneutic circle, which concerns itself with the interpretation of text – the usage of text is not limited to written text, but essentially covers all empirical phenoms that we try to understand: written text, spoken words, the action of a person, an event or case (Nygaard, 2012, s. 78). The hermeneutic circle believes that individual parts of a text can only be understood in the light of the text as a whole and, equally, the whole of a text can only be understood in the light of the individual parts (Nygaard, 2012, s. 78-79). This approach to interpretation of human behavior placed a significantly greater emphasis on the context of the text, as the religious, cultural and individual characteristics of the author would be equally relevant to understanding the text, as the text itself (Brier, 2012, s. 57).

As the researcher moves along the research process and creates new knowledge, it is essential to consider the findings and the way in which the knowledge is created. Specifically, Martin Heidegger and Hans-Georg Gadamer, two of the most influential figures within the hermeneutic approach, construct the notion of circularity between the pre-understanding and understanding of the researched (Nygaard, 2012, s. 80-81). Gadamer argues, that the researcher will not be able to conduct a neutral study, as he himself will become a part of the process – as the researcher understands and creates new knowledge, he will do so on the basis of his own pre-understanding of the subject (Nygaard, 2012, s. 81). The notion that the researcher cannot distance himself from the research is further supported by sociologist Max Weber, as he argues that a researcher cannot view the subject at hand objectively (Højbjerg, 2013). I must therefore be conscious about my own pre-understanding, but what does this entail on a practical level?

Albeit Gadamer argues that our pre-understanding is a result of the historical context in which we are born, Fredslund operationalizes the term by delimitating how the pre-understanding should be considered by researchers (Nygaard, 2012, s. 84); she argues that the researcher must consider the academical perspectives, the theoretical framework and the methodological considerations of the study. Thus, the methodological and theoretical considerations in this thesis, will equally constitute my pre-understanding. Finally, Fredslund argues that the motivation behind the research question must equally be made visible as it is equally a part of my pre-understanding. Therefore, I recognize my own background within E-Sports and competitive gaming, and similarly that the intention of exploring a potential link between leadership and E-Sports is grounded in my own practical experiences; hence I am biased towards establishing a link between the two, but the acknowledgement of this bias will allow me to consider what measures I can take to ensure validity. The validity practices will be further explored in the final part of this methodology section. Lastly, albeit I aim at developing a study built on objectivity, I acknowledge that my pre-understanding will affect my understanding of the subject, and inevitably affect the conclusions of my thesis.

The biggest drawback of applying the hermeneutic approach lies in its limitations. The approach focuses on contextuality and interpretation, and its methodology is qualitative. Although it is possible to speak into the complexity of leadership and E-Sports, it is not possible – solely on the basis of this approach – to generalize the conclusions to go beyond anything, but this study (Nygaard, 2012, s. 95)

The positivistic approach

When distinguishing between research philosophies one would consider three overarching questions: the ontological, epistemological and axiological approaches. **Ontology** concerns itself with the nature of reality; what constitutes reality and is reality universal and absolute, or is it a social construction that is mediated by language and culture (Saunders, Lewis, & Thornhill, 2009, s. 127-128). The positivistic approach has a realistic ontology, as it believes that reality is absolute and is independent of human interpretation (Saunders, Lewis, & Thornhill, 2009, s. 135-136). **Epistemology** is the criteria for which knowledge is valid; can knowledge only be obtained and legitimized through interpretation of human behavior, or can knowledge be observed, measured and considered to be absolute fact (Saunders, Lewis, & Thornhill, 2009, s. 124-125). Positivism originates within the natural sciences and believes that acceptable knowledge can only be observed directly and must be clear and unbiased. As of such, the positivistic epistemology is realistic in nature, as it only approves

of knowledge that can be observed, measured and quantified (Saunders, Lewis, & Thornhill, 2009, s. 136). Positivism adheres to the notion that knowledge can be observed and from it, law-like generalizations can be produced. Finally, **Axiology** revolves around the researcher's own role in the research process. As earlier stated, the role of the researcher is essential in the hermeneutic approach, as the process will inevitable influence his own preunderstanding, and the two are therefore interconnected. However, the positivistic Axiology is opposite of the hermeneutic understanding; the researcher is completely independent from the researched and must remain objective throughout the research process (Saunders, Lewis, & Thornhill, 2009, s. 135-136).

Heron (1996) argues that the research cannot be independent of the researcher's own value, as their values determine their actions and the study they are about to conduct. Instead, the researcher must attempt to articulate their values and, on the basis of these values, explain their reasonings for conducting the research at hand (Heron, 1996). Following this thought, one could argue to which extent it is possible to remain completely secluded – as a researcher – from what is being researched. It is important to note, that positivism originated within the natural sciences; observing and exploring the physical world through fields such as physics, geography, biology etc., wherein there is a stronger sense of homogeneity in the researched fields. The characteristics of water can be assumed to be the same regardless of where in the world it is studied, but the same can not necessarily be said about the characteristics of leadership – Hazucha et al. discovered how the application and definition of "good leadership" is dependent upon the culture in which it is being practiced (Robie, Johnson, Nilsen, & Hazucha, 2001). Therefore, adhering to the true axiological requirements of positivism can be difficult, as the researched topic is a social phenomenon that is – to a certain extent – not objective in nature. However, after acknowledging the difficulty of a true positivistic study, the quantitative section of this thesis will still aim to be a as objective as possible and will map out those sections that inevitably are marked by my own values.

Furthermore, albeit the development of knowledge in this thesis follows a hermeneutic approach I equally recognize and acknowledge the presence and necessity of positivism. Positivism is utilized through the quantitative analysis aimed at assessing the answers collected in the survey, specifically, to consider any potential correlations between leadership and E-Sports, which is the bearing hypothesis that will be tested through a survey, that therefore necessitates the usage of positivism and its quantitative research methodology (Saunders, Lewis, & Thornhill, 2009, s. 136).

As with the hermeneutic approach, positivism is equally limited in nature, which influences the conclusions of this study. The primary limitation is connected to its realistic ontology, epistemology and axiology; only the measurable and quantifiable is acceptable, and data is collected through surveys or other forms of quantifiable methods (Saunders, Lewis, & Thornhill, 2009, s. 135-136). As of such, there is no room for interpretation for phenoms that might be more complex and require a deeper investigation.

Methodological Triangulation

Following the usage of two different research methodologies this research effectively uses *methodological triangulation,* and specifically *across-methods triangulation* (Bekhet & Zauszniewski, 2012). D. Jick further argues that *"qualitative and quantitative methods should be viewed as complementary rather than as rival camps"* (Jick, 1979, s. 602)*.* The strength of combining research methods is further supported by Bekhet et al. (2012) as they argue that the use of two research methods can "*decrease the weakness of an individual method and strengthen the outcome of the study"* (Bekhet & Zauszniewski, 2012, s. 3)*.*

Therefore, the methodological triangulation, in theory, would rival the limitations of both the hermeneutic and positivistic approach, as this study would consider the interpretation and contextuality of leadership and E-Sports, whilst simultaneously draw generalizable conclusions. However, it is equally important to note, that there are limitations to the use of methodological triangulation, that make it necessary to develop a strategy of implementation. Among the biggest limitations are the methods used for the triangulation. If the two methods are too similar, then the triangulation fails to achieve its purpose of "*completeness by using methods with complementary strengths and nonoverlapping weaknesses"* (Jack & Raturi, 2006, s. 349).

Therefore, this thesis will make the following considerations to ensure a successful methodological triangulation, in line with the lessons outlined by Jack & Raturi (2006).

- *Are the methods separable?* The methods are treated as independent studies; the quantitative method is suitable to validate/establish links between leadership within E-Sports, whilst the qualitative method

is more beneficial in speaking into the complexity of the field and understanding the circumstances in which leadership would be linked to E-Sports.

- *Are the methods similar?* This thesis relies on qualitative and quantitative primary data assuring a dissimilarity in methods used.
- *Are the methods used in parallel?* Following the timeframe of this study, the methods are conducted in parallel, however they were slightly sequential, specifically with a one-way inference between the qualitative to quantitative method. Specifically, the answers obtained in the interviews slightly influenced the questions used in the survey and the following analysis.

However, albeit the disadvantages and potential fallacies of using methodological triangulation are acknowledged and mitigated through the application of Jack & Raturi's lessons, certain researchers believe that the epistemological and ontological differences of the methods are incongruent (Bryman & Bell, 2007, s. 643). Any attempt at combining two differing methods will strengthen the findings superficially but will make no difference in the validity of the results (Bryman & Bell, 2007, s. 643). Thus the difficulties of combining differing methods is acknowledged, but in spite of the critique of methodological triangulation the study adheres to the majority of researchers whom believe it is a valuable tool for strengthening the findings, as the problem can be considered and scrutinized from multiple positions (Bryman & Bell, 2007, s. 644).

Conclusively, a hermeneutic approach is applied as it is suited for studying a social phenomenon such as leadership. The hermeneutic approach will be utilized through the semi-structured interviews with figures within the world of E-Sports. The positivistic approach is equally utilized through a survey and following quantitative analysis. This thesis intends to test a hypothesis and armed with a primarily abductive approach, the positivistic research philosophy finds relevance and applicability. Finally, when applying both research philosophies, a methodological triangulation will be implemented. To ensure a successful triangulation a separability and dissimilarity between the methods is confirmed, that allows the findings of the study to be strengthened.

Time Horizon

The **time horizon** of this thesis is cross-sectional, which means that the data collection methods applied will be completed at a single point in time with no follow-up (Rindfleisch, Malter, Ganesan, & Moorman, 2007, s. 4). A cross-sectional design, as opposed to a longitudinal design, was chosen for two reasons: the first reason is the limited time-frame under which this thesis is being completed.

A longitudinal design would have certain advantages that could have helped this assignment, primarily that the occurrence of *common method variance* (CMV) is not as present, however it would not have been possible to conduct such a study (Rindfleisch, Malter, Ganesan, & Moorman, 2007, s. 2-3). The second reason follows the notion that E-Sports is constantly evolving and considering the novelty of the field and the exploratory view applied, the fascination is mostly rooted in exploring if there are any current links, that could warrant further research. As of such, a *snapshot* of reality is advantageous.

However, there are certain disadvantages to applying a cross-sectional time horizon: the study does not consider what happened prior to the study, nor what will follow (Rindfleisch, Malter, Ganesan, & Moorman, 2007). It can therefore be argued to which extent the findings will remain relevant to the researched field. Another issue that is prevalent within this approach is *common method variance*, which is the systematic error caused by a single observation. Specifically, the probability that the researcher would infer an incorrect inference on the basis of the one observation that has been made. However, Rindfleisch et al. (2007), developed certain guidelines that would reduce the presence of CMV in surveys. It is essential that the survey is highly descriptive or *"highly rooted in nature"* (Rindfleisch, Malter, Ganesan, & Moorman, 2007, s. 34). This further strengthens the usage of using the MLQ as the foundation of the questionnaire, as it is directly tied into theory and has been established as a valid way to measure leadership. However, a potential drawback, as described by Rindfleisch et al. (2007), is that the respondents should be highly-educated, which would decrease the probability of CMV. The target group are any- and all Danish individuals who engage in E-Sports down to the age of 12. This could therefore pose a problem to the inference derived from the survey.

Research Design – Theory Development

The research design determines how theory will be used and developed, which equally influences the knowledge development of the study (Saunders, Lewis, & Thornhill, 2009, s. 144-145). The nature of the research design is closely tied into the research question the study attempts to answer. The purpose of the study is to explore the potential links between leadership and E-Sports, and thus posits the hypothesis that there is a correlation between these two variables, and gathered empirical data, will act as the sufficient evidence that will either reject or accept the hypothesis. This aligns itself with the deductive approach as the hypothesis was developed on the basis of full-range leadership theory and leadership in e-sports literature. However, following the lack of theoretical underpinning

this study assumes an exploratory view to better understand the phenomena. As described by Bhattacherjee (2012, s. 5-6), exploratory research is most applicable when the area of interest is recent, underdeveloped or lacking. Furthermore, Stebbins (2001, s. 8) follows the same train of thought, as he argues that exploratory research is an antecedent part of any newly established phenomena. Because of the scarcity in research within this field, there are no theories that explicitly concern themselves with this potential link. Therefore, this study will also have inductive traits as certain variables will be added, removed or adapted in the chosen literature, that will count as an expansion of theory. Equally, to better explore the phenomenon a qualitative approach is applied that allows experts within the world of E-Sports to share their perception of this phenomenon, which will then be viewed through the lens of *social learning theory* by Bandura (1977) and *leadership development theory* by David V. Day (2001), and such an approach is overwhelmingly inductive. This notion of both inductive and deductive elements in one research is supported by Saunders et al. (2009, s. 149), as they argue the combination of approaches can ensure a more comprehensive study and is therefore advantageous. However, following the flexibility between the usage of both inductive and deductive, it can be assumed that this thesis effectively uses **abduction** as the main approach in developing theory. Saunders (2009, s. 148), argues that abduction is effectively a combination of both deduction and induction, as it moves fluently between the data-theory and theory-data approach that characterizes the deductive- and inductive approach.

However, there remains certain limitations to the research design, despite the varied approach. The deductive elements limit the scope to only consider empirical clues that either verify of falsify the theories that will be applied, and therefore will not take any other – albeit potentially significant – considerations into the analysis. An example is the MLQ-survey design that acts as the foundation of the survey, which only screens for laissez-faire, transactional- and transformational leadership behaviors. A critique mentioned in the literature review, is the lack of variation in the leadership styles used in the MLQ-design – following the metaphors by Alvesson et al. (2011) there are leadership behaviors outside of those mentioned in the MLQ, that will not be measured.

Empirical data

As previously stated, the amount of literature exploring the interplay between leadership and E-Sports is scarce. Therefore, this thesis will rely on primary data to address the research question. The primary data consists of three interviews with significant figures within the world of E-Sports, and a survey

wherein the population are Danish of League of Legends players. The advantage to gathering and analyzing primary data, is the amount of control the researcher has over the gathering of data (Malhotra, Nunan, & Birks, 2012). The process can be changed as the needs of the study changes, which would otherwise not have been possible if the study relied solely on secondary data. However, secondary data is also included and is comprised of contemporary literature, research and studies.

Questionnaire Design

In order to fulfill the aim of the survey, data surrounding the real- and virtual world behaviors of players' must be collected. Optimally, longitudinal data logs that could track the in-game behavior of players (time spent playing, skill level[6]), would be most applicable as these are observations of in-game behavior, and – in line with the positivistic approach – would be more reliable as the observations are unbiased. However, such information is not available as game providers do not disclose such information, nor allow access to their own private database. Therefore, a close-ended survey will instead be distributed through online platforms.

The questionnaire-design will be an adaption of the Multifactor Leadership Questionnaire (MLQ), designed by Avolio et al. (Avolio & Bass, 2019). It has been chosen as the foundation of the survey, as it aligns itself with the methodological criteria's of the positivistic approach; following the notion that leadership is a social construction there are few survey-designs that attempt to quantify leadership (Hunt, 1999). Among these, the MLQ has been one of the most established models available since its inception in 1985 (Bass, 1985). Following the creation of the MLQ, it was subject to criticism that allowed for its revision, with the most prominent revision in 1995, wherein Avolio would revise it along with Bass (Bass & Avolio, 1995). The MLQ has a strong claim for its validity; thousands of dissertations, research projects and theses have applied the MLQ, and following continuous revision, it remains relevant in the field of leadership research (Avolio & Bass, 2019).

However, it must be noted that despite the revisions, certain scholars have still criticized the MLQ; S. Carless displayed how the MLQ scale could be influenced by the context in which it was used, and how the factor-scale could therefore be unstable (Carless, 1998). Muenjohn & Armstrong (2008) argue how the nine factors used to measure leadership are highly correlated, and it is therefore

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[6] Most E-Sports follow a system that allows players to see their skill level matched against other players.

difficult to deduce what leadership style is being exhibited. However, Hunt (1999) argues how any survey design aimed at measuring leadership will inherently have limitations, and the critique aimed at the MLQ is therefore not surprising. Berson (1999) argues, that is it possible to circumvent some of the biggest limitations to the MLQ, by applying methodological triangulation. Measuring leadership solely through a quantitative approach can neglect the *why* of study, and the supplementation of a qualitative methodology will provide a more comprehensive assesment of leadership (Antonakis, Avolio, & Sivasubramaniam, 2003, s. 285-286). This further supports the use of methodological triangulation.

Conclusively, the choice of using MLQ as the foundation of this survey, provides the most objective and unbiased design, and therefore best adheres to the positivist requirements.

Questionnaire structure

The questionnaire is a close-ended, self-reported questionnaire that consists of 30 questions and has been structured into three components; the first component is the demographic section that consists of four questions, that intends to acquire information about the background of the respondents; this includes age, occupation, gender, and educational background. The second section surveys in-game characteristics of the respondents, this includes: years spent playing, time spent playing weekly, in-game skill level and game-role. As established in the League of Legends part in the introductory section, there are certain roles individuals can occupy in a game, and those roles might exhibit differing degrees of leadership. To this end, the knowledge of game-role will help to consider if the correlation between leadership behavior and E-Sports is more dependent upon the function an individual occupies within the game, than the game as a whole.

Finally, the third section intends to understand the leadership behavior displayed by the respondents, by asking a total of 21 questions in accordance with the 6-S Multifactor Leadership Questionnaire. The questions follow a 5-point Likert scale with answers ranging from 0-4. The answers represent *Not at all, Once in a while, Sometimes, Fairly Often, Frequently/if not always.* The respondent will be asked to what extent they perform the given task as indicated in the statement. The 21 questions represent the seven factors of which four are attached to transformational leadership (*idealized influence, inspirational motivation, intellectual stimulation, individual consideration*), two are attached to transactional leadership (*contingent reward, management-by-exception*) and one is

attached to Laissez-faire leadership (*laissez-faire)*. Each factor is comprised of three questions, and the order of these questions can be found in the appendix labeled *questionnaire structure.* Furthermore, the questionnaire will not include a *don't know* option. Albeit scholars such as Schuman & Presser (1981) have found the presence of DK options beneficial towards the accuracy of the instrument, there has been an equal amount of evidence suggestion the adverse effects of DK options; Krosnick & Presser (2010, s. 285) noted that DK options does not improve data quality, but might instead be harmful towards the validity, as respondents are more likely to choose *don't know* if the statement is particularly demanding. Equally – and most importantly for this questionnaire – Krosnick & Presser (2010, s. 282) found that respondent motivation would falter in the later stages of the survey, which would further decrease the usefulness of DK questions. The 6-S form is the final part of this survey, and respondents would be more prone to choosing the DK option following their decreased motivation.

Furthermore, the questionnaire includes an early screening question which screens for those individuals that have experience within League of Legends. The respondents that mark *yes* will then be surveyed about their in-game characteristics. Those individuals that reply *no* will instead be asked if they've played any other online multiplayer videogames (this specific phrasing has been chosen as it aligns itself with the definition of E-Sports as established in the *defining E-Sports* section. Those individuals that reply *no* to this question will be directed into the 6-S MLQ form and will act as a comparison group, to consider any significant differences with the experimental group. The comparison group will consist of individuals that match the demographic variables of the experimental group to compare their leadership behaviors, to gauge if E-Sports can be a factor in developing leadership capabilities.

Following the notion that the questionnaire is self-reported, and the respondents have to consider their own leadership capabilities, it is important to consider the degree of *social desirability bias* that might occur. Chung et al. (2003) argue how social desirability is the tendency individuals have to overestimate the probability that they would perform a desirable action (Chung & Monroe, 2003, s. 291). In this case, it could be that individuals overestimate their own leadership capabilities. Two approaches are applied in order to limit this risk. Firstly, in accordance with Krosnick & Presser (2010 s. 286), anonymity is assured among the respondents which will decrease their motivation for

conveying a more favorable image. Secondly, the 6-S MLQ form will be in its original version and no adaptions will be made, as it has proven its validity and neutral language.

The **target group** of the questionnaire are Danish individuals whom are currently active – or previously active – in E-Sports, and specifically League of Legends. The questionnaire will accept answers from players down to the age of 12, as it aligns with the findings from Yee (2006) that claimed that younger players (all the way down to the age of 12) are more susceptible to adapt leadership skills from videogames than their elderly counterpart (Yee, 2006).

Furthermore, the questionnaire has been completed in English, despite the target group being Danish E-Sports gamers. The disadvantages to filling out such a questionnaire is that there might be interpretation issues for the respondents. Especially considering how respondents down to the age of 12 are accepted into the questionnaire, the language barrier could constitute a significant problem. However, English has been chosen as the language for this questionnaire for two overarching reasons: firstly, Denmark is one of the most proficient countries in Europe at speaking English, in accordance to the EF English Proficiency Index, and were ranked as the best non-native English speaking country in Europe in 2014 (EF EPI, 2014). Secondly, in order to stay as close to the original MLQ as possible, it was deemed too high a risk to translate the questionnaire, and potentially misinterpret the questions that would change the conclusions of the survey.

Following the delimitation of this thesis, the questionnaire has been **distributed** within Denmark, to ensure the participation of Danish respondents. The survey was distributed through online platforms, mainly Facebook fan pages and various online gaming forums such as Gaming.dk, Gamereactor.dk and Hardwareonline.dk. The latter proved to be especially beneficial, as roughly half of all respondents were gathered from this site. The advantages of distributing solely through online platforms are: the speed at which the questionnaire can be distributed, the ability to provide complete anonymity, the cost efficiency and flexibility - which is essential considering the budgetary constraints of this thesis -, and the ease at which results and data can be gathered (Malhotra, Nunan, & Birks, 2012, s. 271-275).

However, there are also disadvantages to relying entirely on online platforms. A prerequisite to filling out the questionnaire, is access to devices that can access online platforms. This is however not a significant enough issue to prompt considerations of different modes of administration, as 93% of all

Danish households have access to internet (Statista, 2018). Finally, the questionnaire has been implemented using the professional survey-system, SurveyXact, which will help to reduce any potential technical issues (Ramboll, 2019).

Finally, after gathering the necessary data, the statistical measurements will be carried out in Excel. Thus, a detailed overview of the calculations can be found in the attached excel appendix labeled *E-Sports-data-set-full-analysis*.

Questionnaire pilot test

In accordance with Malhotra et al. (2012) the questionnaire has been sent to pre-selected respondents to serve as a pilot test. This is done in order to consider any inconsistencies or issues, that were not spotted during the construction of the questionnaire (Malhotra, Nunan, & Birks, 2012, s. 476). When deciding upon which form of the MLQ would be applied – the 6-S or nine-factor version – it was important to approximate an estimated time of completion. In order to do so, both versions of the questionnaire were sent out to pre-selected respondents to better determine if the length of the nine-factor version could harm the data. A total of three pilots were used for this part of the testing, and the nine-factor version had an average completion time of 11.08 minutes as opposed to the 6-S version of 5.21 minutes. In accordance with Galesic & Mirta (2009), the answers of the respondents would decline if the questionnaire would require more than ten minutes to answer, and the longer it became the more the dropout rate would increase.

Once the 6-S form was established as the most optimal questionnaire design, three additional pilot-interviews were conducted with the final version. Two of the pilots did not have any feedback to the questionnaire, whilst one pilot reported an instance of confusion. The final section of the survey - the MLQ - is not related to E-Sports and this had not been made clear in the description of the section. To this end, the third pilot believed the questions were specifically tailored to his in-game behavior, and a clear description of how the section were to be understood was developed: the statements of the MLQ relate to their real-life behavior in groups.

Interview structure

The interview structure, guide and design will all be implemented on the basis of Kvale & Brinkmann's (2009) guide to qualitative interviews. Kvale is regarded as one of the leading

researchers within the field of qualitative research methods, and as of such following his guideline will help to ensure a comprehensive and valid approach to the interviews (Bryman & Bell, 2007).

A briefing was conducted prior to the interview to ensure a mutual understanding between the interviewee and the researcher. The purpose of the study and the topic for the interview was covered along with formalities such as the reasoning for recording the interview and their feelings towards this (Kvale & Brinkmann, 2009, s. 132). After the interview a *de*briefing is equally shared with the interviewee, where the respondents have an opportunity to share insights that were not mentioned during the interview. This will ensure a greater sense of relief for the interviewee and allow for a satisfactory closure to the interview (Kvale & Brinkmann, 2009, s. 133).

Then, prior to asking questions, the interview would initiate with a leadership definition as provided by Cohen (1990) which reads: *"Leadership is the art of influencing others to their maximum performance to accomplish any task, objective or project.*" Firstly, the definition was chosen because it aligns itself with the actions of in-game behavior within team-oriented games. For a player to rally his team together and communicate the means of victory, is very similar to the definition provided by Cohen, as the player influences the motivation of others to accomplish an objective to the best of their ability. Secondly, there are many actions that can be taken in-game that are acts of leadership, but there are equally actions that do not align themselves with leadership but might be mistaken for such. Hence, the definition helps to ensure a mutual understanding between the interviewer and interviewees when speaking into the topic of leadership.

Interviewees

The following section will outline the respondents chosen for the interviews in regard to their background and relevancy for this study. The general guideline for choosing respondents are experts within E-Sports (specifically League of Legends). Experts are defined as those individuals that have experience within League of Legends at the professional level, either as players, coaches or managers and are currently still active within E-Sports.

Martin "Deficio" Lynge

Martin Lynge is a former League of Legends player who entered the professional scene in 2012. He later went on to become a coach in 2013 and then became an employee of Riot Games – the company

that created League of Legends – where he was a commentator responsible for the European League of Legends scene. Most recently, he is the general manager of Origen.

Martin "Deficio" Lynge is relevant for this thesis due to his extensive experience within the world of E-Sports. He has been involved with the professional League of Legends scene at the highest level since the inception of professional league of legends. Finally, he has held several leadership roles throughout his career, that would allow him to speak into the topic of leadership in E-Sports with greater authority and expertise.

Rune Fabricious

Rune is a former professional League of Legends player who is currently working as the head coach for *Hydr eSport*. He is simultaneously employed as an E-Sports teacher at both Taarnby youth school and Rudersdal municipality. Rune provides a relevant outlook to this thesis through his professional experience and wide-ranging knowledge surrounding league of legends.

Sofus Bynge

Sofus Bynge is the current head coach of the professional League of Legends team, Singularity, whilst simultaneously working as an E-Sports consultant at Good Game E-Sports. Furthermore, he teaches E-Sports at the high school level and played League of Legends at the semi-professional level. Finally, Sofus has a Master's degree within intercultural marketing communication and wrote his dissertation on the commercialization of E-Sports and can contribute with an academical lens to the subject.

Pilot testing

In accordance with Kvale (2009) several pilot interviews were conducted to measure the extent to which new knowledge was produced, to consider potential fallacies with the interview guide and to consider if the interview methodology could be improved (Kvale & Brinkmann, 2009, s. 345).

Following the conduction of three separate pilot interviews prior to the interview with Martin "Deficio" Lynge, a potentially biased question was discovered. All three pilots gave a similar answer to the question "*Do you believe there is an "optimal" leadership style for managing these teams (professional league of legends teams), or do you think it depends upon the context?*". The answers

all leaned towards a situational response, specifically how none of the pilots believed there existed a universal and optimal way to manage teams. This could be the true perception of the pilots, but this led to a reframing of the question, such that it became more open and neutral. The new framing would instead become "*How do you believe teams should be managed?*". The potential bias is reduced, and the respondent might better express their true perception of the topic.

Another potential fallacy with the pilot testing is the body language and tonality used by the interviewer. These are elements that can equally guide the respondent towards a specific answer, and these are elements that cannot be observed through transcripts. Albeit the framing of questions might be neutral, the way in which they are asked might not be. A way to mitigate this risk would have been through video-recording the pilot interviews, to better understand if such elements interfered with the interview.

The pilot testing led to a reconsideration of the influence my preunderstanding had on the framing of the questions. Theories of leadership that consider a universal and optimal approach to leading are typically outdated. However, the current stream of relevant leadership theory considers the situational context a necessary precursor to successful leadership – among these are contingent-, transactional- and transformational leadership (King, 1990). Following this knowledge, it can be assumed that I, subconsciously, attempted to guide my respondent towards a specific answer, albeit that might not have been his own perception. Furthermore, to limit the influence of my pre-understanding all questions were open-ended. Fredslund (2012) argues how closed questions will confirm the pre-understanding of the interviewer and therefore fail to acknowledge that of the interviewee (Nygaard, 2012, s. 80-82).

Reliability and Validity

The terms '*reliability*' and '*validity*' originated within the natural sciences and were terms used to describe how well an instrument – in this case the quantitative research tool – could measure what it was supposed to measure (Golafshani, 2003). Thus, validity and reliability in quantitative research refers to the accuracy of the instrument that will be administered. Conversely, in qualitative research, the research instrument is the researcher himself, which aligns itself with the hermeneutic approach wherein the researcher cannot distance himself from the subject and should instead seek to clarify how his pre-understanding will influence the subject.

The purpose of this section is thus to consider the rigor of the research and how the quality of the findings can be improved. The following section will make a distinction between validity and reliability within quantitative and qualitative research, and how the application of these concepts can strengthen the findings of this thesis.

Quantitative reliability and validity

This section will consider to which extent the collected data and the chosen data-collection techniques have influenced the findings of this thesis, by specifically considering the survey-*instrument* chosen to measure the relationship between leadership and E-Sports.

Firstly, *reliability* refers to the accuracy and reproducibility of the instrument administered – accordingly, Joppe (2000) (as cited in Golafshani, 2003) defines it as:

"…The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. "

Thus, the survey-instrument applied in this thesis will be considered reliable if the study were to be reproduced and the answers were to remain similar. However, instead of following the *test-retest* method, as explained by Charles (1995), the study will instead ensure the reliability by applying Cronbach's alpha, and has done so for two central reasons: Firstly, the test-retest method concerns itself with conducting the study twice, at two separate times. The clear advantage to this method is the practicality of testing for the *stability* of the instrument, but the downside is equally the practical requirements. Due to the time constraints of this thesis, it is not possible to test the instrument at two different times. Secondly, the Cronbach's α is one of the most established and widely used measurements tools of reliability within quantitative research and does not have any practical requirements that would complicate its implementation in this thesis (Tavakol & Dennick, 2011). Furthermore, the Cronbach's alpha is able to measure the reliability of instruments that feature questions with more than two answers, which is the case in the instrument of this thesis.

Cronbach's alpha is a measurement tool that measures the internal consistency of the instrument – in other words how accurate the separate items measure the same phenom – and does so by measuring the inter-relatedness of the items in the instrument. Conclusively, a reliability estimate (alpha) is produced that ranges between 0.00 – 1.00 and will be more reliable the closer to 1.00 it becomes (Tavakol & Dennick, 2011).

Validity, as described by Golafshani (2003, s. 599), refers to the accuracy of the instrument and to what extent it measures what it is supposed to measure. To this end, he argues that the interaction between construct and data is greatly influenced by the researcher, which will inevitably harm the validity of the construct. This further strengthens the use of the 6-S MLQ, as a standardized survey-design that requires a minimal personal interference.

Qualitative validity

This section will only consider the validity of the qualitative research as *reliability* is deemed irrelevant in accordance with the following quote by Stenbacka (2001, s. 552) *"the concept of reliability is even misleading in qualitative research."* Reliability considers the reproducibility and measurement of the instrument, and since the instrument is the researcher itself and his role is to illuminate and demystify a phenomenon, the concept of reliability, as construed in quantitative research, is not only a useless addition but can even be harmful, following the quote by Stenbacka, *"the consequence is rather that the study is no good".* The notion of only considering validity in qualitative research is equally supported by Lincoln and Guba (1985) (as cited in Golafshani, 2003): *"Since there can be no validity without reliability, a demonstration of the former is sufficient to establish the latter."* Thus, a consideration of validity will cover the quality-criteria of this section of the study.

Validity has been a contested topic of discussion within qualitative research in so far as many different researchers believe validity concerns itself with *authenticity, trustworthiness, plausibility, credibility* and so forth (Creswell & Miller, 2000, s. 124). Similarly, numerous researchers have provided different frameworks on how to establish valid research, which further clouds the ambiguous nature of validity within qualitative research (Creswell & Miller, 2000, s. 124-125). To this end, this section will pertain to the definition of validity given by Creswell & Miller (2000) and similarly follow their framework on how to best establish a valid report.

Creswell & Miller (2000) define validity within qualitative research as the accuracy of the respondent's reality of the studied phenomena. This is further substantiated through Kvale (2009), as he argues that the objective of the interviewer is to understand the world from the basis of the interviewee. Thus, the accuracy of the interviewees narrative of the world is what construes the notion of validity as proposed by Creswell & Miller (2000). Furthermore, Creswell & Miller (2000) argue that validity is not limited to the gathered data, but equally the inference made from said data. This fits the notion of *the researcher as the instrument* and emphasizes my ability to analyze the data in order to ensure valid results.

Creswell & Miller (2000) argue that there are two overarching dimensions that must be considered, when establishing validity: Firstly, the *lens* applied by the researcher which refers to the viewpoint; the researcher can consider their own viewpoint, that of the respondents or the external reader with no prior involvement with the study. The other dimension refers to the chosen paradigm of the researcher which dictates the best approach to ensure validity. Similarly, Creswell & Miller consider three separate paradigms: *Postpositivistic, Constructivist* and *Critical* (Creswell & Miller, 2000, s. 125-126)*.* Initially, this thesis has chosen hermeneutics as the paradigm to support the qualitative research which is most similar to, when considering the three paradigms, the constructivist paradigm. Constructivism focuses on interpretation and "…*contextualized perspectives towards reality."* (Creswell & Miller, 2000, s. 125-126)*,* whilst hermeneutics equally focus on intertextuality and understanding. Thus, there are three validity procedures that will be applied that are connected to the constructivist paradigm.

Disconfirming evidence is the process of looking for evidence that is contrary to the themes of the study. Miles & Huberman (1994) argue how researchers are often biased in finding and confirming answers that best align themselves with their research purpose, and therefore neglect information that could state the contrary. Thus, the purpose of this lens is to strengthen the validity of the researcher's role in the study. Practically, this will be achieved by considering any disconfirming evidence in the interviews, that would speak into a non-existent relationship between leadership and E-Sports (Creswell & Miller, 2000, s. 127).

Prolonged engagement in the field refers to the researcher conducting an ethnographic study through which he can strengthen the validity of the respondents to acquire a more comprehensive assessment of their answers. Albeit relevant, this is unfortunately not an option following the time-restraints of this thesis and will not be applied (Creswell & Miller, 2000, s. 127-128).

Finally, **Thick, rich description** is the final lens that refers to the external individuals of the study. The aim is to provide the context and interaction of the interviews that allows the reader to better understand how the answers came about, and if there could have been any potential bias. To this end, the qualitative analysis will provide rich descriptions of the interactions to create, as described by Creswell & Miller (2000, s. 129), verisimilitude.

Summary: Methodology

In order to establish a clear overview of the methodological considerations and choices of this thesis, a visual summary using the *research onion* as described by Saunders et al. (2009) will be developed.
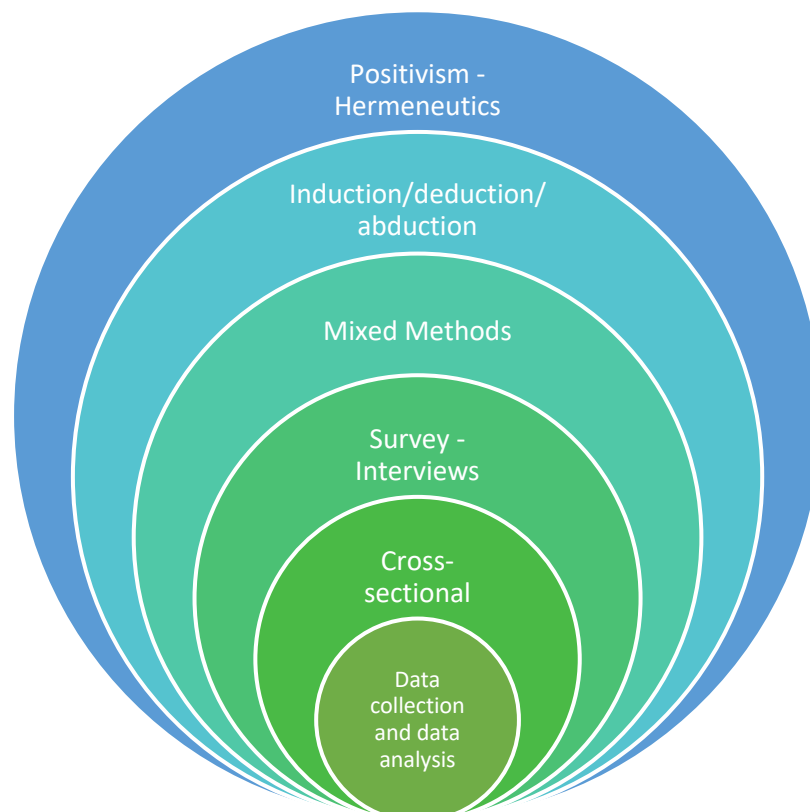

Figure 2.1: Saunders' research onion as depicted in this thesis – Source: Composed by the author

As visually depicted, this thesis applies a cross-sectional time horizon, and will collect data through the use of both interviews and a survey. The methodological underpinning is a mixed method in order

to strengthen the findings of this thesis. The study is both inductive and deductive in nature, and effectively applies an abductive approach following the fluency in which the thesis moves from theory-data and vice versa. Finally, the philosophical paradigms this thesis will follow are Positivism and Hermeneutics. Positivism is applied to allow for generalizable findings whilst a hermeneutic approach can acquire a more in-depth view of the phenomenon. Following the above approach, a methodological triangulation will be applied along with a triangulation strategy to ensure a successful implementation, in accordance with Jack & Raturi (2006).

Chapter 3: Literature review

Albeit there is a scarce amount of literature exploring the world of E-Sports, the majority of this literature has concerned itself with the harmful traits associated with E-Sports engagement (Ferguson, 2007). Following the growth of E-Sports, there has been an equal growth in the literature exploring the positive developments and benefits (Guo, Cahalane, & Carbonie, 2018), however the predominant position within this field is overwhelmingly negative. This thesis therefore aims to contribute to the prosocial body of E-Sports literature, by exploring the potential links between leadership and the phenomenon at hand. To successfully achieve this aim, the following chapter will outline the literature and theory this thesis will draw upon, to answer the research question. Initially, theories of leadership will be discussed to establish the leadership behaviors most relevant for the research question. Following is a discussion of the Full-range leadership model and the Multifactor Leadership Questionnaire (MLQ) that will be applied in the quantitative part of this thesis. Then, the *leadership development* theory as proposed by David V. Day (2001) will be explored to understand the context in which leadership arises and the similarities shared with E-Sports. Subsequently, this thesis intends to uncover to which extent E-Sports can be used as a learning platform to develop leadership competencies. In order to explore this perspective, it is necessary to understand how learning occurs and thus the principal learning theory of this thesis will be *Social Learning Theory* as described by Albert Bandura (1977). Finally, a brief discussion of the current body of literature exploring *leadership in E-Sports* will take place.

Leadership theory

Leadership as a concept has existed for centuries but wasn't a subject of academic research until the twentieth century (Bass, 1981). The importance of leaderhip was quickly recognized, and the amount

of research began to accelarate, but it largely remained a contested arena of differing definitions (King, 1990, s. 43). The first branch of leadership theory, *trait leadership*, believed that good leaders were largely born with specific traits that allowed them to excel. The traits could not be taught and following the universal nature of the traits, a good leader would excel regardless of the location/culture he would lead (King, 1990, s. 45-46). Trait leadership faced significant criticism concerning its one-dimensional focus, and was faulted for failing to empirically verify the theory (Derue, Nahrgang, Wellman, & Humphrey, 2011, s. 8). Contingency leadership was developed in the 1960s and, in contrast with trait leadership, had a more nuanced outlook as it argued how effective leadership was contigent on the context in which leadership was practiced. However, although contingency theory was a significant development in leadership research, there were substantial drawbacks, mainly the lack of practical application (King, 1990, s. 47-48).

Leadership theory was slightly halted following the critique of contingency theory but was revitalized through the development of *transactional leadership*. An effective leader was not only a combination of traits contingent upon the social context but is equally a social phenomenon that considers the interplay between the leader and the follower (King, 1990, s. 48). Bass (1981) argues how the existence and presence of leadership is dependent upon the approval and acknowledgement of the followers whom the leader shall lead. This branch of leadership has maintained its position and relevancy among current leadership theory (King, 1990, s. 48), and will be one of the leadership styles applied in this thesis.

The latest and most prominent addition to the branch of leadership theory is *transformational leadership*, which builds upon the transactional leader. The leader is equally dependent upon the follower and their main responsibility is to motivate them into performing a given task. However, the defining difference is the degree to which the leader is proactive or reactive (King, 1990, s. 49). Transactional leaders are to set clear structures wherein the followers know exactly what is needed of them to succeed, in which case they will be rewarded, and failing to meet the objectives will generate punishment. Transformational leadership goes beyond the realm of reward/punishment and encourages leaders to motivate- and guide their followers to achieve their maximum potential (Wolinski, 2010).

Both transactional and transformational leadership will be used in this thesis as it belongs under the umbrella of *behavioral leadership,* a discipline that concerns itself with the behavior of the leader and, most importantly, believes the behaviors can be taught following the correct conditions (Derue, Nahrgang, Wellman, & Humphrey, 2011, s. 7-8). This is beneficial for the study, as social learning theory (which will later be discussed) is used to consider the degree to which E-Sports can be used as a learning-enhancement platform for leadership capabilities, and it is therefore essential that the leadership styles can be taught. Specifically, the leadership behavior is the way in which the leader exercises their authority or the process of interacting with their followers (Newstrom & Davis, 2002).

Multifactor Leadership Questionnaire – MLQ

Bass (1985) considered transactional- and transformational leadership to be complementary disciplines, and as of such sought to create a framework that could measure the leadership styles in the real world (Lowe, Kroeck, & Sivasubramaniam, 1996, s. 385). At the point of inception, transactional leadership was already an established branch of leadership theory, that had endured rigorous academic scrutiny to ensure the validity. However, this was not the case with transformational leadership. Certain scholars had differing opinions of its place in leadership literature and the way it should be understood. Burns (1978) argued how transformational leadership was completely unrelated to transactional leadership and could be seen as its polar opposite. Bass (1985) argues, as briefly mentioned, the complementarity of the constructs and explains how leaders can be both transactional and transformational at the same time. To better establish the validity of transformational leadership, Bass created an instrument capable of providing systematic evidence to test the applicability of the theory (Lowe, Kroeck, & Sivasubramaniam, 1996, s. 387).

The initial framework proposed by Bass (1985) only considered transactional- and transformational leadership and would do so on the basis of five distinguishable factors (Lowe, Kroeck, & Sivasubramaniam, 1996, s. 387). However, the theory was further revised and expanded several times following significant and rigorous testing between 1985 and 1990. Avolio & Bass would, on the basis of the complementarity between transactional- and transformational leadership, develop the *full-range leadership theory* that expanded the leadership behaviors to also include *laissez faire leadership*. The MLQ was equally revised and included nine total factors that would measure transactional-, transformational- and laissez faire leadership (Antonakis, Avolio, & Sivasubramaniam, 2003, s. 264-265).

Nine-factor full-range leadership theory

In order to acquire a more comprehensive assessment of leadership behaviors, Avolio & Bass expanded the original five-factor model to consider nine factors. The expansion also covered laissez faire leadership as a stark contrast to the two other forms of leadership (Antonakis, Avolio, & Sivasubramaniam, 2003, s. 264). Transformational leadership is *proactive* in which the leader inspires, motivates and actively engages in the development of their followers. In contrast transactional leadership is *reactive*; leaders create clear objectives for their followers and monitor the outcomes, and the process in which leadership is exerted is based on *exchanges* (Antonakis, Avolio, & Sivasubramaniam, 2003, s. 264-265). Albeit the approaches are different, they both actively intervene to improve the circumstances (Den Hartog, Van Muijen, & Koopman, 1997, s. 21). Contrarily, laissez faire leadership is *inactive* leadership which is in stark contrast with the two former approaches. The style is characterized by the absence of transactions and involvement, and the leader will avoid making decisions and will not intervene unless absolutely necessary (Antonakis, Avolio, & Sivasubramaniam, 2003, s. 265). Den Hartog et al. (1997) argue that laissez-faire leadership is the absence of leadership because of the extreme inactivity. Furthermore, Bass (1990) established a negative correlation between laissez faire leadership and follower performance and effort, meaning that applying such an approach will be damaging to the results of the followers.

The nine-factor full-range leadership theory is comprised, as the name implies, of nine separate factors that measure the different aspects of the three leadership styles and is practically achieved through the posing of 45 separate statements that the respondent has to answer. However, the questionnaire will also include a demographic- and in-game behavioral section, along with the MLQ model, which could limit the data collection process due to the length of the survey. This is further supported by Galesic & Bosnjak (2009) as they established a positive correlation between the length of a questionnaire and the percentage of respondents that finished the questionnaire. Specifically, the longer the questionnaire the more probable respondents are to dropout.

However, this thesis will still apply the MLQ model as proposed by Avolio & Bass but will use the 6-S form that was developed in 1992. This form equally screens for transformational-, transactional- and laissez-faire leadership, but does so using seven factors instead of nine, and contains a total of 21 individual statements. Shortening the questionnaire in this regard is deemed more important to

maintain the validity of the instrument, albeit the longer, 45-statement questionnaire, is widely regarded as more comprehensive.

The four factors that represent transformational leadership are: *inspirational motivation, idealized influence, intellectual stimulation* and *individualized consideration.* Two factors were identified for transactional leadership: *contingent reward* and *management-by-exception.* Finally, one factor would represent the passive style of leadership of laissez faire: *non-leadership* (Antonakis, Avolio, & Sivasubramaniam, 2003, s. 278).

Full-Range Leadership Theory Limitations

The full-range leadership theory contains two of the most significant bodies of leadership literature and contrast it with laissez-faire leadership for a comprehensive assessment of leadership styles. However, there are leadership styles that exist outside of the scope of the full-range leadership theory (FRLT). Alvesson et al. (2011) argue how leadership is a complex and contradictory field, wherein good leaders can make bad and immoral choices and vice versa. They further argue how transformational leadership simplifies this notion and denies the ambiguity that exists in real-world leadership (Alvesson & Spicer, 2011, s. 3). Instead they propose their own approach to leadership which consists of six separate metaphors that encapsulate both *good* and *bad* leadership behaviors. As an example, they provide a metaphor for the leader as a bully. The bully leads through intimidation, coercion and exclusion strategies and the description of such a leadership style is not present in the full-range leadership theory but is nonetheless relevant. E-Sports is a playing-field wherein the players have historically exhibited a great deal of *toxicity* (Buffee, 2017). It is common practice in most E-Sports disciplines to see players intimidate, insult, exclude and silence fellow players (Perez, 2018). The behavior has long been rooted in the field of gaming and could be compared to the *bully* metaphor as provided by Alvesson et al. (2011). A superficial comparison of the two could therefore argue that the *bully* is present within E-Sports, but since this thesis will only consider the three leadership styles within the FRLT, it is not possible to uncover such correlations that might otherwise exist. The FRLT is thus not encompassing of all leadership variations.

However, this thesis applies the FRLT for three overarching reasons: firstly, the leadership behaviors in the FRLT have been the subject of immense academic rigor and maintains significant relevance to this day. Alvesson et al. (2011) equally acknowledge the role of transformational leadership as one

of the most predominant current leadership theories. Secondly, transformational leadership has been linked to increased follower commitment, job satisfaction and involvement and is widely regarded as the most efficient leadership style (Burton & Peachy, 2009). Between the three different leadership styles, the survey can measure potential correlations but can equally measure if improvements to the potential style can be made. Finally, survey designs that measure leadership quantitatively is scarce, and the MLQ has proven to be one of the most prominent and valid frameworks currently available and was therefore also chosen as a result of practicality.

Defining leadership

Following the previous discussion on the theories of leadership, it has been difficult to establish one universal definition, as there are many contesting theories that define it differently. Bass & Stogdill (1981) fittingly described the attempts at defining leadership as: *"There are almost as many different definitions of leadership as there are persons who have attempted to define the concept."* However, this study will pertain to a definition that is both broad enough to encapsulate different branches of leadership theory whilst supporting the usage of full-range leadership theory. The definition, as defined by Bass (1990), is as follows:

"Leadership is an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of members…Leadership occurs when one group member modifies the motivation or competencies of others in the group. Any member of the group can exhibit some amount of leadership…" (Bass B. M., 1990, s. 19)

Leadership is therefore defined as the ability to modify the perceptions, expectations, competencies or motivations of a group member. Leadership is not necessarily a *role* that a person occupies, but more so a behavior that can be exhibited by anyone. This aligns itself with the behavioral leadership theories applied in this study.

Leadership Development

David V. Day (2001) proposes that leadership development contains two facets: *individual leader development* and *collective leadership development.* The former has an internal focus in which the intrapersonal competencies are developed, including self-awareness, self-regulation and self-

motivation. This type of leadership development is, in a crystalized version, about *human capital* (Day D. V., 2001, s. 583-584). The latter focuses on the interpersonal development of leadership and considers competencies such as social awareness, trust, and social skills. Thus, this type of leadership development is about *social capital.* Likewise, he argues that the development of social capital is dependent upon social interactions; individuals can't develop collective leadership capabilities, if there are no other individuals with whom they can engage (Day D. V., 2001, s. 585)*.* Furthermore, Day (2001, s. 586), argues in favor of both types of leadership development, as the combination is wherein the most value lies. Leaders must have individual qualities in which they can differentiate themselves, whilst they must also understand how to create trust and coordinate actions among followers. Day (2001, s. 586) attempts to shed the notion, that leadership development only occurs through unique programs, but is instead a reiterative process that can occur at any time and place. David V. Day (2001) describes six different ways in which individual leader- and collective leadership development can occur: *360-degree feedback, executive coaching, mentoring, networking, job assignments, action learning.* However, only three approaches will be described – *networking, job assignments* and *action learning* – as the others are deemed not relevant and not naturally occurring within E-Sports.

- **Networking opportunities –** Networking is the process in which individuals informally build relationship with other individuals, with the aim of establishing peer relationships and support groups. Networking increases social capital as individuals are exposed to other perceptions, which can challenge their assumptions and further their thinking (Day D. V., 2001, s. 596-597). Day further argues, that in order to achieve the maximal benefit from networking, the individual should be in possession of strong intrapersonal skills, and thus networking can bridge the gap between leader- and leadership development (Day D. V., 2001, s. 597).

- **Job assignments –** A different way to facilitate the development of leadership is through job assignments or, as Day elaborates the term, through experience. The most efficient way of learning, changing and developing is through job experience, and thus the job experiences can be matched with the individual to ensure a suitable development assignment (Day D. V., 2001, s. 598). To this end, there are ways in which job assignments can promote development and conversely impede development.

- **Action learning –** This notion supports the idea that individuals are more probable to develop permanent leadership capabilities, if they are learning through real-time tasks. Thus, Day

argues, leadership should not be limited to classroom courses, as the individual will revert back to their old behavioral patterns following the completion of the development program (Day D. V., 2001, s. 601).

Social learning theory

Prior to the introduction of *social learning theory* as proposed by Albert Bandura (1977), the principal theories of human behavior and human learning followed the notion that humans were primarily driven by intrinsic motivations (Bandura, 1977, s. 1-2). Albeit certain contemporary theories did consider the external influences on human behavior, the theories were not enthusiastically embraced as the they reduced man to a victim of circumstances rather than a proactive and thinking being (Bandura, 1977, s. 2).

Bandura combined both internal and external influences in his *Social Learning Theory*, in which he argued that the governing mechanics behind learning were both social through *observational learning,* and internal through *self-reinforcing systems* and *motivation* (Bandura, 1977). Observational learning is the social interaction in which individuals observe the behavior of other individuals and acquire large units of information, that can act as a future guide if they were to engage in similar behavior (Bandura, 1977, s. 5-7). Similarly, self-reinforcing systems refers to the internal scale individuals draw upon, when deciding if they are to engage in a behavior (Bandura, 1977, s. 27-28). The self-reinforcing system has two components: *self-approval* and *external reinforcement.* The former refers to the value allocated to the given behavior by the individual. Do they value and approve of the behavior or are they negatively oriented towards it? The latter refers to the external reward given to the individual when engaging in said action, or conversely, the punishment for such engagement. Thus, individuals will balance these two components to determine if the actions are worth pursuing (Bandura, 1977, s. 28).

Social learning theory can be criticized for disregarding the biological factors that influence individuals and their ability to learn. Specifically, Jefferey (1990) believes social learning theory attributes to much value to the social environment, and neglects established learning theory that considers the biological factors of individuals when processing social information. Similarly, social learning theory doesn't consider the preparedness to learn that individuals exhibit differently. Thus, certain players could be more inclined to learn leadership behaviors through playing as they are more

biologically predisposed than others to do so (Jeffery, 1990). However, although social learning theory holds the social influence in high regard, it equally accounts for the internal mediators that influence individual learning (Bandura, 1977). Similarly, the primary streams of learning theory – such as behavioral learning, cognitive psychology and social constructivism – do not extensively consider the implications of biological factors (International Bureau of Education, 2019). Hence, social learning theory holds relevancy despite neglecting potential biological markers that could influence the player's ability to learn through playing.

Self-efficacy

Bandura (2010) further introduces the notion of *self-efficacy*, as an additional critical component in determining behavioral change. Self-efficacy is, as described by Bandura: "*Beliefs in one's capability to organize and execute the courses of action required to manage prospective situations.*" (Bandura, 2010, s. 20). Thus, prior to the engagement in actions, individuals will initially assess their own capabilities, and the probability that they will be able to carry out the given action. This concept partly aligns with the notion of *motivation* as described in Social Learning Theory, but self-efficacy is significantly more situation-specific and the actions are often connected to a goal (Bandura, 2010, s. 20). Whilst motivation will primarily consider the intensity of the effort exhibited by the individual, the self-efficacy is concerned with their perception of their beliefs in relation to achieving the goal of the action.

Bandura further lists four ways in which self-efficacy can be raised, which will allow the individual to be more prone to engaging in the desired behavior.

- **Mastery Experiences** – These are the interpreted results of direct experiences with the desired action. If individuals experience positive results this will raise their self-efficacy whilst negative experiences will decrease it. According to Bandura (2010, s. 21) this is the most effective way of influencing self-efficacy.
- **Vicarious Experience** – These are experiences of others, in which individuals will gather information about desired behaviors through the engagement of other individuals. This is particularly useful if the individuals have limited experience with said behavior, however this is not a impactful as mastery experiences.
- **Verbal Persuasion** – This refers to external reinforcement of one's capabilities from others through verbal reasoning. This is not as impactful as vicarious- and mastery experiences but

can still influence the individual's self-efficacy, albeit it is necessary that the encouragement is valid and not empty praise with the sole purpose of raising self-efficacy.

- **Psychological States** – This refers to the anxiety, stress and other psychological states the individual might experience, that can negatively impact their self-efficacy (Bandura, 2010, s. 21-22).

Leadership in E-Sports

Leadership has traditionally been an offline activity that required a physical presence. However, Avolio et al. (2000) argued how leadership could be practiced to an equally effective degree through information technology, and it was therefore not dependent upon a physical presence (Avolio, Kahai, & Dodge, 2000). Following this notion Reeves et al. (2008) further mentioned that online game leaders perform tasks that are similar to real life leadership, and that leadership skills obtained through online gaming environments could potentially be transferred to real life situations (Reeves, Malone, & O'Driscoll, 2008).

Ducheneaut & Moore (2005) argued that a positive correlation exists between online multiplayer games and leadership competencies, specifically how online games can be used as a learning tool to strengthen leadership skills. This notion was reinforced through the research of Jang & Ryu (2011) as they established a positive correlation between game leadership and offline leadership, specifically how leadership competencies acquired in-game would correspond with leadership competencies in real life. However, although the study conducted by Jang & Ryu applied a quantitative approach, the sample consisted of Korean gamers (Jang & Ryu, 2011, s. 618) and its applicability to European gamers and leadership can be questioned, following the differences between leadership and gaming culture between the Asian and Western region.

In 2008, Reeves conducted a pioneering study into the role of leadership in online games and, backed by IBM, set out to uncover how the future of leadership might look (Reeves & Malone, 2007). Equally, they wanted to consider if games could help to revamp the way companies consider their work, and if the implementation of games could better allow employees to tap into their potential through the engaging nature of games (Reeves & Malone, 2007, s. 4). Reeves et al. adopted the Sloan Model of Leadership to consider the extent leadership was presence in online games and concluded that all aspects of the model was present in online games, and that the digital environment better

facilitated the emergence of leadership than a physical environment. Conclusively, the study established a positive correlation between the emergence of leadership and online games (Reeves & Malone, 2007, s. 10).

Finally, albeit the literature surrounding E-Sports within a leadership context is scarce, this thesis will acknowledge and attempt to build upon the existing literature that has been established in the previous section.

The initial link this thesis will consider is the link between leadership development and E-Sports, and the extent to which an online gaming environment can facilitate the strengthening of leadership competencies, as theorized by Reeves et al., Jang & Ryu and Duchenaeut & Moore.

Chapter 4: Qualitative Analysis

The following section will initially establish the first validity criteria, a *thick, rich description,* as proposed by Creswell & Miller (2000). Then, a brief analysis of E-Sports as an arena in which leadership can be developed will follow, using the theory of *leadership development* as proposed by David V. Day. Then the gathered data will be analyzed in light of *social learning theory* to consider how players currently engage with E-Sports and if their engagement through E-Sports can help them to learn and improve upon certain leadership behaviors. Finally, the last validity criteria, *disconfirming evidence,* will be implemented wherein any data that could indicate a lack of relationship between leadership and E-Sports will be examined.

Thick, Rich description

In accordance with the established validity criteria proposed by Creswell & Miller (2000), the analysis begins by providing a *thick, rich description* of the interview experience. Holloway (1997) argues that a *thick description* is the explication of cultural- and social relationships and the language should paint the scenario as accurately and vividly as possible, to create a clear image of the context in the mind of the reader. Ponterotto (2006) further argues that the use of *thick, rich descriptions* in interviews, must consider the demographic- and psychological characteristics of the respondents. Thus, this section will pertain to the characteristics described by Ponterotto, as the definition given by Holloway (1997) relates to the original use of the term in ethnographic studies.

The notion of considering the demographic and psychological characteristics of the respondents equally aligns itself with the hermeneutic foundation of this thesis; the individual parts can only be understood when placed in relation to the holism and vice versa. Thus, in order for the retrieved data to be considered comprehensive and valid, there must be accurate descriptions in place – thick, rich descriptions – that describe the individual parts surrounding the interview (the demographic- and psychological characteristics). Similarly, following Fredlund's operationalization of hermeneutics, she described the necessity of *putting yourself in their place* (Nygaard, 2012, s. 88). This entails an exploration of the subject's pre-understanding that will help us to understand *why* they answer in the way that they do. However, following the natural constraints of a study of this nature, it is not realistic to consider the pre-understanding of each respondent, instead, this section will provide a shared account of those characteristics, which equally acts as a mapping of their collective pre-understandings.

Finally, Ponterotto (2006, s. 547) argues that a thick, rich description is not limited to the characteristics of the respondents, but equally the way in which the reporter presents the findings of the interviews. To ensure validity through this approach, adequate quotations from the respondents must be presented, to allow the reader better visualization of the interaction between the researcher and the interviewee.

Demographic and Psychological characteristics

Firstly, all interviewees were male – this was not a conscious decision by the researcher, but presumable a result of the culture surrounding E-Sports; *women in games* estimate that 5% of all professional gamers are women (WomenInGames, 2019), and following the respondents' background within professional gaming, it was simply easier to gain access to this group. Secondly, all interviewees were in their mid-late twenties which can equally be attributed to the E-Sports culture. ESPN compared the ages across the North American professional League of Legends scene which amounted to an average age of 21,2 (ESPN, 2017). None of the respondents are active as professional players, but those that were active – Martin Lynge and Rune Fabricious – were both active in their late teens/early twenties, and later transitioned into a coaching/managerial position. Thirdly, all respondents are Danish, and all interviews were conducted physically in Denmark. I visited all respondents at their desired locations, which were the gaming offices of the teams they were employed at.

All respondents have been involved with League of Legends since its inception in October 2009, and their careers all revolve around the game. Martin Lynge is the only respondent who has been involved with the game on a full-time basis since its inception, whilst Rune Fabricious and Sofus Bynge have been involved with the game on a part-time basis, until finishing their respective education. Furthermore, the level at which the three respondents have operated is also different. Sofus Bynge, during his active player-career, played at the semi-professional level but his competitive record was brief and competed only within a Danish context. Similarly, Rune Fabricious competed professionally and had a more extensive career but did not compete at an international level. However, Martin Lynge competed at the international level early in his career and played in one of the most successful European teams, Copenhagen Wolves, in the 2012/2013 season. He later transitioned into a coaching role, also at the international level, and is most recently the manager of one of the strongest teams in the European league. Thus, his credibility and experience of League of Legends at the highest level, is greater than those of the other respondents, and his answers might carry influence from the highly competitive and global context he has been a part of, and attention should be payed to this, when interpreting the findings.

Finally, an explication of the respondents' relationship with leadership is also relevant to consider, as it can help to illuminate the motivation behind their answers. Although all respondents answered positively to whether they had actively focused on their leadership capabilities throughout their careers, Rune Fabricious stated: "*I should definitely have asked more around to my pro-friends what they were doing differently, because it was something I never really got good at, this leadership aspect.*" (interview: Rune Fabricious). Thus, although Rune did actively focus on improving this aspect, he acknowledges that he did lack in this regard. Similarly, when Rune was asked how important he believed it was to have a coach with strong leadership competencies he stated: "*Not as big as the community wants it to be. I don't think the coaches' impact is as big on players...*" (interview: Rune Fabricious). Thus, one could argue that the importance of leadership is not prioritized in his own coaching, as he considers the impact of leadership to be limited.

Hence, Rune's focus on his ability to practice leadership was most notable during his active career as a player, while both Sofus Bynge and Martin Lynge argued they had to improve their leadership skills following their positions as coaches/managers. To this end, they both currently consider how

leadership can benefit the success of their teams, whilst Fabricious stated the underwhelming nature of leadership. Therefore, Sofus Bynge and Martin Lynge had – and continue to have – experience within leadership practice, whilst the topic is not as relevant for Fabricious.

Procedures

The interviews were conducted inside the training rooms that the teams would practice in; relatively large rooms with ten high-powered gaming desktops along with screens, keyboards and mousepads in bright colors that matched their organization. We would sit in equally colored gaming-chairs across from each other and I would place my phone on the desktop in between us, to allow for the recording to capture our voices equally. Prior to the interview we would engage in small talk, mostly related to their experiences within E-Sports, which ensured a relaxing and friendly atmosphere.

The interview length ranged from 40:00 – 52:00 minutes and were also followed with small talk about certain topics raised during the interview, or personal experiences unrelated to the topic at hand. I had printed out my interview guide and placed it next to me, so that I could always glance at it, whilst still ensuring a constant flow of conversation. Following the semi-structured nature of the interviews, there were certain questions in the guide I wouldn't ask, and conversely there were questions I asked that were not mentioned in the guide but followed the direction of the conversation. I interviewed Rune Fabricious and Sofus Bynge at the same location, Hydr E-Sports, and did so around noon, and only a handful of people were present at their office. This allowed for a quiet and intimate interview, with no external distractions. Similarly, the interview with Martin Lynge was also held at noon, but the office, RFRSH Entertainment, was packed. RFRSH Entertainment houses two of the biggest E-Sports teams globally – the CounterStrike team *Astralis* and the League of Legends team *Origen* – and the former warehouse-turned-gaming-house building in which they reside, had approximately 30-40 employees lined up with desks formatted in a triangle formation. Hence, employees would often pass by the gaming room we sat in, a room that was covered by see-through glass walls, that allowed anyone to take a peek inside. Albeit the interview with Martin Lynge had an informal and friendly character, there was a sense of urgency and precision in his responses, that led you to believe he had other, more pressing, matters to attend to.

David V. Day – Leadership development

Day (2001, s. 584-585) argued two distinct types of leadership development can occur: *intrapersonal leader* development and *interpersonal leadership* development. To this end, he argued that *networking* was a way in which social capital could be increased. Networking appears to be present within E-Sports as evidenced by Martin "Deficio" Lynge: *"you're not always playing with the same people."* Networking concerns itself with building relationship with individuals with whom you've had no prior engagement. As established in the introductory section of this thesis – and evidenced by Deficio – players will constantly play with different individuals, that challenges their beliefs and assumptions, as they are exposed to different views on the game. Thus, through constantly engaging with new individuals, players can raise their social capital, and are similarly put into a situation in which they must be in possession of intrapersonal capabilities to maximize the benefit of this type of networking (Day D. V., 2001, s. 596-597).

Secondly, Day argues that job assignments can be a tool in which development is encouraged – or impeded depending on the type of assignment. Assignments that are challenging are those that provide the greatest opportunity for development, as individuals have to overcome these challenges and the process of doing so will develop the capabilities needed for overcoming them (Day D. V., 2001, s. 598-599). He mentions *obstacles* as a component that can help promote development, and such obstacles are present in E-Sports. As players battle other players they are constantly challenged and faced with obstacles they must overcome. Thus, the hardship they overcome will allow them to develop capabilities. However, if players are to develop leadership capabilities, it would hinge on whether or not the situation would require leadership to overcome those obstacles. The importance of leadership in League of Legends will be analyzed in the coming section, *social learning theory*.

On the topic of job assignments, Day (2001, s. 600) argues that *job transitions* are an excellent tool for promoting leadership development. Placing an individual in an unfamiliar position will accelerate their development as there are new challenges, assignments and obstacles they must overcome to be successful. This is equally evident in League of Legends following the different game roles as previously established. All five positions come with specific tasks and responsibility, and players can thus be in a better position to develop their capabilities, if they transition between these roles.

Finally, Day (2001, s. 601) mentions *action learning* as a tool to develop leadership capabilities, which advocates for the need of developing leadership in the setting it is supposed to be used. For example, if an individual attends a leadership development course in a classroom, they are more prone to revert back to their old leadership behavior once removed from the classroom. This notion of *action learning* can be used as evidence to suggest a lack of transferability between leadership skills developed through E-Sports and the implementation of those in real-life. If a player strengthens certain leadership behaviors through the game, they might not be able to implement those in other settings, as they will revert back to their usual leadership behavior.

Finally, a critique – or a limitation – to the development of leadership capabilities within E-Sports, as described by David V. Day, is the lack of intrapersonal development. All the above-mentioned examples overwhelmingly focus on the development of social capital. Intrapersonal development mostly depends on mentoring or coaching programs (Day D. V., 2001, s. 581-590), but these are exclusive to the professional level. Thus, the development that would take place for singular individuals, without a coaching staff, would primarily be collective leadership.

Social Learning Theory

The following section will consider how E-Sports can be used as a didactic platform for strengthening leadership capabilities, by viewing the gathered data through the lens of Social Learning Theory as proposed by Bandura (1977). Similarly, the objective of this section is not to draw universal and generalizable conclusions, but more so to consider the possible causal relationship that might exist between the two.

Learning leadership through playing

Following this notion, Albert Bandura created the concept of *self-efficacy* as a primary driver for behavioral change. Self-efficacy is the amount of belief a person has in their own capabilities and is instrumental in behavioral change. Raising the self-efficacy of a person will make them more likely to put in a greater effort, and Bandura (2010) further describes ways to increase the self-efficacy of other individuals and states:

" Social persuasion is a third way of strengthening people's beliefs that they have what it takes to succeed. People who are persuaded verbally that they possess the capabilities to master given

activities are likely to mobilize greater effort and sustain it than if they harbor self-doubts and dwell on personal deficiencies when problems arise." (Bandura, Self-efficacy, 2010, s. 2)

Thus, strengthening the beliefs of others about a given task will enable them to pursue that task with greater effort. This aligns itself with the following statement from Martin "Deficio" Lynge that arose during the interview, when he was asked into the importance of leadership on in-game success:

"I find, if I am try-harding[7] when I'm playing, and I'm actually communicating, most of the time people do follow, and I find way more success. I win a lot more games if I say, "hey let's go here now, or let's do this now", instead of just sitting silent." (Interview: Martin "Deficio" Lynge)

Thus, the argument that improving the self-efficacy of others through social persuasion will yield a greater effort is reflected in the quote from Deficio. However, as this thesis pertains to the field of leadership, it is important to consider to what extent the actions performed by Deficio can be labeled as an act of leadership. To establish this link, a reference is made to the leadership definition applied in the theoretical section as described by Bass (1990, s. 19-20): *"Leadership occurs when one group member modifies the motivation or competencies of others in the group."* Thus, leadership within E-Sports can be considered as the action of communicating (*modifying*) their intentions of how they believe the team (*group*) should proceed in order to win the game (*motivations or competencies*).

The above-mentioned example by Deficio not only indicates that the application of leadership can be beneficial to engage in, but it can also contribute to the development of similar behavior within other individuals. To better understand how this can be the case, the act of observational learning, as explained by Bandura (1977, s. 2), is considered:

"In actuality, virtually all learning phenomena resulting from direct experiences can occur on a vicarious basis through observation of other people's behavior and its consequences for them. Man's capacity to learn by observation enables him to acquire large, integrated units of behavior by example without having to build up the patterns gradually by tedious trial and error." (Bandura, 1977, s. 2)

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[7] Try-harding refers to a competitive mindset within the LoL community

Following this train of thought, the behavior of one player can be observed by other players and their experience is equally absorbed by other players. Thus, if Deficio successfully practices and applies leadership in-game, then other players will, through observational learning, acquire information of that behavior. But how will the observations of such behavior result in a behavioral change? Bandura further argues how:

"Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action." (Bandura, 1977, s. 22)

Thus, the observational learning grants insight into other behaviors, that might, at one point, guide them towards behaving in a similar matter. It can therefore be argued that leadership development can occur through League of Legends through observational learning.

Self-Efficacy and Self-Reinforcement

Thus far it has been showcased how leadership practices might develop through playing, as a causal link has been established between in-game success and leadership. Hence, individuals would be more inclined to practice leadership because they are more prone to be successful as observed in other players, which is theoretically exemplified through the notion of self-efficacy. However, not all players exhibit leadership qualities in-game, albeit it appears it would be beneficial. An answer to this particular question can be found in a statement provided by Rune Fabricious:

" When I peaked at low challenger, this very high level of mechanical skill[8], and I was playing on a team that was not doing well, not anywhere near challenger level, it became apparent I would have to focus sometimes on other things, such as leadership." (Interview: Rune Fabricious)

Thus, when considering why leadership is not a staple among all players who engage in League of Legends, Rune's statement provides clarity; players who do not engage in leadership practices might

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[8] *Mechanical Skill* covers a wide array of different actions in League of Legends, but overarchingly cover the precision and accuracy of the player's mouse- and keyboard movements (Pickard, 2017)

not consider it important enough to implement it into their game, and conversely consider other aspects to be more vital to their success, such as *mechanical skill*[8]. This is further supported by the notion of *Self-Reinforcement* as established by Bandura (1977, s. 27). He argues, that humans learn and alter behavior through observational learning, but the mediating factors that influence human behavior are not limited to external forces as humans would, as described by Bandura (1977, s. 27): "*... behave like weathervanes, constantly shifting in radically different directions to conform to the whims of others.*" Hence, he proposes *self-reinforcement* as an intrinsic system that regulates behavior on the basis of their internal values (Bandura, 1977, s. 28). Specifically, the individual will consider the external rewards of the behavior and their intrinsic motivation for engaging in that particular activity. For instance, if a player does not value leadership and the external reinforcement for practicing leadership is limited, then the probability that such a player will adopt a behavioral change and engage in leadership activities is limited (Bandura, 1977, s. 28). Conversely, if a player values leadership highly and is extrinsically rewarded for such behavior, they are significantly more likely to adopt that behavior, as is exemplified through the statement from Deficio. This further aligns with the concept of *attentional processes*, as described by Bandura (1977, s. 6). Although individuals are prone to learning new behavior through observations of *models,* they must equally award this model the attention, if such as process is to be feasible. In other words, if a player is practicing leadership – and doing so successfully – other players will not adopt a similar behavioral change, if they do not pay adequate attention to the player in question.

However, the abovementioned statement by Fabricious equally invites discussion into the importance of leadership within E-Sports. Rune managed to reach a level of challenger, which only 0,03% of the total League of Legends player-base can reach (LeagueofGraphs, 2019), and did so without paying particular attention to his leadership skills. Thus, reaching a professional level can be done without actively implementing the art of leadership, and the extrinsic reinforcement of leadership in E-Sports is not necessarily a deciding factor. This notion will be further discussed in the final section of this qualitative analysis, *disconfirming evidence.*

Moreover, if players do not consider leadership to be of high value the probability that they will develop or strengthen leadership capabilities is decreased, as it is highly dependent upon their intrinsic motivation. However, Bandura (1977, s. 28) further argues, that if the external reinforcement of leadership is rewarded and outweighs the lack of intrinsic motivation, individuals would accept a

behavioral change, but this begs the question: *is leadership behavior externally rewarded?* Following the statement of Deficio, the answer is a resounding yes, but following the statement by Fabricious it would appear not. Similarly, Sofus Bynge, when asked into how important it is for players to have strong leadership capabilities to succeed, he stated: "*No not necessarily, it's all about team dynamics.*" (Interview: Sofus Bynge). Thus, leadership is not tied into the individual player but more so the team dynamic, such that the team should have players who are in possession of leadership qualities, but it's not vital that each player is in possession of such qualities. Thus, the answer to the external reinforcement of leadership is, at best, ambivalent.

Further evidence that supports the claim of self-reinforcement as a vital aspect of leadership practice within League of Legends, can be derived from a statement from the interview with Fabricious, who states:

" You can play videogames where you are trying to enable yourself to get better at leadership and do all the things, but it's not a natural thing… it's not an automatic thing that comes with playing games. It comes from doing it in a very strict fashion and you have to get to a point where you care so much that you try to improve these things, before that point, you're not improving anything."
(Interview: Rune Fabricious)

Thus, Rune argues in favor of an active approach to development within E-Sports, and that leadership development can arise through E-Sports but does not do so passively. Up until this point, evidence for observational learning that could foster leadership development has been found but was mediated by the self-reinforcing systems within individuals. However, the above-mentioned statement by Rune raises a new concern, which *self-reinforcement* might struggle to adequately explain. Rune makes the argument, that the development or strengthening of capabilities – not limited to leadership – is contingent on an *active* approach. A player cannot solely through observations develop leadership capabilities, and although self-reinforcement is an essential mediating factor, the deciding factor appears to be the actual implementation of leadership into your game. Although it can appear as a self-explanatory argument – how can leadership be strengthened without the practice of leadership? – it, nonetheless, seems valid. The notion is further supported in the interview with Deficio as he, similar to Fabricious, mentions:

"...I think it's actually about priority. If you want to teach someone who is not naturally good at it." (Interview: Martin "Deficio" Lynge)

This reinforces the notion, that development occurs through an active approach towards those capabilities, and prioritizing what you need to do to get there. Similarly, the notion almost perfectly aligns itself with a concept introduced by Day (2001, s. 598), which he coined *intentionality*. He describes that even if the conditions for leadership development are perfect, the development will be halted by an unwilling participant. Thus, before an individual can develop their leadership capabilities, they must we willing to engage in behavior that has the potential to develop them in the first place.

However, what enables a player to actively attempt, outside of the self-reinforcing factors, is the individual's motivation for adopting such as behavioral change. Thus, Bandura explains, that even if a person values something highly and is extrinsically reinforced for adopting such behavior, they might not do so because: *"There are countless attractive options people do not pursue because they judge they lack the capabilities for them."* (Bandura, Self-efficacy, 2010, s. 4). This invites a new discussion into the difficulty of practicing leadership. What if players did value leadership and were rewarded for engaging in such behavior, but the practice of leadership is strenuous and outside of their own capabilities? When asked into the difficulty of developing leadership capabilities, Sofus Bynge stated the following:

"...it is exhaustive to be shotcalling. It's extremely demanding to be shotcalling, and it's often very hard to learn how to shotcall." (Interview: Sofus Bynge)

Before analyzing the meaning behind the abovementioned quote, it is necessary to consider what shot-calling is and how it relates to the act of leadership. Shot-calling is the art of in-game decision making; specifically, the communication applied by players to establish what needs to be achieved in order to be successful (Valee, 2018). This aligns itself with the leadership definition chosen for the interview guide across all interviews, as outlined in the methodology section: *"Leadership is the art of influencing others to their maximum performance to accomplish any task, objective or project."* (Cohen, 1990). Thus, when Bynge references shot-calling it acts as a form of leadership, as the

individual is influencing his team members to accomplish a specific task or objective, as described by Cohen.

Returning to the quote by Bynge, it appears that shot-calling – and therefore the act of leadership – is immensely difficult to implement and learn. Thus, it would seem appropriate to re-introduce the notion of *self-efficacy* as it argues that individuals will consider behaviors that match their own capabilities. If leadership is immensely difficult to implement, and individuals don't believe they have the necessary capabilities to follow such an implementation, they are more prone to avoid such behavior (Bandura, Self-efficacy, 2010, s. 3-4). Thus, it is necessary to raise one's own self-efficacy such that individuals will better believe their capabilities match those of the behavior. The most prominent and effective way of doing so, in accordance with social cognitive theory (a development of social learning theory), is through *mastery experiences* (Bandura, Self-efficacy, 2010, s. 6). Mastery experiences cover the interpretation of the results of the individual's actions. Thus, if an individual were to practice shot-calling in-game the results of that action would be interpreted, and if the outcome was successful, the individual would have a strengthened sense of self-efficacy and thus a mastery experience. This argument ties into the previous argument, that the strongest way to develop leadership capabilities through League of Legends, is to actively engage in leadership. The more successful experiences the individual has, the more inclined they are to continue engaging in that behavior.

In contrast it is also important to note, that although shot-calling can be immensely difficult to learn, as it requires the individual to be able to focus on their own game whilst securing an overview of their teammates action, there are other aspects of leadership that take place in League of Legends. When Deficio was asked into a potential link between leadership practice and in-game success he noted the following:

"I think you will. Because there are so many different ways to try to practice leadership in these games. It doesn't have to be that you try to have all the answers and you know exactly what to do. Maybe you're just communicating what you're able to do, and some people could use that information." (Interview: Martin "Deficio" Lynge)

This further substantiates the claim of mastery experiences, as the individual does not necessarily have to take responsibility of the entire team, but can gradually ease into the experience, and thus strengthen their own self-efficacy.

The argument and evidence of leadership development in E-Sports, has, thus far, proven to be complex and circular; if a player is successful at practicing leadership in-game, other players will, through observational learning, acquire large units of information that will act as a future guide. However, following the difficulty of learning leadership, it is necessary for players to believe that their capabilities match those necessary of their desired behavior, and must then strengthen their self-efficacy through mastery experiences. However, if these conditions are present, the individual will still be mediated by their self-reinforcing systems, wherein they must determine how highly the value leadership and if they will be adequately rewarded for practicing it.

Leadership development within game-roles

Finally, the respondents were also probed into the importance of leadership within specific game-roles, and certain answers reoccurred across all interviews. Hence, this section will consider if there is a difference in the probability a person will develop or strengthen their leadership capabilities based upon the role the occupy in-game. As stated in the introductory section of this thesis, there are specific roles players must occupy, that come with certain tasks the players must pertain to. Similarly, evidence has been found that leadership is relevant in some cases – the case of Deficio – and not as significant in others – the case of Fabricious. Thus, could leadership carry a greater significance and influence on some game-roles over others? Could some of these tasks create better opportunities for leadership development?

Deficio outlined a clear difference in the importance of leadership between the separate game-roles. He mentioned how two roles would consistently have to be in possession of strong leadership qualities:

"...I think in the early parts of the game, the jungler has to be a leader. The jungler has to be confident in communication, he has to be confident he can dictate the pace of the game… you need a jungler who is vocal and has some leadership capabilities." (Interview: Martin "Deficio Lynge)

The first role wherein leadership is a crucial quality is thus the role of the jungler. The second role is that of the support, as further stated by Deficio:

"I want my support to be able to talk from start to finish, because his role is less intensive when it comes to the individual things he's doing, and he needs to be able to coordinate with the entire team." (Interview: Martin "Deficio" Lynge)

Sofus Bynge shares an identical view as he further states: *"it's most important for the jungler and the support."* (Interview: Sofus Bynge). Bynge goes on to argue why these two positions are more leadership-dependent than other roles. In his explanation he provides as very easy-to-understand concept in which he draws parallels to the *Dungeons and Dragons* board game:

"If we break League of Legends down to a Dungeons and Dragons game where you have three actions per turn, there is actually room for shot-calling actions in the jungle and support, but not for the top, mid or ad-carry." (Interview: Sofus Bynge)

The idea is, that the support and jungler are not as occupied with battling the opposition, and thus have more time to acquire a greater overview of the game and are thus in a better position to lead. This notion would posit that jungle- and support players have better conditions for developing leadership than other positions, as the roles allow more time and flexibility to do so.

Conclusively, there is evidence that suggests that E-Sports could be used as a platform for the development or strengthening of leadership capabilities, but it requires a system of self-reinforcement that values the importance of leadership. Furthermore, the motivational aspect that ties into the concept of self-efficacy is equally relevant, as players will not engage in an activity that they do not believe they have the capabilities to execute properly – and evidence has been found that suggests that leadership, in the form of shot-calling, is a difficult concept to learn. Finally, evidence that favored leadership as a factor that would improve the success rate of players has been found, but contrasting evidence that explored how leadership was not a determining factor in the success of players was equally found. Thus, there is no evidence that would suggest that leadership capabilities are automatically developed through E-Sports, but instead requires effort and an active approach towards developing them, but the platform *can* be used as a learning tool. When considering the

research question at hand, evidence, albeit not generalizable, has been found between E-Sports and leadership.

Disconfirming Evidence

The qualitative analysis, up until this point, has considered the leadership developmental properties of E-Sports, and how players can learn and adopt new leadership behaviors through social learning. This section, however, will do the opposite; data that points in other directions will be considered, to increase the validity of my claims, as stated by Creswell & Miller (2000).

Is leadership necessary to succeed?

The first concern that suggested a lack of correlation between leadership and E-Sports was raised by Rune Fabricious, in which he was able to reach a professional level without actively engaging in leadership practices, which would suggest that leadership is not necessary in order to be successful at E-Sports. The claim was further substantiated by Rune's own statement, where he was asked how important it is, to have a team-coach with strong leadership capabilities:

"Not as big as the community wants it to be. I don't think the coaches' impact is as big on players…"
(Interview: Rune Fabricious)

There are two points made in the statement by Fabricious. Firstly, the initial part of his statement indicates that there is an existing notion in the community[9] that coaches with strong leadership skills are important for team success. This would actually strengthen the claim that leadership is important for E-Sports success, but no further evidence surrounding pre-existing attitudes towards E-Sport from the community has been considered. Secondly, and most importantly, Fabricious expresses that coaches with strong leadership skills are overrated and are not particularly impactful when it comes to the success of the team.

Prior to extending this discussion, the traditional role of the coach in E-Sports, and how his actions relate to the notion of leadership will be established. Coaches are foundationally responsible for the performance of the team, and thus have a large say in the strategic and structural approach to the

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[9] The community refers to the League of Legends player-base

game (Hyun, 2018). Thus, coaches change the motivations of their team to achieve the objective of winning the game.

Then, when returning to the discussion of how leadership might be overrated, it is interesting to consider the context upon which Fabricious provides his statement. As previously stated, the hermeneutic cycle argues that a text can only be understood in the light of the holism and vice versa. Thus, when considering the statement that leadership is overrated, it is necessary to consider Rune's preunderstanding and the motivation behind his statement. Firstly, Rune was previously a professional League of Legends player, that competed domestically throughout his career. Although he competed at a high level, he never played on the international stage, and was thus separated from the best globally. Similarly, Rune is employed as a coach at Hydra E-Sports but does not coach – and has not coached – a professional team. This notion is especially relevant when considering the previous statement by Rune, in which he said that he started practicing leadership when became so good at the game, that he did not know how else to improve. Thus, when Rune proposes that leadership – primarily within coaches – is of limited importance, it could be understood in the light of the teams he's coaching and the level of E-Sports competence he has been in. Leadership is not necessarily irrelevant, but Rune is coaching teams that have other, more pressing, priorities they must consider before they can focus on leadership. Hence, leadership relevancy could be a function of the skill-level of the players and teams.

To substantiate this claim, the statements issued by Martin "Deficio" Lynge can be considered in the same vein. Deficio spoke into the importance of leadership over several occasions, and when asked into leadership at the broader, organizational level he noted:

"Anyone can get lucky and get five players that fit together and they end up doing really well. No one is lucky enough to have five or six teams in a row that end up being the best. Then it's more about the structure, the culture and the leadership you bring." (Interview: Martin "Deficio" Lynge)

However, the importance of Deficio's statement must also be considered in the light of his pre-understanding and motivation. Deficio competed as a player at the international level and was a part of Copenhagen Wolves and Ninjas in Pyjamas, where both organizations competed in the top European League. Most recently, Origen, the team at which Deficio is employed as the general

manager, finished second in the European League of Legends Championship series, and thus cements them as the second best team in Europe, and one of the top contenders globally (Porter, 2019). Hence, when Deficio speaks into the importance of leadership, he does so on the basis of League of Legends at the highest level. Thus, leadership is exceedingly important for Deficio, because it can be a distinguishing factor at the highest level of play, when players are already incredibly talented at playing the actual game.

An interpretation of the above analysis can therefore be, that the role of leadership is mediated by the skill level of the players. If the players are not playing at a professional level, leadership is not impactful as there are other areas that require more attention. Conversely, if players are competing at the highest level, leadership is significantly more important as it can be a deciding factor in the success between players. Thus, the strength of the link between leadership and success in E-Sports is heavily mediated by the level at which players engage in.

Chapter 4b: Quantitative analysis

The following section will firstly describe the demographic information about the obtained sample using descriptive statistics, namely: (a) mean, standard deviation and range for age, (b) frequency distributions for gender, educational- and occupational background, (c) frequency distributions for in-game League of Legends characteristics. Then, prior to analyzing the gathered data using inferential statistics, *cronbach's alpha* will be calculated as a standard of reliability. Following is an outline of the demographic statistics surrounding the experimental- and comparison group. Then the first hypothesis will be tested which considers the difference in leadership behavior between the experimental- and comparison group and will be tested through the application of an independent sample t-Test. Afterwards the second hypothesis will consider the potential correlations the player skill-level has on perceived leadership behavior and will be tested through an analysis of variance (ANOVA). Finally, the third hypothesis will be tested which considers the potential influence in-game roles has on perceived leadership and is also measured through an ANOVA.

Descriptive statistics – Survey Sample

Firstly, prior to engaging in describing the sample any inconsistencies in the gathered data will be considered. The inconsistencies, as described by Muijs (2004, s. 91), are meant to find any

observations that would appear to be incomplete, misguiding or incorrect. Thus, after filtering out the sample – only two responses were removed – the total sample contains 107 (*N = 107)* complete responses. Of those responses 83 (78%) were male, whilst 24 (22%) were female as depicted in figure 1.1. An overwhelmingly male response rate is not particularly surprising considering the nature of the topic and the channels of distribution; the primary means of distribution were online gaming forums, and although data covering gender distribution in those specific platforms aren't available, one could assume it's a male-heavy userbase, on the basis of a report carried out by Nielsen Media (2017). They found, that 77% of all E-Sports fans are male, which would match the gender distribution of this sample very well. Thus, the selected channels can be assumed to have had a male-heavy userbase which has been reflected in the gathered sample.

Following, the average age of the respondents is 26 with a range of 30, such that the oldest respondent is 44 whilst the youngest respondent is 14. The standard deviation is 6,4 which would suggest that the age is concentrated between 20-32, which is visually depicted in the below table.

Figure 3.2, Age interval distribution of N = 107 - Source: authors own construction

The average age reflects the population quite well. Statista (2015) reported in 2015 that the average age of E-Sports players in North America was between 24-27 and the average age for players engaging in League of Legends was specifically 26, which perfectly overlaps with the average of this sample. In a Danish context, Statista (2016) also found that 21% of all individuals in Denmark, across

gender, between the ages of 18-29 engage in E-Sports, which was by far the most significant age group, which further substantiates the sample-population age distribution.

Finally, the occupational- and educational information has been depicted below. The majority of the respondents are students, closely followed by full-time employees with three individuals who work part-time and two individuals who are out of employment. Furthermore, most respondents have bachelor's- or high-school degrees, whilst 17% have finished their master studies and 12% have secondary school as their highest finished education.
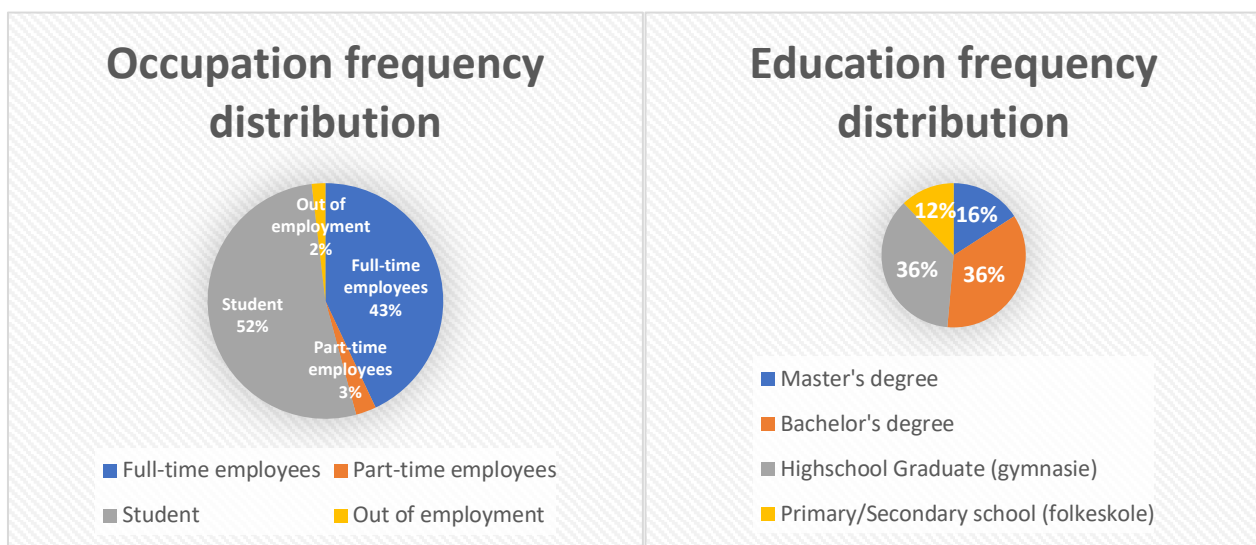

Figure 3.3, 3.4 – Occupational- and educational frequency distributions of N = 108 – Source: authors own construction

The educational background of respondents is especially critical to consider when measuring leadership behaviors; Chen et al. (2010) found that the educational background of individuals was a significant factor in determining what leadership style they preferred. Although it is not entirely similar to the analysis at hand, education can be a determining factor, and must be payed close attention to during the analysis.

League of Legends descriptive statistics

Of the 108 respondents 76 had prior experience with League of Legends or are currently engage with it, and 32 have never had experience with the game. Of those 32 individuals 11 has had experience with other online-multiplayer games and 21 has not had any extensive experience with any E-Sports. Thus, the 21 respondents with no E-Sports experience will act as the comparison group, to explore if

E-Sports experience has an influence on leadership behaviors. However, a comparison group of 21 individuals can make it difficult to perfectly match the demographic variables, and similarly the fewer respondents the more inaccurate the measure. Thus, the study would have benefitted from gathering more data from respondents with no prior E-Sports engagement. However, the experimental group consists of 76 respondents which allows for greater diversity and better accuracy in measurement, which has proven the online gaming forums to be suitable channels for distribution.

The average number of years the respondents have played League of Legends is six, with some respondents having played upwards of ten years, which would indicate that they have played since League of Legends was first released in 2009. The distribution of skill level is centered around gold and upwards.
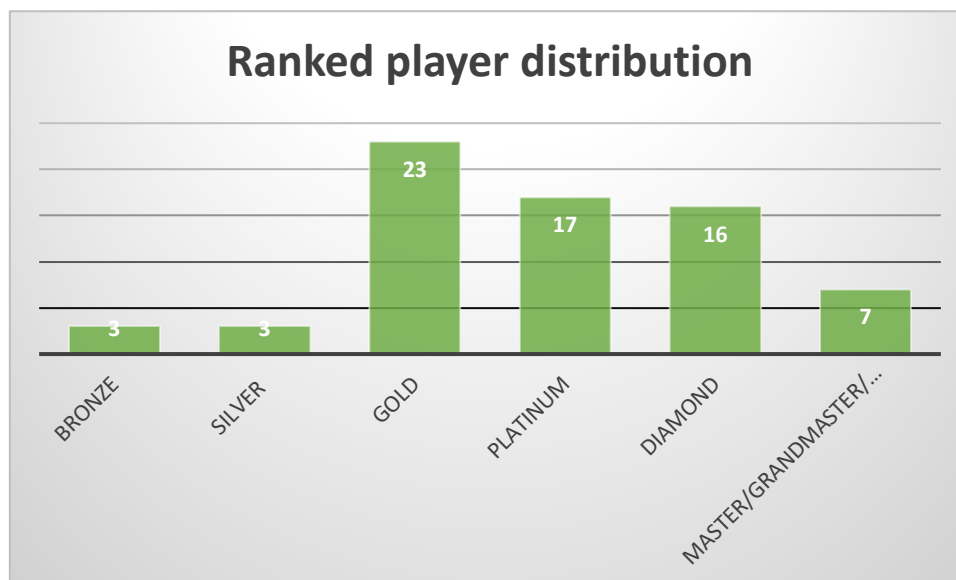
Figure 3.5 Ranked player distribution of N = 69 – source: authors own construction

Not all respondents in the sample indicated a rank, as seven people do not take part in the competitive aspect of the game, thus 69 individuals depicted above. The distribution is interesting when matched against universal rank distributions; the official rank distribution as released by Riot for April 2019 indicates that only 14,4% of all players are in platinum or above (Milella, 2019), whilst 58% of this sample belong in platinum or above. One could consider the legitimacy of the claims when matched against real-world data, but an argument in favor of the sample distribution is the channels used to

collect data. Individuals who are active members of online gaming forums are arguably more devoted to the game which could be reflected in their respective skill level.

Finally, respondents were asked to indicate which roles they predominantly played and could indicate a maximum of two roles. The question allowed for two choices, as players must choose between two of the five roles when playing competitively in League of Legends. To this end, most respondents played the *support* role with 38 answers, whilst the least played role was the top-lane with 19.

Cronbach's alpha

The purpose of measuring Cronbach's alpha, as previously described, is to establish the scale reliability; how accurately does the questions measure what they are supposed to measure (Tavakol & Dennick, 2011). Albeit the MLQ is an established measure of leadership behavior and evidence towards its reliability has been proposed during the literature review, it is important to consider the inter-reliability within this specific sample. The Cronbach's alpha will be calculated for each of the seven factors that comprise the three separate leadership behaviors: transformational, transactional and laissez-faire leadership. Doing so returned the following results:

Table 1.1: Cronbach's alpha of seven factors of leadership behavior	
Variables	Cronbach's alpha
Idealized influence	0,6761
Inspirational motivation	0,5946
Intellectual stimulation	0,7572
Individual consideration	0,5480
Contingent reward	0,6105
Management-by-exception	0,1244
Laissez-faire leadership	0,5254

Important to note that the significance of Cronbach's alpha is heavily reliant on the number of categories; the fewer categories the less significant the alpha. Each leadership factor consists of three questions which can help account for some cases where the alpha isn't overly significant. An acceptable alpha value ranges from 0.6 – 0.95 in accordance with Tavakol & Dennick (2011). However, although six factors hover between 0.5 – 0.75, which is considered acceptable in accordance with the limited categories, one category has an alpha of 0.12 which indicates a weak inter-reliability of the questions. Specifically, the three questions that measure the management-by-

exception factor appear to have a very limited correlation with one another. Tavakol & Dennick (2011) argue that a method to increase the alpha is to compute the correlations between the questions and remove those that correlate poorly. Thus, after computing a correlation matrix (table 1.2) it appears that all three questions are poorly correlated – although the relationship between question 13 and 20 is remarkably poorly correlated – removing a question would not alter the alpha to such an extent that it would become acceptable. Similarly, removing a question would create a two-item scale which, in accordance with Eisinga et al. (2012), is a meaningless scale to measure using Cronbach's alpha.

However, fundamentally only three factors would have a truly acceptable alpha value, which undermines the choice of applying the 6-S MLQ form. To this end, the original 5X MLQ would have been more reliable as there are 45 questions that screen for nine leadership factors, and thus averages two more questions per factor. However, the 5X MLQ form was disregarded due to the data-collection implications that could have followed.

Experimental- and comparison group

Prior to assigning respondents to the experimental- and comparison group, it was necessary to establish commonality between them, to ensure that any potential correlation or effect is actually the cause of the topic at hand, and not individual differences between the individuals in the group, as described by Muijs (2004, s. 21). However, it can be difficult to ensure absolute similarity as I do not have absolute control over the respondents who answer the questionnaire, and there can be a substantial number of variables that influence leadership behavior. Thus, in accordance with Muijs (2004, s. 27), The factors that might carry an influence will be matched across both groups to ensure similarity, which in this case are the demographic factors, such as age, gender, occupational- and educational background.

The two groups, without making any adjustments to the allocation of individuals, are structured accordingly:

Table 1.3: descriptive statistics of demographic variables E-Sports groups

Experimental group and comparison group distributions	No E-Sports experience	League of Legends experience
Gender		
- Male	4 (19%)	69 (92%)
- Female	17 (81%)	6 (8%)
Age		
- Mean	**26**	**26**
Occupation		
- Full time employee	6 (29%)	34 (45%)
- Student	13 (62%)	38 (50%)
- Part-time employee	1 (5%)	1 (1%)
- Out of employment	1 (5%)	2 (3%)
Educational experience		
- Primary/secondary school	0 (0%)	12 (16%)
- Highschool	8 (38%)	31 (41%)
- Bachelor's degree	9 (43%)	23 (30%)
- Master's degree	4 (19%)	9 (12%)

There are three main discrepancies between the two groups. Firstly, and most significantly, is the gender distribution as 81% of the comparison group consists of females, whilst the converse number is 8% in the experimental group. Following the previously established male-dominated E-Sports culture, the result isn't particularly surprising, but can be detrimental to the study, as potential findings might be influenced by the gender distribution and not the topic at hand. Albeit there are methods to be taken to even out the sample – such as *post stratification* – it would be interesting to measure how gender plays into leadership behavior. If there appears to be no significant correlation between gender and leadership behavior, it would not seem necessary to manually restore uniformity, as it would not matter if you're a man or woman, in regard to your perception of your own leadership behavior. The other significant discrepancies can be found in the difference in full-time employees and primary/secondary school graduates.

To test the potential influence of the demographic variables on leadership behavior, with the purpose of understanding which variables must be matched among the two comparison groups, a multiple linear regression analysis will take place, where the non-numerical variables will be coded as dummy variables, in accordance with Muijs (2004, s. 171), and the amount of dummy variables will be the

amount of categories in the variable minus one *(k – 1)*. Albeit multiple linear regression is fundamentally supposed to consider the relationship between continuous variables, it is *robust* enough to apply nominal variables as independent variables, without harming the analysis (Muijs, 2004, s. 170-171). The variables *age, part-time employee, out of employment* will not be considered as they are quite similar in the two groups. The multiple linear regression analysis provided the following results:

Table 1.4: Multiple linear regression analysis for demographic variables influence on leadership behavior

Scale	Gender		Occupation		Master's degree		Bachelor's degree		Highschool graduate	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
II	-0,0426	0,8	0,00216	0,9878	-0,1233	0,6459	-0,08883	0,703	0,069503	0,763
IM	-0,0632	0,7518	-0,01845	0,9127	0,32046	0,3163	0,17057	0,538	0,055136	0,8406
IS	-0,1415	0,5363	-0,20575	0,2862	0,47564	0,1942	0,04743	0,881	0,064602	0,8368
IC	0,13572	0,5324	0,14926	0,4148	0,11962	0,7301	0,1107	0,713	-0,131272	0,6595
CR	0,14869	0,4874	-0,05406	0,7639	0,07897	0,817	0,22997	0,438	-0,038685	0,895
MBE	-0,0737	0,6659	0,08222	0,5673	0,34038	0,2132	0,39625	0,096	0,029385	0,9001
LF	-0,2244	0,2317	-0,20532	0,1937	-0,1983	0,5066	0,38397	0,14	-0,010049	0,9687

*The following indicates the significance levels: * p < .05 ** p < .01*

It is evident that there are no correlations at a 5% significance level, which would indicate that none of the measured variables impact any of the seven factors that comprise the three leadership behaviors, as evidenced in the respective p-values. This further means, that it is unnecessary to change the composition of the groups, as it would not have an impact on the findings of this thesis. However, it is important to note that previous research has found differences in leadership behaviors among men and women; Bass, Avolio & Atwater (1996) found women leaders to be more transformational whilst males were more transactional, which was further evidenced by Eagly & Johannensen-Schmidt (2001, s. 787-788). Thus, albeit there appears to be no correlation in this study, it can't be denied that gender might play a role in leadership behavior.

First hypothesis: *leadership behaviors between experimental- and comparison group*

Once the two groups have been assigned, the first hypothesis will be tested, which is whether engagement in E-Sports – specifically League of Legends – will have an influence on the individuals' own perception of their leadership behavior and will consider the three behaviors of full-range leadership theory, transformational, transactional and laisses-faire leadership. The behaviors consist of seven different factors, constructed on the basis of 21 questions in the 6-S MLQ form, as previously

established. The first test will be an independent sample t-Test to compare the mean value for each leadership factor, between individuals with League of Legends experience, and those with no prior E-Sports experience.

Thus, the first hypothesis will be structured accordingly:

H_1 = *individuals who engage in League of Legends exhibit greater (weaker) perceived leadership behaviors than those who have no prior E-Sports experience*
H_0 = *individuals who engage in League of Legends exhibit the same perceived leadership behaviors as those with no prior E-Sports experience*

Firstly, the word *greater* is defined in terms of frequency. The respondents decided how frequently the perform a given action from 0-4, with 0 *being not at all*, and 4 as *frequently, if not always.* Thus, *individuals* who indicated higher values will therefore exhibit stronger senses of leadership behaviors than those that chose lower values. Secondly, in order to operationalize the above hypothesis, a set of three sub-hypotheses will be fielded:

H_{1a} = *individuals who engage in League of Legends exhibit greater (weaker) perceived transformational leadership behaviors than those who have not engaged in E-Sports*

H_{1b} = *individuals who engage in League of Legends exhibit greater (weaker) perceived transactional leadership behaviors than those who have not engaged in E-Sports*

H_{1c} = *individuals who engage in League of Legends exhibit greater (weaker) perceived laisses-faire leadership behaviors than those who have not engaged in E-Sports*

The independent sample t-test seems most applicable as the mean of the seven factors will be compared between the two groups. Muijs (2004, s. 127-128) argues the t-test finds greatest relevance when the dependent variable is continuous, and the groups compared are a nominal variable. Albeit the dependent variable follows a five-point Likert scale, which would qualify it as an ordinal variable, certain scholars believe that you can use them as *approximately continuous* variables, without

compromising the analysis. (Sullivan & Artino Jr, 2013). Thus, the factors will be used as approximately continuous variables and thus fits the criteria for the t-test.

Table 1.5: t-Test results

	Mean		
Variables	No E-Sports experience	League of Legends experience	t-value
II	3,159	2,662	3,007**
IM	2,635	2,413	1,096
IS	2,460	2,182	1,218
IC	2,857	2,284	2,730**
CR	2,762	2,071	3,436**
MBE	2,778	2,516	1,488
LF	2,492	2,058	2,201*

*The following indicates the significance levels: * p < .05 ** p < .01*

The above t-Test results indicate four correlations at a 5% level of significance, to which there is enough evidence to reject the null hypothesis of the first hypothesis and conclude that there is a statistically significant difference between individuals with League of Legends experience and those with no prior E-Sports experience in relation to their own perception of leadership behavior. However, the correlations stand in stark contrast to those initially theorized as it appears that the individuals with no prior E-Sports experience exhibit stronger leadership behaviors than those who do engage in E-Sports. The comparison group thus scores higher on idealized influence and individualized consideration which are both factors related to transformational leadership, which has been established as the ideal way to lead. Similarly, they also show a higher sense of contingent reward which is considered a trait of transactional leadership. Finally, and equally interesting, the comparison group exhibits stronger laissez-faire leadership, which is the absence of leadership and the least effective way of leading. Thus, individuals with no E-Sports experience exhibit greater transformational, transactional and laissez-faire leadership styles than those who engage in E-Sports.

Second hypothesis: *Leadership behavior and in-game skill level*

The second hypothesis, as theorized in the qualitative section of this thesis, will consider any correlations between the in-game skill level of the individuals, and their respective leadership behaviors. Thus, the second hypothesis is structured accordingly:

H₂ = The skill-level of individuals who play League of Legends influences perceived leadership behaviors

Similarly, the hypothesis will test the seven factors of transformational, transactional and laissez-faire leadership in relation to the indicated skill-level of players. It would seem intuitive to reapply the t-Test as the dependent variable is the approximately continuous variable, leadership behavior, and the independent variable is ordinal, skill-level. However, the t-Test is most applicable when it measures two outcomes, and in this case, there are several subcategories of skill-level: bronze, silver, gold, platinum, diamond and master. Instead, an analysis of variance (ANOVA) will be implemented as it fundamentally operates in a similar fashion of the t-Test – it compares the mean across tested groups - but is able to consider more than two groups. The six individuals that indicated that they have never competed in the League of Legends ranked system have been removed from the test, thus 69 respondents make up the total observations for this test. The ANOVA yielded the following results:

Table 1.6: ANOVA of player skill-level

Variables	Master/grandmaster	Mean					p-value
		Diamond	Platinum	Gold	Bronze/silver		
II	2,857	2,771	2,647	2,522	2,833		0,676
IM	2,667	2,417	2,529	2,435	2,556		0,956
IS	2,571	2,292	2,255	2,116	2,167		0,849
IC	2,524	2,500	2,216	2,290	2,278		0,864
CR	2,381	2,354	1,941	2,130	1,667		0,333
MBE	2,778	2,458	2,471	2,725	2,444		0,602
LF	2,000	2,250	1,824	2,058	2,889		0,069

* p < .05 ** p < .01

Note: number of observations (N) for the following variables: Master/grandmaster, 7, Diamond, 16, Platinum, 17, Gold, 23, Bronze/Silver, 6.

Following the intuitive nature of the labels, *Master/grandmaster* is the highest rank whilst bronze is the lowest rank, and the levels are listed from best-to-worst. The final variables, *bronze* and *silver* have been pooled together following the low amount of observations in each (3), and to decrease the total amount of variables to ensure a greater accuracy from the ANOVA (Muijs, 2004, s. 187-188). Following the p-value for each factor, there are no correlations at a 5% significance level, to which there is insufficient evidence for rejecting the null hypothesis. Accordingly, there is no statistically significant correlation between in-game skill level and perception of one's own leadership behavior;

how good you are at the game will not influence how you perceive your own leadership behavior.

Third hypothesis: *Leadership behavior and in-game roles*

The final hypothesis will consider the relationship between the role players occupy and their perceived leadership behaviors. The hypothesis is structured accordingly:

H₃ = The in-game role a player occupies influences their perceived leadership behaviors

Correspondingly, the hypothesis will be measured through a set of three sub-hypotheses that track transformational (hypothesis 3_a), transactional (hypothesis 3_b) and laissez-faire leadership (hypothesis 3_c). Similar to the second hypothesis the ANOVA seems most intuitive. The dependent variable remains the seven factors of leadership styles which act as approximately continuous variables. The independent variables are the game-roles to which there are five categories and the variable is nominal. Thus, the ANOVA will compare the means across all five groups and provide the statistical evidence to reject either the null or alternative hypothesis. The ANOVA gave the following results:

Table 1.7: ANOVA of in-game roles

Variables	Top	Jungle	Mid-lane	AD-carry	Support	p-value
			Mean			
II	2,759	2,696	2,536	2,833	2,528	0,453
IM	2,574	2,493	2,357	2,667	2,176	0,194
IS	2,481	2,174	2,095	2,621	1,833	0,030*
IC	2,167	2,551	2,357	2,667	1,963	0,015*
CR	2,111	2,391	2,060	2,470	1,685	0,001**
MBE	2,648	2,638	2,631	2,621	2,231	0,085
LF	1,944	1,986	2,071	2,045	2,120	0,948

*p < .05 ** p < .01

Looking at the respective p-values there are three significant correlations between in-game roles and leadership behavior: *Intellectual stimulation, Individual consideration* and *Contingent Reward.* However, the ANOVA does not shed light on wherein the significant differences lie, and in order to illuminate this a *post-hoc* test is necessary. Similarly, the number of simultaneous tests executed will increase the probability of a significant p-value, which further strengthens the need for a post-hoc test, as the correlations found might not actually be significant at a 5% level (Muijs, 2004, s. 192-

193). The *Tukey-Kramer post-hoc* test has been used as it is a good fit for samples with uneven distributions – the amount of people who predominantly play certain game-roles differ - and will explain between which game-roles the significant difference lies (Zaiontz, 2019). The number of groups (5), count (*top 18, jungle 23, mid 28, ad-carry 22, support 36*), and degrees of freedom within the groups (122) are identical across all three post-hoc tests, thus the corresponding critical *q* value that would determine the significance within the groups was *3.92* (table 1.8), thus the significant differences in the ANOVA have been listed below:

Table 1.9: Tukey-Kramer Post-hoc test

Relationship		df	Variable	SE (Standard error)	q-stat	q-crit
Jungle	Support	122	CR	0,145	4,859*	3,92
AD-carry	Support	122	CR	0,147	5,325*	3,92
AD-carry	Support	122	IS	0,185	4,243*	3,92
AD-carry	Support	122	IC	0,159	4,399*	3,92

Thus, there is sufficient evidence to reject the null-hypothesis of hypothesis 3_a and 3_b, whilst there is insufficient evidence to reject the null hypothesis of 3_c. Conclusively, the jungle role will, with 95% certainty following the 5% alpha of the ANOVA and post-hoc test, exhibit stronger *contingent reward* transactional leadership behavior than those players who predominantly play the support role. Similarly, the AD-carry will, with 95% certainty, exhibit greater *contingent reward, intellectual stimulation* and *individualized consideration* than the support players, and thus exhibits greater transformational- and transactional leadership behaviors. Similarly, the support role is the only role wherein there is a significant correlation at a 5% level, as it has the lowest average across all transformational, and transactional factors. Likewise, it also has the highest average laissez-faire rating – albeit not enough to be statistically different – but appears to be the most inefficient role to occupy in terms of perceived leadership behavior. Finally, no evidence was found to suggest that the mid-lane and top-lane game roles have any influence on perceived leadership behavior.

Chapter 5: Discussion

The following chapter will compare the findings of the qualitative- and quantitative analysis to provide a combined answer to the research question:

What links exist between in-game E-Sports characteristics and leadership behavior?

Initially, a discussion into the leadership developmental properties of E-Sports will be take place, drawing primarily on the first hypothesis of the quantitative analysis, and the *leadership development* theory by David V. Day (2001). Secondly, a discussion into the influence of E-Sports competence on leadership behaviors is then conducted, which draws upon the second hypothesis and the *social learning theory* and *self-efficacy* as described by (1977; 2010). Thirdly, a discussion into the game-roles and their influence on leadership behaviors will take place, which leads into the final section of this chapter, which is the discussion of limitations and further perspectives that can be derived from this thesis.

E-Sports as a platform to automated leadership development?

The concept of *intentionality* as proposed by David V. Day (2001) was introduced during the qualitative analysis and aligned itself with the perception of the respondents when it came to leadership development; individuals must be willing to learn, before any development can take place. Thus, the act of engaging in E-Sports is not going to naturally strengthen or develop your leadership competencies but is heavily reliant on the individual. The first hypothesis aligns itself with this notion, as there was no evidence that supported players that E-Sports athletes exhibit stronger transformational- and transactional leadership behaviors than those with no prior E-Sports experience. Conversely, they actually exhibited weaker leadership behaviors, which substantiates the claim that leadership development within E-Sports is not an automatic process, in which players strengthen their capabilities simply through playing the game, and the claim has seen both quantitative- and qualitative evidence supporting it. However, the causality behind the correlation is difficult to pinpoint, as the correlation suggests two outcomes: (a) E-Sports does not strengthen leadership capabilities for all individuals who engage in it, (b) E-Sports is harmful towards leadership capabilities. The second outcome is specifically interesting, as very little previous research has found evidence to suggest E-Sports is harmful towards existing capabilities – especially leadership development – which might suggest a potential fallacy in the comparison group. To this end, the

comparison did only consist of 21 total observations which decreases the accuracy of the measurements and thus increases the probability that a type 1 error has occurred, and that the null hypothesis was falsely rejected (Martinez-Mesa, Gonzales-Chica, Basos, Bonamigo, & Duquia, 2014).

Irrespective of the causality that can be derived from the first hypothesis it doesn't necessarily exclude E-Sports as a platform to develop competencies, but more so speaks into the notion, that the mere fact of engaging in E-Sports will not allow individuals to have stronger perceptions of their leadership behaviors than those who do not engage in E-Sports. E-Sports is perhaps instead mediated by the intentionality of players. However, under what circumstances are players more inclined to intentionally develop their leadership capabilities? The next section will consider some of these scenarios.

Leadership and in-game skill level

Prior to this point, evidence has suggested that learning and leadership development hinges on intentionality; players won't improve if they don't actively put in the effort. However, although it is not an automatic process, E-Sports still offers many of the prerequisites towards learning - observationally through the social interactions among players – and development of leadership – action learning, job assignments and networking experiences. Thus, when is the player motivation high enough for them to actively engage in the learning- and development of leadership capabilities.

The qualitative section theorized that the better a player was at the game, the greater prosocial leadership behaviors (transformational and transactional) they would exhibit. This was both tied into the notion of self-efficacy, that better players would have more faith in their own capabilities and thus be more confident in practicing leadership, but it was also evident that leadership was more significant at the highest level of the game; average players would not be significantly externally rewarded thus decreasing their self-reinforcing systems and reducing motivation for engaging in that task.

The second hypothesis did not provide sufficient evidence to establish any correlations between in-game skill level and perceived leadership behaviors, which stands in contrast with the abovementioned claim. In fact, it appears to be irrelevant how good a player is at the game, and how they consider their own leadership capabilities, as no correlation was found across any of the seven

factors. A further distinction could have been made between casual- and professional E-Sports athletes, as the arguments brought forth by Deficio arose from a professional E-Sports context. Thus, it would have been interesting to consider how current professional E-Sports athletes would compare to the collected sample in the quantitative section.

Game roles

As no evidence towards the relationship between skill-level and perceived leadership behavior was found, perhaps a different relationship could be established between in-game roles and perceived leadership behavior. It appeared unanimously across all interviewed industry experts that the support and jungle role would have the best conditions for leadership practice, and thus would exhibit the strongest prosocial leadership behaviors. This was then tested in the third hypothesis and the findings stood in strong contrast with those of the qualitative section. The support role, which was supposed to exhibit the strongest leadership behaviors, showed the lowest average mean across six of the seven factors, and the four instances wherein there was a correlation at a 5% significant level, the support exhibited the weakest behavior. Then, although not as drastic, the jungle role was non-significant in six of the seven factors but exhibited greater contingent reward than the support role. Conversely, the AD-carry was theorized to showcase some of the weakest leadership behaviors as individuals are more focused on other aspects of the game, which would leave little room for leadership practice, but instead proved to be the dominant group in three of the episodes of statistically significant correlations. It seems difficult to draw a conclusion from such contrasting findings, and instead of centering the attention on the potential takeaway, it seems more appropriate to consider the *why* behind the contrasting nature of the findings.

The primary limitation attached to the chosen methodology that underpins the quantitative section, can help to explain the contrast; the MLQ 6-S followed a self-rater form in which respondents were tasked with defining the frequency at which they believed they executed certain actions, which were indications for specific leadership behaviors. Bass & Avolio (2016) argue in favor of supplementing the MLQ self-rater form with observer feedback, such that data about the individuals own perceived leadership behavior and others perception of their behavior is collected, which allows for a more nuanced and valid outline. They offer two important distinctions about relying solely on self-rater forms: (a) there is often a discrepancy between the way people think they lead, and how other people actually experience the leadership, and (b) self-rater forms do not measure genuine leadership

behaviors but perceived leadership behaviors (Bass & Avolio, 2016, s. 23). Naturally, the two are connected and the perceived leadership behaviors does speak into the actual behavior, but it would be difficult to argue that the two perfectly correlate. John & Robins (1994, s. 216) found evidence to suggest that *self-enhancement bias* was present when individuals are asked to rate their own capabilities. Specifically, individuals will rate themselves more positively than they are perceived by others. Secondly, they highlight how there are significant individual differences, where some individuals will indicate self-perceptions that are far removed from the reality, whilst other individuals will actually provide *self-diminishing* accounts of themselves, which can further skew the findings (John & Robins, 1994, s. 216-217). The positive and negative biases attached to self-perception are most notable when the topic is related to the ego. John & Robins (1994) also conclude that judgements about others are more accurate than self-perceptions, which adds to the applicability of both the self-rater- and observational feedback MLQ versions. Thus, it is not possible to draw all-encompassing conclusions on actual leadership behaviors on the basis of the quantitative section of this study, but approximations into the perceived leadership behaviors remain present.

Finally, the reasoning behind the contradiction between the theorized game-roles and their exhibited leadership behavior can be found when considering the self-diminishing and self-enhancing bias that relies upon individual difference. Although no formal research has investigated the relationship between game roles within multiplayer online battle arena (MOBA) games and the personality traits that draw an individual towards that role. Such potential relationships have been speculated within the League of Legends community; a user on the online platform *Reddit* collected a sample of 7.000 players and compared their predominant role with certain personality trait, and found, among other things, that players who occupied the Attack Damage Carry role were more extrovert than players who occupied the support role (Reddit, 2015). Similarly, an article brought forth by the American media company, *Odyssey,* attempts to match game roles with personality traits and find that the mid-lane and AD-carry both share egotistical traits whilst the support player is often passive (Dobrowolski, 2016). Thus, a potential explanation of the contradictory findings between the qualitative- and quantitative section of this thesis can consist of the individual differences that influence self-perception.

However, the above-mentioned examples are fundamentally speculation and does not constitute the reliable nor valid evidence needed to explain the causality behind the correlations of the third

hypothesis. Nevertheless, it can instead spark an interest in further investigating how different game roles influence actual- and perceived leadership behavior.

Implications of the findings

The findings suggest that E-Sports can be used as a platform for leadership development, but it hinges on intentionality and the process in which the capabilities are developed or strengthened are not automatic. Specifically, evidence was found to suggest differences in perceived leadership behavior between in-game roles; individuals, organizations etc. can use the different game-roles to develop or strengthen certain aspects of their leadership behavior, or, at the very least, strengthen their self-perception of those behaviors. Playing different game-roles allows both for new *job assignments* which, as described by David V. Day (2001), is one of the primary drivers of leadership development, and evidence found specifically occupying the AD-carry role would allow the individual to increase their perception of certain leadership behaviors, namely (a) the ability to help develop the potential of each individual follower (*individualized consideration*), (b) the ability to encourage followers to question- and improve the current ways of solving problems (*intellectual stimulation*), and the ability to clearly clarify the requirements and rewards of follower performance (*contingent reward*). Thus, the findings *can* be relevant for entities outside of a pure E-Sports setting, as the perception of the abovementioned behaviors can be increased through the occupation of specific game-roles. However, as previously stated, the findings contradict each other, which makes it difficult to locate which game-roles would cause which fluctuations in perceived leadership behavior. Similarly, the *action learning* aspect of leadership development questions the transferability of leadership capabilities into the real-world.

Chapter 6: Conclusion

The main aim of this thesis was to contribute to the prosocial body of E-Sports literature or, at the very least, raise awareness towards the undeveloped field of leadership within E-Sports. Contrasting findings were confirmed that both attribute to the developmental capabilities of E-Sports, along with statistical evidence that illuminated the shortcomings and limitations of E-Sports in leadership development. The significant findings include:

Firstly, the thesis found qualitative evidence that leadership development can be possible through E-Sports as the players are constantly presented with *networking experiences* following the stream of new players with whom they engage with in every new game they play. The social nature of these experiences also allows for *observational learning* to take place, wherein players observe and acquire information about new behaviors. Similarly, the different game-roles in the game allow for different *job assignment* that challenges players and allows for growth of new capabilities. However, leadership development within E-Sports is not an automatic process but hinges on *intentionality,* players must actively try to better their leadership capabilities if they want to be developed. To this end, the *support* and *jungle* role are hypothetically the best roles that would allow for leadership development, but ultimately the *self-efficacy* and *self-reinforcing systems* are the determining factors that enable a player to actively practice leadership. The individual player's competence at the game was also theorized to be a determining factor in their leadership development; the better the player is at the game, the stronger leadership behaviors he should exhibit.

Secondly, in the quantitative analysis the thesis found a negative correlation between E-Sports experience and perceived leadership behavior. Specifically, individuals with no prior E-Sports experience exhibited stronger self-perceptions of transformational- transactional and laissez-faire leadership behaviors. Furthermore, no statistically significant correlations were found between in-game skill level and perceived leadership behavior, which stands in contrast with the qualitative findings. However, statistically significant evidence was found that suggested a correlation between in-game roles and perceived leadership behavior, but the *support* role exhibited the lowest transformational- and transactional leadership behaviors, which also stands in stark contrast with the qualitative findings.

Finally, this thesis contributes to an underdeveloped and novel relationship between the interplay of leadership and E-Sports, and although the findings were conflicting it encourages further research into a complex and exciting field, specifically with attention to the leadership developmental properties of E-Sports and how it can be used by entities outside of an E-Sports setting.

Bibliography

Alvesson, M., & Spicer, A. (2011). *METAPHORS WE LEAD BY.* London & New York: Routledge Taylor & Francis Group.

Antonakis, J., Avolio, B. J., & Sivasubramaniam, N. (2003). Context and leadership: an examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *The Leadership Quarterly*, s. 261-295.

Avolio, B. J., & Bass, B. M. (01. February 2019). *Multifactor Leadership Questionnaire*. Hentet fra Mindgarden: https://www.mindgarden.com/16-multifactor-leadership-questionnaire

Avolio, B. J., Kahai, S., & Dodge, G. E. (2000). E-leadership: Implications for theory, research, and practice. *The Leadership Quarterly*, pp. 615-668.

Bandura, A. (1977). *Social Learning Theory.* Englewood Cliffs: Prentice-Hall.

Bandura, A. (2010). Self-efficacy. *The Corsini encyclopedia of psychology, 1-3*, s. 1-65.

Bass, B. (1981). Stogdill's handbook of leadership: A survey of theory and research. *Journal of Policy Analysis and Management*, p. 856.

Bass, B. (1990). Toward a meeting of minds. *Leadership quarterly 1*.

Bass, B. M. (1985). *Leadership and performance beyond expectation.* New York: Free Press.

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research and managerial applications. .* New York: Free Press.

Bass, B. M., Avolio, B. J., & Atwater, L. (January 1996). The Transformational and Transactional Leadership of Men and Women. *Applied Psychology*, s. 5-34.

Bass, B. M., & Avolio, B. J. (July 2016). *Multifactor leadership questionnaire: self-only feedback report*. Hentet fra Mindgarden.com: https://www.mindgarden.com/index.php?controller=attachment&id_attachment=94

Bass, B., & Avolio, B. (1995). *MLQ multifactor leadership questionnaire.* Mind Garden.

Bekhet, A. K., & Zauszniewski, J. A. (November 2012). Methodological Triangulation: An Approach to Understanding Data. *Nurse Researcher*, s. 40-43.

Bhattacherjee, A. (2012). *Social Science Research: Principles, Methods, and Practices.* South Florida: Scholar Commons.

Brier, S. (2012). *Informationsvidenskab.* Frederiksberg: Samfundslitteratur.

Bryman, A. (2004). *Social research methods.* New York: Oxford University Press.

Bryman, A., & Bell, E. (2007). *Business research methods.* Oxford: Oxford University Press.

Buffee, N. (07. March 2017). *The impact of being toxic in esports*. Hentet fra Esportsinsider:
https://esportsinsider.com/2017/03/impact-toxic-esports/

Burns, J. (1978). *Leadership.* New York: Harper & Row.

Burton, L., & Peachy, J. (2009). Transactional or transformational? leadership preferences of
division III athletic administrators. . *Journal of Intercollegiate Sport*, s. 245-249.

Carless, S. A. (December 1998). Gender Differences in Transformational Leadership: An
Examination of Superior, Leader, and Subordinate Perspectives. *Sex Roles*, s. 887-902.

Chen, L.-T., Chen, C.-W., & Chen, C.-Y. (February 2010). Are educational background and gender
moderator variables for leadership, satisfaction and organizational commitment? *African
Journal of Business Management* , s. 248-261.

Chiang, O. (19. July 2010). *How Playing Videogames Can Boost Your Career*. Hentet fra Forbes:
https://www.forbes.com/2010/07/19/career-leadership-strategy-technology-
videogames.html#31163e713363

Chouadria, A. (14. June 2018). *Denmark still most represented country in the EU LCS*. Hentet fra
Cybersport: https://cybersport.com/post/denmark-still-most-represented-country-in-the-
eu-lcs

Chung, J., & Monroe, G. S. (2003). Exploring Social Desirability bias. *Journal of Business Ethics*, s.
291-302.

Cleverism. (20. May 2015). *How Riot Games Started and Grew League of Legends*. Hentet fra
Cleverism: https://www.cleverism.com/how-riot-games-started-and-grew-league-of-
legends/

Cocke, T. (12. September 2018). *Esports Essentials: League of Legends and the Rise of MOBA
Esports*. Hentet fra Esportobserver: https://esportsobserver.com/esports-essentials-
league-of-legends/

Cohen, W. A. (1990). *The Art of the Leader.* Englewood Cliffs: Prentice Hall Direct.

Creswell, J. W., & Miller, D. L. (2000). Determining Validity in Qualitative Inquiry. *Theory Into Practice*, s. 124-130.

Crook, J. (February 2019). *Fornite goes big on esports for 2019 with $100 million prize pool*. Hentet fra Techcrunch: https://techcrunch.com/2019/02/22/fortnite-goes-big-on-esports-for-2019-with-100-million-prize-pool/?guccounter=1&guce_referrer_us=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_cs=ffuP84LgITgiiTi4VYcd9A

DailyEsports. (14. November 2017). *The Incredible Rise of Esports*. Hentet fra DailyEsports.gg: https://www.dailyesports.gg/incredible-rise-esports/

Day, D. V. (2001). Leadership development: A Review in Context. *Leadership Quarterly*, s. 581–613.

Day, D. V., & Antonakis, J. (2018). *The Nature of Leadership - Third Edition.* Thousand Oaks, California: SAGE Publications.

Den Hartog, D. N., Van Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal (if Occii[iattonal and Organizational Psycholo*, s. 19-34.

Derue, S. D., Nahrgang, J. D., Wellman, N., & Humphrey, S. E. (2011). TRAIT AND BEHAVIORAL THEORIES OF LEADERSHIP: AN INTEGRATION AND META-ANALYTIC TEST OF THEIR RELATIVE VALIDITY. *Personnel Psychology*, s. 7-52.

Dobrowolski, A. (22. February 2016). *What Your League Of Legends Role Says About You - Do you fit the stereotype of your role?* Hentet fra Theodysseyonline.com: https://www.theodysseyonline.com/what-your-league-of-legends-role-says-about-you

Ducheneaut, N., & Moore, R. J. (2005). More than just 'XP': learning social skills in massively multiplayer online games. *Interactive Technology and Smart Education*, s. 89-100.

Eagly, A. H., & Johannesen-Schmidt, M. (2001). The leadership styles of women and men. *Journal of Social Issues*, s. 781-797.

EF EPI. (2014). *Regions/Europe/Denmark*. Hentet fra EF-danmark.dk: https://www.ef-danmark.dk/epi/regions/europe/denmark/

Eichenbaum, A., Bavelier, D., & Green, S. C. (Fall 2014). Video Games - Play that can do serious good. *American Journal of Play*, s. 50-72.

ESPN. (19. September 2017). *Average age in esports vs. major sports*. Hentet fra ESPN: http://www.espn.com/esports/story/_/id/20733853/the-average-age-esports-versus-nfl-nba-mlb-nhl

Ferguson, C. J. (July 2007). Evidence for publication bias in video game violence effects literature: A meta-analytic review. *Aggression and Violent Behavior*, s. 470-482.

Freeman, G. Z., & Wohn, D. Y. (15-18. October 2017). Social Support in eSports: Building Emotional and Esteem Support from Instrumental Support Interactions in a Highly Competitive Environment. *CHI PLAY*, s. 435-447.

Galesic, M., & Bosnjak, M. (28. May 2009). Effects of Questionnaire Length on Participation and Indicators of Response Quality in a Web Survey. *Public Opinion Quarterly*, s. 349-360.

GameDesigning. (12. May 2018). *How Gaming Technology Has Improved*. Hentet fra Gamedesigning: https://www.gamedesigning.org/gaming/advances-in-technology/

Gamereactor.dk;. (01. February 2019). *Forum*. Hentet fra Gamereactor.dk: https://www.gamereactor.dk/forum/?forum=5

Gaming.dk;. (15. February 2019). *Home*. Hentet fra Gaming.dk: https://gaming.dk/

Gardner, J. (1965). The antileadership vaccine. *Annual Report, Carnegie Corporation of New York*, s. 3-12.

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The qualitative report*, s. 597-606.

GoldenGuardians. (01. March 2019). *Home*. Hentet fra Goldenguardians: https://www.goldenguardians.com/

Guo, Z., Cahalane, M., & Carbonie, A. (2018). "Positive Personal Development through eSports". *Pacis*, s. 125.

Hackman, J. R., & Wageman, R. (2007). Asking the right questions about leadership Discussion and conclusions. *American Psychologist*, s. 43-48.

Hamari, J., & Sjoblom, M. (2017). *What is eSports and why do people watch it?* Tampere: TamPub.

Højbjerg, H. (2013). *Videnskabsteori i samfundsvidenskaberne.* Samfundslitteratur.

Heron, J. (1996). *Co-operative Inquiry: Research into the Human Condition.* London: Sage.

Holloway, I. (1997). *Basic Concepts for qualitative research.* London: Blackwell Science.

Hunt, J. G. (1999). Transformational/charismatic leadership's transformation of the field: an historical essay. *The Leadership Quarterly*, s. 129-144.

Hurst, T. (12. February 2018). *Esports Prize Pools: $155.9M (2018)*. Hentet fra Medium.com: https://medium.com/konvoy/esports-prize-pools-155-9m-2018-ce1ff44bd41

Hyun, W. (13. December 2018). *The Importance of Esports Coaches in League of Legends: Their Role within a Team*. Hentet fra Invenglobal.com: https://www.invenglobal.com/articles/7010/the-importance-of-esports-coaches-in-league-of-legends-their-role-within-a-team

International Bureau of Education. (2019). *Most influential theories of learning*. Hentet fra Ibe.unesco.org: http://www.ibe.unesco.org/en/geqaf/annexes/technical-notes/most-influential-theories-learning

Jack, E. P., & Raturi, A. S. (2006). Lessons learned from methodological triangulation in management research. *Management Research News*, s. 345-357.

Jang, Y., & Ryu, S. (2011). Exploring game experiences and game leadership in massively multiplayer online role-playing games. *British Journal of Educational Technology*, s. 616-623.

Jeffery, C. R. (1990). *Criminology: An Interdisciplinary Approach.* Englewood Cliffs: Prentice Hall.
Jick, T. D. (December 1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly*, s. 602-611.

John, O. P., & Robins, R. W. (1994). Accuracy and Bias in Self-Perception: Individual Differences in Self-Enhancement and the Role of Narcissism. *Journal of Personality and Social Psychology*, s. 206-219.

Joppe, M. (14. March 2019). The Research Process. *Obtained*.

King, A. S. (April-June 1990). Evolution of Leadership Theory. *Vikalpa*, s. 43-54.

Krosnick, J. A., & Presser, S. (2010). Question and Questionnaire Design. *Handbook of Survey Research*, s. 263-313.

Kumle, J., & Kelly, N. J. (2000). Leadership vs Management. *Supervision*, s. 8-10.

Kvale, S., & Brinkmann, S. (2009). *InterView Introduktion til et håndværk 2. udgave* . København: Hans Reitzel Forlag.

LeagueofGraphs. (01. April 2019). *Rank Distribution*. Hentet fra League of Graphs: https://www.leagueofgraphs.com/rankings/rank-distribution

LeagueofLegends. (01. February 2019). *Items*. Hentet fra Na.LeagueofLegends.com: https://na.leagueoflegends.com/en/game-info/items/

LeagueofLegends. (01. February 2019). *What is League of Legends?* Hentet fra Na.LeagueofLegends.com: https://na.leagueoflegends.com/en/game-info/get-started/what-is-lol/

Lowe, K. B., Kroeck, G. K., & Sivasubramaniam, N. (1996). Effectiveness Correlates of Transformational and Transactional Leadership: A Meta-Analytic Review of The MLQ Literature. *The Leadership Quarterly*, s. 385-415.

Maccoby, M. (2000). Journal of Intercollegiate Sport, 2(2),. *Harvard Business Review*, s. 1-10.

Maccoby, M. (2000). Understanding the difference between management and leadership. *Research Technology Management*, s. 57-59.

Malhotra, N. K., Nunan, D., & Birks, D. F. (2012). *Marketing Research - An applied approach.* Pearson Education.

Martinez-Mesa, J., Gonzales-Chica, D., Basos, J. L., Bonamigo, R. R., & Duquia, R. P. (July-August 2014). *Sample size: how many participants do I need in my research?* Hentet fra NCBI.NLM.NIH.GOV: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4148275/

Milella, V. (April 2019). *LEAGUE OF LEGENDS RANK DISTRIBUTION IN SOLO QUEUE - APRIL 2019.* Hentet fra ESportstales.com: https://www.esportstales.com/league-of-legends/rank-distribution-percentage-of-players-by-tier

Miles, M. B., & Huberman, M. A. (1994). *Qualitative Data Analysis: An Expanded Sourcebook.* New Bury Park: Sage.

Muenjohn, N., & Armstrong, A. (04. September 2008). Evaluating the structural validity of the multifactor leadership questionnaire (MLQ), capturing the leadership factors of transformational-transactional leadership. *Contemporary Management Research*, s. 3-14.

Muijs, D. (2004). *Doing Quantitative Research in Education with SPSS.* London: SAGE Publications.

Newstrom, J. W., & Davis, K. (2002). *Organizational Behavior: Human Behavior at Work.* New York: Mcgraw-Hill.

Nielsen. (05. October 2017). *U.S. GAMES 360 REPORT: 2017*. Hentet fra Nielsen.com: https://www.nielsen.com/us/en/insights/reports/2017/us-games-360-report-2017.html?afflt=ntrt15340001&afflt_uid=SiEV8AfP0Hc.HQemMk2s0QxM5pwEeUCzTyQfma344PiI&afflt_uid_2=AFFLT_ID_2

Nygaard, C. (2012). *Samfundsvidenskabelige analysemetoder.* Frederiksberg: Samfundslitteratur.
Paris Saint-Germain. (01. March 2019). *Teams*. Hentet fra PSG-esports: https://psg-esports.com/teams/

Perez, M. (03. April 2018). *How Toxicity Hurts The Future Of Esports And Twitch*. Hentet fra Forbes: https://www.forbes.com/sites/mattperez/2018/04/03/how-toxicity-hurts-the-future-of-esports-and-twitch/

Pickard, J. (25. September 2017). *Better yourself with these tips from League pros*. Hentet fra Redbull: https://www.redbull.com/us-en/league-of-legends-top-tips-to-improve

Ponterotto, J. G. (01. 09 2006). Brief Note on the Origins, Evolution, and Meaning of the Qualitative Research Concept Thick Description. *The Qualitative Report*, s. 538-549.

Porter, M. (16. April 2019). *DEFICIO ON ORIGEN'S SPRING SPLIT, AND AIMS FOR THE SUMMER*. Hentet fra EU.lolesports.com: https://eu.lolesports.com/en/articles/deficio-on-origen-spring-split-and-aims-for-the-summer

Ramboll. (2019). *Survey-Xact*. Hentet fra Survey-Xact.dk: https://www.survey-xact.dk/Login

Reddit. (2015). *[Survey Results] Main Role vs Myers-Briggs Personality Type*. Hentet fra Reddit.com/LeagueofLegends/: https://www.reddit.com/r/leagueoflegends/comments/2ylnlz/survey_results_main_role_vs_myersbriggs/

Reed, D. W. (30. Januar 2019). *The Scientific Method*. Hentet fra Generalhorticulture: http://generalhorticulture.tamu.edu/LearningCommunity/ScientificMethod.htm

Reeves, B., & Malone, T. (2007). *Leadership in Games and at Work: Implications for the Enterprise of Massively Multiplayer Online Role-playing Games* . Palo Alto: Seriosity.

Reeves, B., Malone, T. W., & O'Driscoll, T. (2008). Leadership's Online Labs. *Harvard Business Review*, s. 58-66.

Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2007). *Cross-Sectional Versus Longitudinal Survey Research: Concepts, Findings, and Guidelines.* Pennsylvania: Institute for the Study of Business Markets .

Robie, C., Johnson, K. M., Nilsen, D., & Hazucha, J. F. (2001). The right stuff: understanding cultural differences in leadership performance. *Journal of Management development*, s. 639-649.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students.* Pearson.

Saxtorff, M. (22. March 2018). *Leadership in eSports*. Hentet fra Tricas.dk: http://tricas.dk/leadership-in-esports/

Schuman, H., & Presser, S. (1981). *Questions and Answers in Attitude Surveys Experiments on Question Form, Wording, and Context.* New York: Academic Press.

Statista. (2015). *Average age of selected eSports games players in North America in 2015 (in years)*. Hentet fra Statista.com: https://www.statista.com/statistics/579779/age-esports-games-players/

Statista. (2016). *Share of individuals playing eSports games in Denmark in 2016, by gender and age*. Hentet fra Statista.com: https://www-statista-com.esc-web.lib.cbs.dk:8443/statistics/673708/share-of-individuals-playing-esports-games-in-denmark-by-gender-and-age/

Statista. (28. February 2018). *Share of households with internet access in Denmark from 2007 to 2018*. Hentet fra Statista.com: https://www.statista.com/statistics/377663/household-internet-access-in-denmark/

Statista. (10. March 2019). *eSports market revenue worldwide from 2012 to 2022 (in million U.S. dollars)*. Hentet fra Statista: https://www.statista.com/statistics/490522/global-esports-market-revenue/

Statista. (2019). *Value of the gamification market worldwide in 2016 and 2021 (in billion U.S. dollars)*. Hentet fra Statista: https://www.statista.com/statistics/608824/gamification-market-value-worldwide/

Statista. (2019). *Value of the global video games market from 2012 to 2021 (in billion U.S. dollars)*. Hentet fra Statista: https://www.statista.com/statistics/246888/value-of-the-global-video-game-market/

Stebbins, R. A. (2001). Exploratory Research in the Social Sciences. *SAGE publications*.

Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management Decision*, s. 551-555.

Sullivan, G., & Artino Jr, A. (2013). Analyzing and Interpreting Data from Likert-Type Scales. *Journal of Medical Education*, s. 541-542.

Tang, W. (26. July 2018). Understanding Esports from the Perspective of Team Dynamics. *TheSportJournal*.

Tavakol, M., & Dennick, R. (June 2011). Making Sense of Cronbach's Alpha. *International Journal of Medical Education*, s. 53-55.

Taylor, T. (2015). *Raising the Stakes: E-Sports and the Professionalization of Computer Gaming.* massachusetts: The MIT Press.

Valee, L. (17. December 2018). *SHOTCALLING: THE ART OF DECISION-MAKING*. Hentet fra eu.lolesports.com: https://eu.lolesports.com/en/articles/Shotcalling-the-art-of-decision-making

Wolinski, S. (03. June 2010). *What is Transformational Leadership?* Hentet fra Managementhelp: https://managementhelp.org/blogs/leadership/2010/06/03/what-is-transformational-leadership/

WomenInGames. (01. April 2019). *Women in Esports*. Hentet fra Womeningames: http://www.womeningames.org/women-in-esports/

Yee, N. (2006). *The Demographics, Motivations and Derived Experiences of Users of Massively Multi-User Online Graphical Environments.* Stanford: Stanford University.

Zaiontz, C. (2019). *Tukey-Kramer Test*. Hentet fra Real-statistics: http://www.real-statistics.com/one-way-analysis-of-variance-anova/unplanned-comparisons/tukey-kramer-test/

Appendices

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Overview of League of Legends game-roles and map

Figure 2.1:
Saunders' research onion
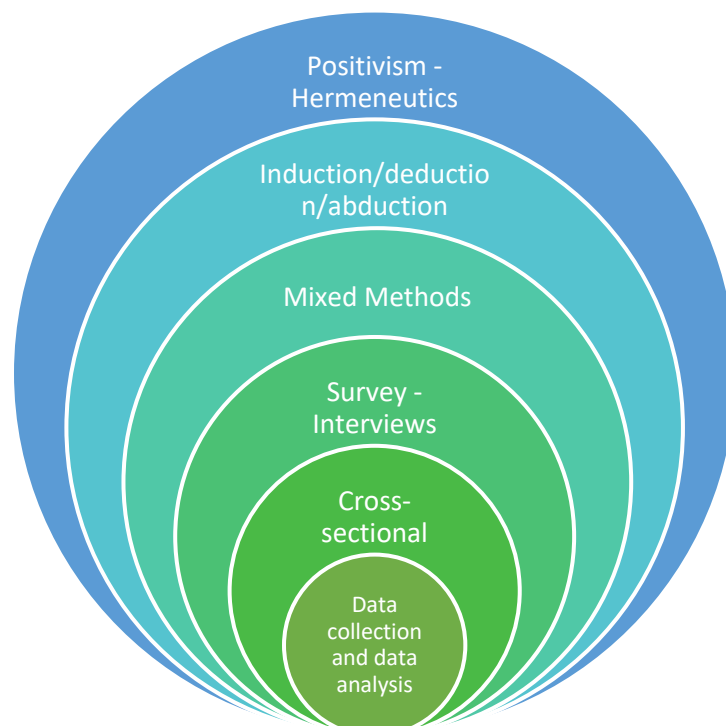
Figure 3.1:
Gender Frequency Distribution

Gender frequency distribution

- 78% Male respondents
- 22% Female respondents
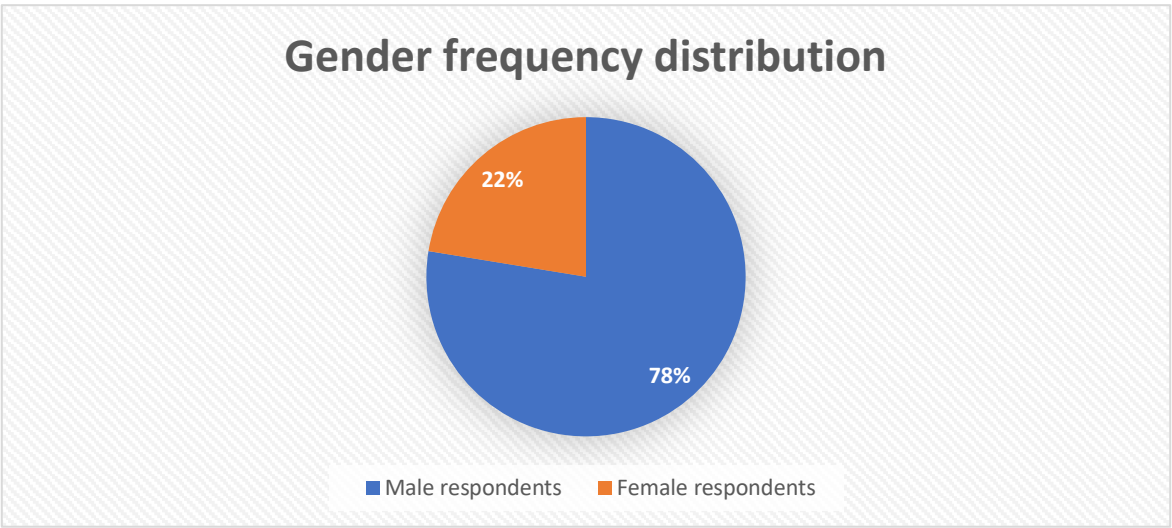
Figure 3.2:
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Figure 3.3, 3.4:
Occupational- and demographic frequency distribution

Occupation frequency distribution

Education frequency distribution

Figure 3.5:
Ranked player distribution – N = 69

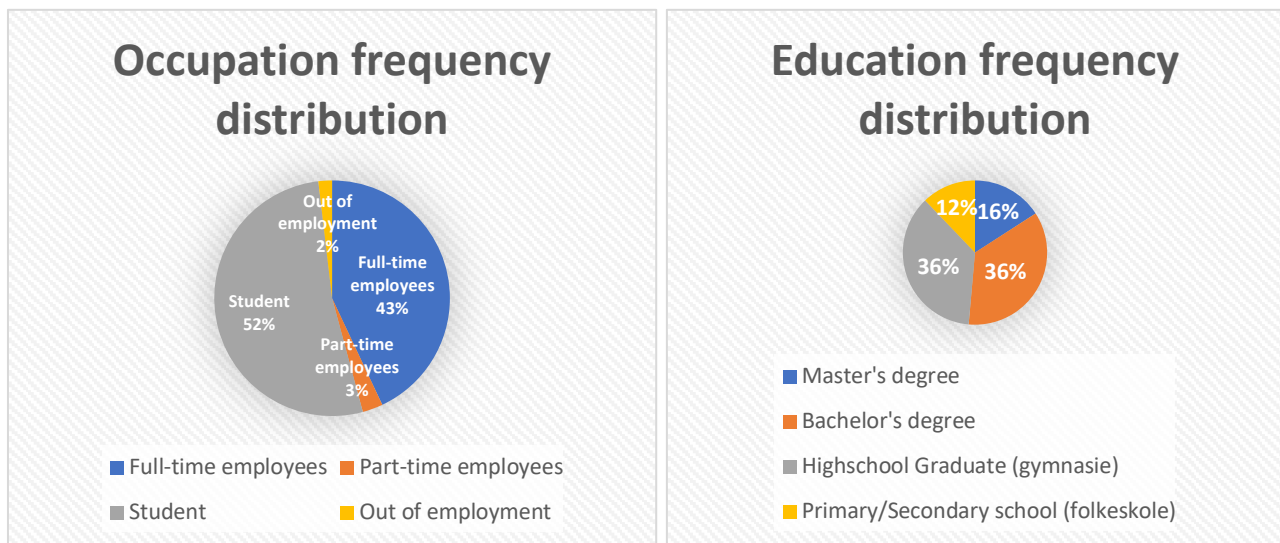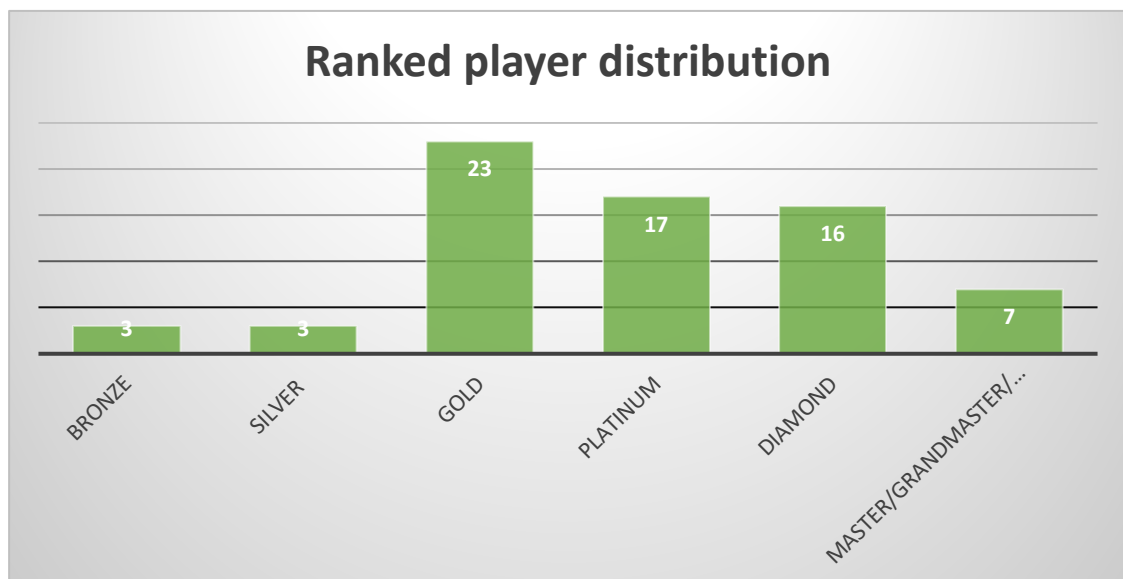**Ranked player distribution**

List of Tables

Table 1.1:
Cronbach's alpha

Table 1.1: Cronbach's alpha of seven factors of leadership behavior	
Variables	*Cronbach's alpha*
Idealized influence	**0,6761**
Inspirational motivation	0,5946
Intellectual stimulation	**0,7572**
Individual consideration	0,5480
Contingent reward	**0,6105**
Management-by-exception	*0,1244*
Laissez-faire leadership	0,5254

Table 1.2:
Management-by-exception correlation matrix

Management-by-exception correlation matrix

	I am satisfied when others meet agreed-upon standards	*I tell others the standards they have to know to carry out their work*	*As long as things are working, I do not try to change anything*
I am satisfied when others meet agreed-upon standards	1		
I tell others the standards they have to know to carry out their work	0,247799101	1	
As long as things are working, I do not try to change anything	0,162049067	0,066897731	1

Demographic comparison between experimental- and comparison group.

Table 1.3: descriptive statistics of demographic variables E-Sports groups

Experimental group and comparison group distributions	No E-Sports experience	League of Legends experience
Gender		
- Male	4 **(19%)**	69 **(92%)**
- Female	17 **(81%)**	6 **(8%)**
Age		
- Mean	**26**	**26**
Occupation		
- Full time employee	6 **(29%)**	34 **(45%)**
- Student	13 **(62%)**	38 **(50%)**
- Part-time employee	1 **(5%)**	1 **(1%)**
- Out of employment	1 **(5%)**	2 **(3%)**
Educational experience		
- Primary/secondary school	0 **(0%)**	12 **(16%)**
- Highschool	8 **(38%)**	31 **(41%)**
- Bachelor's degree	9 **(43%)**	23 **(30%)**
- Master's degree	4 **(19%)**	9 **(12%)**

Table1.4:

Linear regression analysis of dependent variables, leadership behavior, and independent variables, gender, occupation, education

Scale	Gender Coefficient	P-value	Occupation Coefficient	P-value	Master's degree Coefficient	P-value	Bachelor's degree Coefficient	P-value	Highschool graduate Coefficient	P-value
II	-0,0426	0,8	0,00216	0,9878	-0,1233	0,6459	-0,08883	0,703	0,069503	0,763
IM	-0,0632	0,7518	-0,01845	0,9127	0,32046	0,3163	0,17057	0,538	0,055136	0,8406
IS	-0,1415	0,5363	-0,20575	0,2862	0,47564	0,1942	0,04743	0,881	0,064602	0,8368
IC	0,13572	0,5324	0,14926	0,4148	0,11962	0,7301	0,1107	0,713	-0,131272	0,6595
CR	0,14869	0,4874	-0,05406	0,7639	0,07897	0,817	0,22997	0,438	-0,038685	0,895
MBE	-0,0737	0,6659	0,08222	0,5673	0,34038	0,2132	0,39625	0,096	0,029385	0,9001
LF	-0,2244	0,2317	-0,20532	0,1937	-0,1983	0,5066	0,38397	0,14	-0,010049	0,9687

*The following indicates the significance levels: * $p < .05$ ** $p < .01$*

Table 1.5:

t-test results between experimental- and comparison group, leadership behaviors

	Table 1.3: t-Test results		
	Mean		
Variables	*No E-Sports experience*	*League of Legends experience*	*t-value*
II	3,159	2,662	3,007**
IM	2,635	2,413	1,096
IS	2,460	2,182	1,218
IC	2,857	2,284	2,730**
CR	2,762	2,071	3,436**
MBE	2,778	2,516	1,488
LF	2,492	2,058	2,201*

The following indicates the significance levels: * p < .05 ** p < .01

Table1.6:

ANOVA of player-skill level

	Table 1.6: ANOVA of player skill-level					
	Mean					
Variables	*Master/grandmaster*	*Diamond*	*Platinum*	*Gold*	*Bronze/silver*	*p-value*
II	2,857	2,771	2,647	2,522	2,833	0,676
IM	2,667	2,417	2,529	2,435	2,556	0,956
IS	2,571	2,292	2,255	2,116	2,167	0,849
IC	2,524	2,500	2,216	2,290	2,278	0,864
CR	2,381	2,354	1,941	2,130	1,667	0,333
MBE	2,778	2,458	2,471	2,725	2,444	0,602
LF	2,000	2,250	1,824	2,058	2,889	0,069

* p < .05 ** p < .01

Table 1.7:
ANOVA of in-game roles

Table 1.7: ANOVA of in-game roles

Variables	Mean Top	Jungle	Mid-lane	AD-carry	Support	p-value
II	2,759	2,696	2,536	2,833	2,528	0,453
IM	2,574	2,493	2,357	2,667	2,176	0,194
IS	2,481	2,174	2,095	2,621	1,833	0,030*
IC	2,167	2,551	2,357	2,667	1,963	0,015*
CR	2,111	2,391	2,060	2,470	1,685	0,001**
MBE	2,648	2,638	2,631	2,621	2,231	0,085
LF	1,944	1,986	2,071	2,045	2,120	0,948

*$p < .05$ **$p < .01$

Table 1.8:
Critical values for the Tukey Q Test

Error df	Number of Groups (Treatments)								
	2	3	4	5	6	7	8	9	10
1	17.97	26.98	32.82	37.08	40.41	43.12	45.40	47.36	49.07
2	6.08	8.33	9.80	10.88	11.74	12.44	13.03	13.54	13.99
3	4.50	5.91	6.82	7.50	8.04	8.48	8.85	9.18	9.46
4	3.93	5.04	5.76	6.29	6.71	7.05	7.35	7.60	7.83
5	3.64	4.60	5.22	5.67	6.03	6.33	6.58	6.80	6.99
6	3.46	4.34	4.90	5.30	5.63	5.90	6.12	6.32	6.49
7	3.34	4.16	4.68	5.06	5.36	5.61	5.82	6.00	6.16
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77	5.92
9	3.20	3.95	4.41	4.76	5.02	5.24	5.43	5.59	5.74
10	3.15	3.88	4.33	4.65	4.91	5.12	5.30	5.46	5.60
11	3.11	3.82	4.26	4.57	4.82	5.03	5.20	5.35	5.49
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.39
13	3.06	3.73	4.15	4.45	4.69	4.88	5.05	5.19	5.32
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20
16	3.00	3.65	4.05	4.33	4.56	4.74	4.90	5.03	5.15
17	2.98	3.63	4.02	4.30	4.52	4.70	4.86	4.99	5.11
18	2.97	3.61	4.00	4.28	4.49	4.67	4.82	4.96	5.07
19	2.96	3.59	3.98	4.25	4.47	4.65	4.79	4.92	5.04
20	2.95	3.58	3.96	4.23	4.45	4.62	4.77	4.90	5.01
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92
30	2.89	3.49	3.85	4.10	4.30	4.46	4.60	4.72	4.82
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.73
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65
120	2.80	3.36	3.68	3.92	4.10	4.24	4.36	4.47	4.56
∞	2.77	3.31	3.63	3.86	4.03	4.17	4.29	4.39	4.47

Table 1.9:
Tukey-Kramer Post-hoc test

Table 1.7: Tukey-Kramer Post-hoc test

Relationship		*df*	Variable	*SE* (Standard error)	*q-stat*	*q-crit*
Jungle	Support	122	*CR*	0,145	4,859*	3,92
AD-carry	Support	122	*CR*	0,147	5,325*	3,92
AD-carry	Support	122	*IS*	0,185	4,243*	3,92
AD-carry	Support	122	*IC*	0,159	4,399*	3,92

Quantitative appendix:

Questionnaire structure

Declaration: *This survey is part of my dissertation at the Copenhagen Business School. The purpose is to explore leadership within those individuals that engage in E-Sports. However, those that do not practice E-Sports are equally welcome to take part in the survey.*

The collected data will only be used for academic purposes and all answers are anonymous.

Thank you for your time and cooperation
Vidak Rajovic

Are you playing - or have you previously played - the online videogame 'League of Legends'?

☐ Yes

☐ No

Have you played any other online multiplayer game for more than two years? (if yes, what game?)

☐ Yes_____

☐ No

Gender

☐ Male

☐ Female

Age (indicate in whole number)

_____

Occupation

☐ Full-time employee

☐ Part-time employee

☐ Out of employment

☐ Student

☐ Retired

☐ Other_____

Educational Background

☐ Primary/Secondary school (folkeskole)

☐ Highschool Graduate (gymnasie)

☐ Bachelor's degree

☐ Master's degree

☐ Doctorate degree

☐ Other_____

League of Legends in game behavior

-

How many years have you played League of Legends (Indicate in whole number)

_____

How many League of Legends games do you play per week? (If you are currently inactive, how many did you usually play per week?

☐ Between 0-5

☐ 6-10

☐ 11-15

☐ 16-20

☐ More than 20

Which game role(s) do you most often play? (Maximum two options)

☐ Toplane

☐ Jungle

☐ Midlane / AP Carry

☐ Attack Damage carry (AD Carry)

☐ Support

What is your highest achieved rank?

☐ Master/Grandmaster/Challenger

☐ Diamond

☐ Platinum

☐ Gold

☐ Silver

☐ Bronze

☐ I don't play ranked

This is the final section of this survey - you will be asked to indicate how often you do the following statements. The questions are unrelated to E-Sports and relate to your real-life behavior in groups.

You will rate the statements from 0-4. The rating is defined as:

0 = Not at all
1 = Once in a while
2 = Sometimes
3 = Fairly often
4 = Frequently, if not always

	0	1	2	3	4
I make others feel good to be around me	❏	❏	❏	❏	❏
I express with a few simple words what we could and should do	❏	❏	❏	❏	❏
I enable others to think about old problems in new ways	❏	❏	❏	❏	❏
I help others develop themselves	❏	❏	❏	❏	❏
I tell others what to do if they want to be rewarded for their work	❏	❏	❏	❏	❏
I am satisfied when others meet agreed-upon standards	❏	❏	❏	❏	❏
I am content to let others continue working in the same ways always	❏	❏	❏	❏	❏
Others have complete faith in me	❏	❏	❏	❏	❏
I provide appealing images about what we can do	❏	❏	❏	❏	❏
I provide others with new ways of looking at puzzling things	❏	❏	❏	❏	❏
I let others know how I think they are doing	❏	❏	❏	❏	❏
I provide recognition/rewards when others reach their goals	❏	❏	❏	❏	❏
As long as things are working, I do not try to change anything	❏	❏	❏	❏	❏
Whatever others want to do is OK with me	❏	❏	❏	❏	❏
Others are proud to be associated with me	❏	❏	❏	❏	❏
I help others find meaning in their work	❏	❏	❏	❏	❏
I get others to rethink ideas that they had never questioned before.	❏	❏	❏	❏	❏
I give personal attention to others who seem rejected	❏	❏	❏	❏	❏
I call attention to what others can get for what they accomplish	❏	❏	❏	❏	❏

I tell others the standards they have to know to carry out their work ☐ ☐ ☐ ☐ ☐

I ask no more of others than what is absolutely essential ☐ ☐ ☐ ☐ ☐

Thank you for completing the survey, your time and effort is greatly appreciated!

Factor description:

Idealized influence (items 1, 8, and 15)

Inspirational motivation (items 2, 9, and 16)

Intellectual stimulation (items 3, 10, and 17)

Individual consideration (items 4, 11, and 18)

Contingent reward (items 5, 12, and 19)

Management-by-exception (items 6, 13, and 20)

Laissez-faire leadership (items 7, 14, and 21)

Qualitative appendix

Semi structured interview guide

Before we initiate this interview, I would like to establish a common definition of *leadership* to ensure a mutual understanding. I have chosen a broad definition to encapsulate as many differing branches of leadership as possible whilst avoiding any potential semantic issues. I pertain to the definition given by Cohen (1990) which reads: ***Leadership** is the art of influencing others to their maximum performance to accomplish any task, objective or project*. In short, the ability to influence individuals towards a common goal.

- How did you get involved with the video games and the world of E-Sports?
    - When did you realize, this is something you wanted to make a career out of?
- What position do you enjoy the most?

- Have you ever during your E-Sports career actively focused on- and tried to improve your leadership capabilities?
    - If yes, how did you improve your leadership capabilities? What materials, theories did you draw upon?
- How would you describe your own leadership style?
- How significant (or insignificant) do you believe leadership is for a game such as League of Legends?
    - Do you think leadership is more relevant for specific game roles? For example, would it be more beneficial for the mid-lane player to have a strong sense of leadership than the top-lane or ad-carry, or do you think it's equal for all game roles?
    - How do you believe in-game leadership should be practiced?

Certain players have been highlighted as exceptional shot-callers and examples of in-game leadership. Players such as Hai from C9 come to mind, and even your colleague at Origen, Xpeke, has been considered as one of the great EU mid-laners and a strong leader.

- How do you think players such as Hai and Xpeke became such strong leaders? What was it about them, that allowed them to be so successful as leading?
    - Do you think they were born with strong leadership skills or that they gradually learned how to become good leaders?
    - Do you think leadership skills can be trained/improved through playing the game?
        - If so, do you think the leadership skills acquired through playing League of Legends can be transferred into the real-world?
        - If no, do you think players such as Hai and Xpeke would have been just as successful?

Structure question: I am going to move to questions with a greater global outlook, to consider the differences between regions.

- As you know, the only non-Asian team to win the world championship was Fnatic in the very first season. From that point, only Asian teams have been victorious. How do you think that came to be?
    - Do you think the success of the Asian region is influenced by their leadership style?
    - How would you describe the differences between the Western- and Asian ways of practicing leadership?

Structure question: Finally, I'd like to finish this interview with some more local questions.

Denmark has often been praised as an E-Sport powerhouse. We've had world champions in FIFA, a strong presence in DOTA, the Danish counter strike team, Astralis, is arguably the best counter strike team in the world, and it's difficult to talk about professional League of Legends without mentioning players such as Bjergsen, Jensen or Froggen. How do you think that came about? Why are Danish people so good at E-Sports?

Thank you for your time and participation,

Interview transcript:

Rune Fabricious:

Interviewer: Before we go ahead with the interview I would quickly like to establish a common definition of leadership just to ensure a mutual understanding. I've chosen a pretty broad definition by Cohen (1990): Leadership is the art of influencing others to their maximum performance to accomplish any task, objective or project. So basically the ability to influence people towards a common goal. So, my first question to you, Rune, is **how did you get involved with the world of E-Sports?**

Fabricious: I got involved through playing a ton of hours throughout my mid-teenage years especially in high-school, I would play upwards of 6-9 hours daily, I came from a background of playing pretty high-level basketball for 11 years, so I think I had my competitive drive from that and that consisted with my love of videogames coming from like world of Warcraft, and really Warcraft it transitioned into like a love for the e-sports games which is the competitive minded videogames. I found League of Legends and hearthstone, games like this I got very involved, I constantly had one of the games I would be playing 6-9 hours everyday and especially League of Legends I played from the period of season 2 until season 6, I think I played between 7000-8000 hours during this time. It translated into me playing professionally from end of season 3 until mid-season 5, for some Danish organizations.

Interviewer: Later on, you went on to make the transition into coach and teacher – **at what point did you realize you wanted to become a professional coach?**

Fabricious: After it was a possibility, or after I lost the possibility to become a player and I had the skillset to… I had learned the didactic and pedagogical skillset from my education. I was never so hooked on the idea of dropping out of school to pursue my dream. I also had two conservative parents to allow for such a thing. Of course I could just have told them to fuck off and do it anyway, but that was not really in my plan. So, I just kept playing as much as I could on the side of taking my education, and then when I finished my education, actually until 6-7 months before I finished my education, I thought when I got out I was just gonna be a Danish/English and culinary class teacher. I had kinda lost track fo the whole E-Sports thing, but then lo and behold, 3-4 months before I fnished my degree, I got in contact in this place where we are sitting, Hydra, they offered me 5-10 hours per week where I would help them establish their League of Legends area. And that turned into that they liked that, so during the summerperiod I was here full-time, so 37 on paper, but I was here for 70 hours per week, because I just love this place, it's such an awesome place. And it turned into I was making several things for them, one of them being a course for teachers, pedagogues and assistants who had somehow gotten into contact with E-Sports, but didn't have an E-Sports background, so I was trying to teach people how to teach E-Sports, if they had been handed responsibility of E-Sports, because there were lots of that especially in the, in don't know what it's called, like special needs school, all of them need E-Sports now because a lot of these students really love E-Sports, and there's not a lot of people in this field who has any knowledge of E-Sports, so it's just your average… just the youngest guy at the office gets to be the guy who has responsibility of this. I've had some of these come on and take the course.

Interviewer: So, you've been a player, coach and teacher. Which of these positions did or do you enjoy the most?

Fabricious: That's pretty tough. Enjoy on a deeply personal level, I enjoy more being a player. It's a very selfish thing to be a player and it can feel so good and so bad. You've got like arch nemesis' when you play and, like, these people and this scene who are constantly

the ones knocking you out, or you are knocking them out because they are right around your level, and its such a.. its exactly the same as any other sport, if you kick them out it feels great to the core if you get smashed you feel like your whole life is just.. and nothing is worth it. But it's the one that gives you the greatest satisfaction I feel is being a player, and the competitive environment there are so many emotions on the line. But for stability I would say my job now as coach and teacher, it's.. I love it as well, and I am really grateful I get to work with E-sports in such a way. As far as I know the only other people who work with E-Sports teaching, as much as I do, are people who work at boarding schools, where it's possible to get almost a full amount of hours, so I am just extremely grateful that I get to do this line of work where I work at 5-6 different places so I can get to have 40 hours or more. That's really awesome, that's a possibility in 2019.

Interviewer: **That's not a bad possibility. Now, through your extensive career have you ever, at one point, ever actively focused on your own leadership competencies and tried to improve?**

Fabricious: Yes…

Interviewer: **At what point?**

Fabricious: At the point where I thought it would take to much work to get better at the game. When I peaked at low challenger, this very high level of mechanical skill, and I was playing on a team that was not doing well, not anywhere near challenger level, it became apparent I would have to focus sometimes on other things, such as leadership and knowing macro-gameplay at a higher level. I was not challenger level at that, at all, I was just good at the game. And.. I don't exactly remember how I would do it, I didn't have some insanely good guy I would constantly jump questions off, saying like "how do you do this in a professional environment, how do you do this.." that's pretty much what I would do now I think, but back then I just watched a lot of videos on it and watched a lot of material on what pro-players do, but I don't it ever helped me greatly. I think what would have helped more, was to have a coach. We were never really at a level where we… I never really felt we had a top-quality coach, so I should

definitely have asked more around to my pro-friends what they were doing differently, because it was something I never really got good at, this leadership aspect.

Interviewer: **How important do you think it is to have a good coach with strong leadership qualities to guide a team?**

Fabricious: For result, or for like how many games you win? Or for mental stability?

Interviewer: Let's say the first metric is success. The amount of games they can win.

Fabricious: Not as big as the community wants it to be. I don't think the coaches' impact is as big on players… It depends on the players of course, but there is too big of an emphasis on what it does for the success of the team, and how they actually play out the game. Because a good coach anyway at the highest level will just be a very good enabler of the skills that are already present. They are not really mixing it up by trying to change everyone into being these very different people, they are just trying to get people to maximize their potential. And I don't think you can… Sure, the best coaches are extremely beneficial in a lot of other ways, but I don't think how they (the team) actually play out the game on the rift, how they mechanically play can be great-fully improved by a coach. But all the things around like how they deal with being behind, how they deal with being ahead, how they deal with emotional regulation, making a mistake, actually daring to go for a play when the spotlight is on you, and also for the success I guess, a good coach can really really help. Doesn't have to be the classic football coach, with one guy telling you what to do, but can also be the sports psychologist type, depends on what the teams are missing.

Interviewer: Alright, so the core is that the coach is an enabler whose job is to make the most of the skills of the players on the team. **How do you think in-game leadership, then, should be practiced?**

Fabricious: In the start teams would be democratic, and some would be single-leader. It went to a system where now I think the normal thing to do is a.. a one in-game leader for the main, all the macro-decisions, and he has to have one more person to bounce off of. To take over and give input, like different input, teams where all five people are

constantly saying their view on it, doesn't work at all. That doesn't mean they shouldn't be talking. I talk a lot about this thing called "flow of information" which is that you know what you should be saying, what is good information to share, there is over communication and under communication, are you saying the things you should be saying, are you saying the things you shouldn't be saying. What is the line of communication from your top-laner till the rest of the team the first 15-minutes, what is good communication from the top-laner here, what is he supposed to say, what information relays mostly to himself. Like every person on the team knows what information should I share with the group, and what information.. might be slightly beneficial to someone, but 99% it's not beneficial so just keep that to yourself. Even though if you logically go through it you could come to the conclusion that this is actually in some cases good information to have, if its so rare keep it to yourself or look for the clues in the situation you know it fits and then you can say it as well. Else just establish what I need to be saying and what shouldn't I be saying. I think it's also like, you've mentioned Astralis and Origen, and I think they showed the importance of clean communication. A filter where everything excess get thrown off, like it feels like even when they are hyped up and winning, it's still like controlled, it's like we need this amount of hype to win this round as well. So robotic in a way, but at the same time the way you need to be to become successful I think. They are just trying to perfect it, whereas everyone else is letting loose a little bit. Just constantly screwing on all these different parameters trying to find what is the perfect recipe for making the perfect communication. I don't think many teams are doing that, but it's like.. great for the environment of professional E-Sports as a whole.

Interviewer: You mentioned in an optimal situation everyone should essentially communicate, but you should have one designated in-game leader, and preferably one vice-leader that can bounce of each other. **Do you think there is a difference or significance attached to the specific roles?** Do you think it's more important for the mid-laner to have strong leadership skills than it would be for the top-laner, jungler, ad-carry etc.?

Fabricious: Historically, yes. But.. that's a tough one.. Because historically top-laners and ad-carries have not been the shotcallers because they've been too focused on their own game. The top-laners have been too far away from what's happening to be the callers

and the ad-carries, actually I don't know why the ad-carries don't do it, but they are just hyper-focused on their own performance I guess. Historically it would be the mid-laners and supports. And why that is so, I'd say the supports, as it is now, now as much when it was established, but supports now must do a lot of communication, it makes a lot of sense for a support, they have a bit more time with longer cooldowns in botlane as well, they are like.. a little bit.. all in or they have a thought-process going on. Because when they are in they are in, and when they are just farming up, they have time to help out the team. So I think actually, supports make sense as the main makro-shotcallers over all. They have another person in lane that could shouting to them as well. Like now you need to all in with flash ult. Because, if you knew what the other support… If you could hear their communication you would be able to hear he's setting up a play top and you could just flash ult them, because he's not even looking at his own character or something. So.. But you would always have a guy to tell you there is something going on. I just think the supports overall have the most time, also because they have the longest cooldown, so you should know what's going to happen before it happens, are we playing this defensively, are we playing this aggressively, what is it that should be going on, and a lot of sitautions that's going on in botlane now, is pretty defensive. With the new warding system so you automatically get wards, there are twice as many wards in botlane. And that's. yeah.. Makes it more of a safe lane. Before ad-carries would not buy wards because they need to maximize on all their gold-advantages, but now everyone gets them for free, so it's harder to play an aggressive botlane.

Interviewer: My next question is about examples of in-game leadership. Certain players have been highlighted as exceptional shotcallers, and fantastic examples of in-game leadership. Players like Hai from C9, and to an extent Danish player like Bjergsen and Froggen. **What was it about these players that allowed them to be so successful? Do you think they were born with strong leadership competences or do you think its something they developed?**

Fabricious: That's a really good question. At the point where Hai was such a good shotcaller, coaching was minimal. Everyone used to think Lemonnation was the first guy to bring this little notebook of what they were banning. Today that would be the most rookie

move to bring a book with their bans in. Back then, people were like "damn" they have a book with bans. I don't think anyone other than Hai himself, made him a good shotcaller. There's also an example of Mata, the Korean support was an insanely good shotcaller, and obviously they won a bit more than C9, so he was also a good shotcaller at the highest level. The cool thing about C9 would be that they were always the huge underdog story, going all the way through the gauntlet. The story, outwards anyway, was that Hai was just so good at keeping everyone focused in these high-intensity games, like the gauntlet, where it's one loss and you would be knocked out. Where they would, for like two-three years in a row, they would go all the way through the gauntlet, where they had to play all six games in the gauntlet. Which is a place where the pressure is really on, perhaps more so in the finals. Because if you lose you get nothing, but in the finals you're playing for first or second, and both teams go to worlds (championship). So, are they born with it or being taught it? I'm leaning more towards it's a personality trait that they develop before they start gaming, so it's not something they are born with and it's not something they learn. I think a lot of gamers, especially those about five years go, are intro-verted guys who played a lot, and not many of them had the ability to micro-manage for other people. Because they were just not used to talking to people in the way, like understanding what all the other four people needed, and enabling them to do what they are really good at. I think that's what Hai was good at, he was a good social person.. Like he knew a lot about what his teammates were good at. I actually heard that Hai was not really good friends with all the people from C9, but in the gaming aspect he knew what they were good at. Also, it's like a self-fulfilling prophecy after some time, like a snowball effect. I think all the others knew that Hai was so good, so they started to follow him. So yeah. That's what I think. I think it's a personality trait he developed before he turned pro.

Interviewer: You mentioned it slightly when talking about Mata and the Korean teams. As you know, the only non-asian team to win the world championship was Fnatic in the very first season. For the next seven years, only Asian team were victorious. **How do you think that came about?**

Fabricious: Well first of all, League of Legends was not.. They couldn't play the game, so that helps. But uh.. What made Fnatic won the first world championship? As I said with

the lemonnation thing. Taking it serious enough to just think about strategies, only came about in season 2, or wehenevr LCS came about. There were so many so unprofessional things going on. People didn't even know how to play the game. There is a lot of Garen Chogath goin on in the botlane, and a lot of people playing double melee botlane, going up against double ranged. It's such a simple thing, ranged vs melee, you just don't do that. But they don't think that far, they are just like "yeah we like to play garen mundo bot" and they go against Caitlyn and Ashe. Something stupid. Like there's no other element to why it's good than we are two ranged and they are two melee, and they just get smashed. It was such a simple game back then. And the commentators are like "it was so smart what they did", and it isn't smart at all, it the most basic stuff ever.

Interviewer: You mentioned the Western scene had a head-start over the Asian region, as the game wasn't released. But as soon as the game was released, the Asian region swept everything and won seven times in a row. **Why do you think the Asian region has proved to be so much stronger than the Western region?**

Fabricious: Because they are.. They have the whole establishment behind them. The western teams had a head-start in League of Legends, but they definitely didn't have a head-start in E-Sports. I feel lke when league came out in like season 1, that was very much the birth of the western e-sports scene. At the same time some Counterstrike stuff starting to get a little bit bigger, but else League of Legends was pioneering how the E-Sports scene would be in the west. So everyone who was a coach was bad at it, everyone who was anything was bad at it, whereas in the Asian countries – especially Korea – they had like these old Starcraft coaches coming on to show the training regiment. Also as we seen now in Denmark, sports psychologist are taking it serious enough to talk with E-Sports players. Just everything around the scene is being taken serious enough, and knowing there is money enough in it, to make sense of care about it. Of course none of the teams back in season 2 or 3, none of them would have a paid cycle, like anyone who would talk to them about their mental fortitude, or anything like this. It was just, no psychologist cared enough about this market to do it. Especially in Korea there was a whole system established how professional E-Sports was right next to professional sports. And I think they just knew for a long time many of the things in sports could

be translated into E-Sports, and many of the very hard-working people in sportsscene do work in the e-sports scene, like we see with kasper hvidt and we see with Tricked E-Sports, which is a sportspsychologist group that help with E-Sports players and mental fortitude. Just some people who are good at their job they care enough to spend their time with it. A lot of people in season 2 and 3 could have used that in the west. I think that's it.. But it's weird why Taipei Assasains won in season 2. I guess they were just better, but I heard people were just too lazy. Like playing all night, waking up at like 4pm. The next day, that would be how all the western teams would function, whereas the Taipei Assasain routine was very strict. It also came out that the mid-laner for Taipei Assasains, Toyz, had been eating sleeping pills for two years straight just to function. Maybe that's why they won, because they had a strict regiment to follow.

Interviewer: You mentioned a big part of the success of the Asian region was a result of the infrastructure. Do you think the leadership style, both in terms of handling the teams from an organizational viewpoint, as well as the way the in-game leadership was being practiced, could have made a difference?

Fabricious: Definitely. Especially the organizational one. I don't know about the players because I haven't talked to them, so I don't know how established it was back then. It wasn't really a focus point for the LCS to show this part either. So, actually I don't know how good leaders were, because back then, when they talked about the Korean players, it was about how insanely good mechanically they were. It was like Madlife was really big back then, and Faker when he came out. They were not known for being great shotcallers but for being extremely good mechanically. I feel like the first time we really heard about it was Mata from Samsung Galaxy, and he was known to be extremelyt good and an extremely good battle leader telling everyone what to do. So I think it was more the organizational one actually. Yeah, that everyone knew what was expected of them, the routines were set in place, also the coaching staff.. or the coaching staff in the west was just.. The leaders in the team didn't have a lot of contact with the owner group. I think the coaching in the Korean region would be in the middle place between the players and the organization. I just think it would be way more professional is what im trying to get at. Like, it would be.. coaches when I like back at season four as well, they were just living with the team and basically like a sixth

member. Where, I think coaches in the Asian countries, were more linked to the organization than to the team, which I think was good. So you don't forget that "I'm getting paid to do this" that it's my job, it's not just because I'm so good that they couldn't say no to me.

Interviewer: My last question of this interview is more of a local nature, and is related to the Danish position as an E-Sports powerhouse. We've had world champions in FIFA, a very strong presence in Dota, arguably the best counterstrike team in the world with Astralis, and it's difficult to consider professional League of Legends without mentioning Danish players such as Bjergsen, Jensen, Froggen and so on. Why do you think Danish players are so good at E-Sports?

Fabricious: First and foremost, one of the most important and underrated things is our education. People are not bombarded with insane amounts of homework. It's as if the system is moving a bit towards more homework and system, but especially earlier it was very much about having a lot of sparetime, so you could pursue.. School is not going to make you happy, you should do what you like outside of school, and I think that enables Denmark to be great at… Like there's a lot of things Denmark are great at compared to our size, but E-Sports is something special because of… Of course our.. One thing as simple as our internet connection and availability of a computer. A lot of people have money in Denmark, and so they have the chance to buy a computer and actually don't have to be held back. And live in a place where there is an internet connection you can actually play on and the weather, I think, plays a role in… that combined with the school system that wants you to excel at something outside of school makes it very convenient to give E-Sports a shot. Because we can do that everyday for six hours, and you don't get tired of it, because it's more of a mental stress than a physical one. Also it fulfills a lot of your… There's a lot of emotions in E-Sports, and when I was I player I feel like you get a lot ups and down, and so I think it's a combination of some of those things. And.. oh yeah. Another big one is the culture of open parents to new ways of doing it. I myself have a Spanish girlfriend. There's a lot of people in Spain who care a lot about E-Sports and professional sports but it's no where near to spend the time to try and become a professional one. And a big reason is Spanish moms would just pull the plug and tell you to stop playing. It

would be seen as a problem way before you could become a professional, so we have parents that are more open. And also maybe we are more open in a time where there was no real reason E-sports was a good idea. For example when I was playing 6-9 hours per day, there was no potential in being a player, but my parents still only slightly hinted that I needed to have a job and needed to have a girlfriend, but there were other things to playing games, but they would not throw out my pc or cut out the internet, and I think a lot of other places, parents would see it as a huge problem, wasting six hours per day. And will take the consequence way earlier. It's both a good and bad thing about Danish parents I guess, because what if E-Sports didn't become what it was, then people would just have wasted six hours everyday.

Interviewer: Do you think they would have wasted six hours per day? Let's say if you play that amount and you don't become a professional, your level isn't really that high?

Fabricious: You're not wasting it of course, when I say waste, There are a lot of people playing videogames that waste their time almost. Waste is what I mean when you watch paradise hotel or reality tv. It is generally a waste of time. You can play videogames where you are trying to enable yourself to get better at leadership and do all the things, but it's not a natural thing. It's not something where you play a lot or play with a friend, that you automatically become a good leader. I think there are a lot of people trying to make a connection that E-Sports is always good for something. I would make the assumption that 90% of people that don't go to a place like this or are not going to a professional setting they are just wasting their time as much as the people watching tv. What they get out of it is more a social bond, which is also very important, but if you're looking for that it has an official thing on your personality, like becoming a better leader or better at talking with others, it's not an automatic thing that comes with playing games. It comes from doing it in a very strict fashion and you have to get to a point where you care so much that you try to improve these things, before that point, you're not improving anything, I don't believe it anyway.

Interviewer: Great. That was my final question. Before I officially wrap up this interview, are there any final statements you would like to make, that you felt we didn't discuss in depth during our interview?

Fabricious: No, not really.

Interviewer: In that case, thank you for your time, Rune.

Sofus Bynge:

Interviewer: First and foremost Sofus, thank you for taking the time to do this interview. It means a lot to me and my study. Before we go ahead with the interview I would quickly like to establish a common definition of leadership just to ensure a mutual understanding. I've chosen a pretty broad definition to encapsulate as many different branches of leadership as possible. I pertain to a definition by Cohen (1990*): Leadership is the art of influencing others to their maximum performance to accomplish any task, objective or project.* So basically the ability to influence people towards a common goal. So, my first question to you, Sofus, is **how did you get involved with videogames and the world of E-Sports?**

Bynge: Initially from gaming myself and from kind of, being passionate about gaming, so back when I was 14-15, I was creating my own guilds, having successful raids, making progress and later on it was more individual effort When I switched from World of Warcraft to League of Legends. I think that game just enthralled me, I played so much I actually became quite good at the game. The feeling of being near the top of the latter board kind of made it so that the interest and attention of everyday life revolved around League of Legends. So I think that kind of sparked an interest and League of legends was from 2009, and in 2011 it had it first season, the season 1 championship, and it happened right before the Roskilde festival. At the time I was the only one of my freidns who played League of Legends, and I had friends through League of Legends but it was still kind of my own thing, but at Roskilde, and I think it was beer bowling, and I just turned to a guy sitting next to me, and asked him what do you respond if I say "triple A vs Fnatic" and he just said, without hesitation, legendary Ashe arrow. Which is the one play that stuck from that championship finals. It was kind of a situation where I had never priory experienced my gaming-cultur in the mainstream culture. It still felt a lot like a niche culture, and something I had to hide away. But that made me realize this was something big, and this was something that was going to take up more and more space in the public culture. And from there I started looking at numbers and developments, partnerships etc. At the time I was doing my BA in

international Business Communication. I was very interested in the branding and communication, and the way you could nudge and convince people of your brand, identity and semiotics, and I think that was the outlook I had on E-Sports, this was something that was going to increase in interest, value and popular opininon but it was still.. I didn't know at the time it was going to become so big. But around 2012, one year later, League of Legends started building, I would almost call it, the framework of E-Sports we have today. And that was that they, riot games, took control over their production level and started professionalizing it. Because that was not something we had. Now we had tournament organizers, production crew, turtle entertainment, ESL, MLG, IEM, that has been going on for several years etc etc. But the production level that was very similar to that of traditional sports was not yet established and that came during 2013. And I think that was the time I just knew would go really really fast. And through my studies in CBS in 2014/2015 I focused a lot of E-Sports, mostly out of frustration, that Denmark were among the best Dota players, League players, counter strike players, so why didn't we pickup any organizations, why didn't we organize anything in relation to keeping the value as a country/nation and use this as a branding tool. We are a small nation, and we've always been proud when we, as a nation, do anything. We had curling, whenever we play football and we qualify for playoffs, the entire nation rallies behind them. And because of my passion for E-Sports I was frustrated that didn't happen. So that was kind of my way into E-Sports, my way into it was half frustration and half curiosity, as to why is it that it's not working, why is it that we are not adapting to E-sports, and that became my… my main goal was to understand why was it not like this. And the pinnacle was my thesis in 2017, that… Where I tried to build a framework to see how can we actually say something about the current growing E-Sports cutlrue, but do it in a way where we organize in accordance with traditional sports and frameworks, how is this similar. I kind of tried to find the middle ground between digital immigrants and digital natives, because they speak two entirely different languages. And that's been my main focus ever since. To bridge between the two generations.

Interviewer: **You provide a slight answer to this question, but for clarity's sake, when did you know you wanted to pursue E-Sports as a career?**

Bynge: I think that was around early 2015, because at the time E-Sports started to leak into the mainstream media. Often with a lot of sarcasm and ignorance, and a lot of people were interviewed about E-Sports, who, I knew, that the numbers they were giving were wrong, and the stuff they said was wrong, that they were not knowledgeable enough about E-Sports, so I.. In 2015, when E-Sports started to leak into the mainstream, their experts were less knowledgeable about E-Sports than I was. So that's kind of where it started for me. I knew I knew more than those who were asked, and I wanted to continue understanding more about E-Sports, and continuing to build a broader framework of understanding E-Sports, and how to use that to create something of value.

Interviewer: **So you've done a few different things. Obviously you've been an active player, an E-Sports consultant, and, from what I can understand, you've been a coach as well?**

Bynge: Yes, but mostly in relation to the… I've been a coach or manager for top teams, that have won the Danish league in summer last year, but I've been an E-Sports teacher/instructor for eight graders, for "hf enkeltfag" which is the gymnasium, and for associations. So I've been teaching E-Sports, mostly League of Legends, to kids from 12 to 30. Then I've been a part of the group that created the DGI E-Sport trainer education, I was one of the two people in charge of producing the material. I've travelled Denmark and educated around 150 E-Sports instructors. So I've worked mostly with those who are instructors and teachers for kids, and help them to get the proper tools.

Interviewer: **Which of these positions did you enjoy holding the most?**

Bynge: Yes, I was a part of North from fall of 2018, where we were very close to securing our spot in the European League of Legends Championship series. And that fall was extremely interesting, because it was a very commercial aspect of it, how do we actually create value in a top-level organization. It was a lot about speaking with the players at the highest level, and that was very interesting because a lot of the tools and work that needs to be done with young kids, needed to be done with professional athletes. So I think that was the most exciting few months, which was working with

the possible world-elite players. There was a lot of groundwork that was yet to be established, and that was what I found most interesting, which was kind of realizing how much, and this may seem kind of arrogant, but a lot of the patterns I could see were still occurring there, and I believed I could fix it through E-Sports psychology, collaborations and leadership, but a lot of it wasn't done yet because the E-Sports industry was still so young, so the players at the top did not have the time to really become professionals. Also because of the competition they are extremely hard working in relation to keeping up with the game. So if you have professional footballer player who plays maximum 2-4 hours a day of training and then you have the rest of the day for learning about yourself, learning how to cope with media, diet etc etc, but in E-Sports you have a level of competition that requires you to not just work 2-4 hours but atleast 8-12 hours, that leaves very little time for travelling and educating yourself. And I think that's one of the major issues and I think its one of the exampels of swapping it around is astralis. They've focused a lot on the sports/atheles aspect, and they are are almost never practicing as indivuduals, but only practicing as a team, and they are consulting with psychologist and nutritionist, and they learn more and more about themselves, but everytime they practice they practice in the team environment. And that makes it so that they never have more than six hours behind the screen, so they actually have time to learn more about themselves, because within E-Sports the games have certain set limitation that you cannot change because those are the rules of the game, so a lot of the development and professionalism is in relation to how we communicate with each other and interact and understand each other, and how do we understand why we make bad decision and how we can limit those decision. Actually, I heard a podcast with one of the guys from the golden four rowing machinery, and he was talking about… he won the Olympic medals ten times or something like that, extremely successful within his field, and he worked as a coach for many, and he had two very interesting points: one, a lot of the people who he has been hired to coach, don't need a coach, they need a therapist. And I think that's a misunderstanding within E-Sports, with the performance focus we have. If you need to speak with a psychologist, it's because something is wrong with you. However, if you want to speak with a coach it's because you want to do something better. One is inherently positive and one is inherently negative. But if we actually look at the two terms, coach is

completely unprotected and everyone can claim coach it is not actually certified, whereas a psychologist has worked several years within a field to get a degree, so it seems that there is an idea of searching for answers in the wrong places. But this was just a sidenote. One thing he said that was very interesting is, was that the conversation within sports used to be "how much do you practice" but to him, the focus should instead be "how do you relax", how much do you let your body and mind replenish itself so it can perform, because the constant focus on performance, exercise and training is becoming a negative impact, but you can grow more as an individual if you focus more on what do you actually need to be in a state where you can learn and develop.

Interviewer: **You briefly mention these elite players that can compete at the global level. What is it that allows these players to be so good at the game?**

Bynge: I think the answer is never simple, but there are different aspect of it. One, is what people call talent, that you need talent. But I think that is the lesser of the two, but I think the most important thing is the ability to work hard and grind for it. If we look at Counter Strike, there are thousands of players who are at the same skill level as Astralis individually, but they have not sat down and grinded the smokes, the timings, the collaboration, the agreements within the team, they haven't used the time within the team to automatize their decisions. A lot of them focus on their own talent and their own score, and that that is often what stops people within E-Sports from being as accomplished because the focus to much on their own improvements. Rather than realizing that the limits,.. You cannot get faster than you are. You can of course train your precision, your reaction time etc, but its at a very small fraction. The vast majority of improvements is through communication, coordination and talking with your team and agreeing with your situation what you do in different situations. The boring training is what really sets people apart. Those who have talent and can endure that practice will be most successful. Ulrich Wilbech, the one who coached the national handball team, he said the common denominator of the players were, that they were all on the second team in their youth, because they learned how to fight through hardship and run every morning, and practice their throw, but a lot of the people who had talent didn't have to practice as hard because they were already the best. So when

they met hardship they would default to something else. Denmark is a country where if you don't want to do the thing there are a thousand other things you can do. So when it comes to talent development the most important thing is to be able to work for it. And I do think that's where we are getting, and I think by adapting, like Astralis and Kasper Hvidt, they've come a long way by taking a lot of stuff with them from traditional sports

Interviewer: My next question is about examples of in-game leadership. Certain players have been highlighted as exceptional shotcallers, and fantastic examples of in-game leadership. Players like Hai from C9, and to an extent Danish player like Bjergsen and Froggen. **What was it about these players that allowed them to be so successful? Do you think they were born with strong leadership competences or do you think its something they developed?**

Bynge: So basically, in order to respond I think the most simple way is to.. We have a certain amount of attention, you cannot pay attention to everything at all times, our brain seethes through vast amount of information and leaves very little to us. The more you've been in a situation before, the more you are aware of something els .For example of you are learning to drive a car, the gearshift model is clutch down, speeder.. oh that pretty difficult, but the more you do it, the easier it gets, and at eventually it's something you don't even think about. You can now direct more attention at the outside world, who should I yell at now etc etc. So people automate their actions, and the more they are relaxed and don't need to focus on the primary tasks, the more attention they have for the secondary tasks. So Hai was very good at micro-managing people so he said this target and then this and this, so his team didn't have to think about the game, and only focus on themselves. Because as soon as they would start a team-fight, Hai would tell them what to do. So as soon as he wasn't there to shotcall, they had to do the thinking themselves, and it took them too long and they were too hesitant and indecisive. But when he was there he took away a lot of the thinking which made it much easier for the team.

Froggen for example was a leader through consistency. The other players knew we

will never lose mid, we can focus around this we can focus around that, they felt certainty thtat midlane can carry, so he was a constant win condition so he took pressure away from others, so that's a different kind of leadership but still the same as in he takes pressure away from his teammates. He was leading through example, but his downfall was following his wish to build rosters around him. This moved him away from being a calm and consistent midlaner, to being an active roel that should control the others and that's not him. I actually spoke to him back in the North project and about what he needs in a team. He was actually insecure about what he needed in a team. There was one thing he did not want in his team, and that was Koreans, because of the communication. He felt the communication was the biggest problem for teams, and it would be harder to align, from a cultural perspective. If we are from the same culture, we would reach conclusions in the same way, the easier it is for us to align. So Froggen has a very difficult time having to adapt to others and to a different role, but it was very easy for others to adapt to him. So when you put him into an environment where he has to adapt to a different leadership role, he was very insecure about it, because he is not a leader and was never a leader, but he was leading through example, by being consistent in-game. While Hai was a very active communicator that told people what to do, Froggen was a leader by leaving more space in the awareness of his teammates, because they didn't have to consider midlane.

Interviewer: **Do you think the micro-management type of leadership style Hai provided, is something a regular player can be taught?**

Bynge: No, definitely not. I am currently working a lot with a support player called "fiddle" who used to play with Wunder toplane, Sencux midlane, cop adcarry and himself back in 2013/2014. He then won the Nordic league with Tricked E-Sports, and then he played in the German league for one or two years, and then had a wrist injury, but is now on his way back. We've discussed a lot of micro-management and shotcalling. And it is exhaustive to be shotcalling. It's extremely demanding to be shotcalling, and it's often very hard to learn how to shotcall. First and foremost, and this is not a set-in-stone rulebook, but first you need to build the knowledge and then you need to build confidence in your knowledge, and that it's good enough to make the calls, and the you need to learn to actually make the calls, and then learn to align those calls with the

information your team needs. The Hai situation was a situation where friends played together and it felt good together and they grew together with a very specific dynamic. And we saw the same thing with Unicorns of Love with the same kind of friendship. But when they were threatened with hardship and their talent they actually didn't know how to respond because they started to question each other, and the same thing happened in C9 where they questioned each other. And a lot of good players have big egos and great faith in their own skills, so when they meet someone like Hai who tells them what to do, it will feel intimidating for them. So I think, you can learn to shotcall, but it's a very long journey, and if you want to learn how to be a Hai type micromanaging shotcaller, you need to have a group of four people who are not threatened by such a type of shotcalling. I think there are a lot of people who underestimate the relationship between people, and I think that's sets a lot of teams apart. An example is if the toplaner says "he has no flash" what is the jungler to make of that? Does it mean he has no flash, so I'm safe, he has no flash so we can dive, he has no flash so I will start a slow-push so we can dive, he has no flash so his jungler will probably stay top-side, he has no flash will he try and bait me with it. What does it mean? And if the jungler has to consider all these options, then the discussion takes too long, and you'll be making the decisions too late. A lot of people don't respect one of the core defects of the human brain, but what is called "correspondence bias", which is, you will always judge yourself by your intentions and other by their actions. So, when I say let's dive top, I know what I mean, I am the jungler, I am pathing towards top, I will take gromp, I will be there in 45 seconds and you should set-up a slowpush. But I expect you to know that because you are a competent high-level toplaner. But the toplaner thinks he should push quickly and dive, so when the jungler gets there, there are no more minions to set up the dive, and both are annoyed. We have the same different systems in real life, you have theories people refer to as the magic cycle, where everyone is agreeing on the rule and as soon as someone steps out of thre magic circle, no one knows what to do. Which is an example we saw with Fnatic when they swapped Capz and Nemesis, that broke their magic circle and all of a sudden the didn't know how to adapt to a new member, but after a few weeks they managed to establish the magic circle where they know what to do and how to do it, but it takes time to build. When you're singing in the choire for example when they are in synch and singing the same

note at the same time, their pulse aligns. So if a choir is in synch, flow and having a magical cycle, then their pulse even aligns. I think there are a lot of people that don't really respect this, because their knowledge of basic human interactions are negligible. They are way too focused on the in-game performance and results rather than presentation.

Interviewer: My next question is related to leadership. A lot of the examples I've mentioned are midlaners. **Do you think there is a significance attached to the specific game-roles when considering their leadership capabilities?** Do you think it's more beneficial for the mid-laner to be a strong leader than it would be for a support, jungler etc.?

Bynge: Specifically for League of Legends, it's most important for the jungler and the support. And then I'd say it's the top-laner. I'd say its least important for the mid-lane an ad-carry. The jungler is going to be plaing against the PvE, playing against the environment, so they don't have to consider if they can make this last hit, or minion aggro, or how should they trade. They have to focus on where the other jungler is, and where they should path towards. They need to communicate where they want to go, and they need to communicate ahead of time, so they have to say "im pathing toward top-side" if you want to dive him set up a slow push, and then toplaner can say "I cant setup a slow push, they have vision" and then the jungler can say fine, I'll path up there, we'll clear vision, and then the next time we can do it. So it's the jungler who needs to inform and track where the other jungler is, and use that information to help his laners. So he can take focus away so the toplaner doesn't need to focus on the jungler. It's expected the jungler will say, he is botside so you are safe, or he is topside so take care. That is the junglers job, to do that. Of course there are situations where the toplaner has a great read for the jungler, and has a great spider sense for when he will be ganked, but it is the jungler who needs to know. The support is also not bound to hit minions but is bound to read the opponent, their playstyle and actions and how they behave, so the support is the one who has the most time to type out summoners, to plan ahead, to discuss winning conditions, because the AD-carry and the midlane and the top-lane are all busy fighting and trading and farming, and if you want to put the shot-call responsibility over there, they need to shift focus around. For example if the midlaner is the shotcaller, and if he wants to push out the wave and dive top, he

needs to constantly look top or ask top "can we dive this" and then focus is between mid and top, and when the dive is meant to happen, they don't know what's happening in the jungle, because they've been to focused in what's happening in the lanes. So it's about limiting the tasks that you actually need to have in mind when you play, and that is why it's more important for the jungler and support to have these shot-calling capabilities, because they have spare brain capacity to do so, the midlaner rarely has so, and the ad-carry rarely has so, because it takes away from their performance elsewhere.

Interviewer: **How important do you think it is for players to have these leadership capabilities to be successful?** Do you think a very strong support player needs to be able to shotcall, to have an overview of the map in order for them to be successful?

Bynge: No not necessarily, it's all about team dynamics. As mentioned, you can definitely have a top-laner with a great read, a top-laner who will, after having played so much, know how the jungler will path and then you can play with a more carry-jungler, who plays for himself. So if the top-laner can farm it out safely and track their jungler, and your jungler can focus on what camps can I take, what timings are there, where do I ward. Then you can swap the syn1ergy around in the team, and have more carry-oriented junglers. Who doesn't need to gank but to win the jungle. As a support, there are players who do exactly as the ad-carry expects them to. So if you have an ad-carry that plays very aggressive, you know your support will always do the right thing, and the ad-carry is now the primary shotcaller, as he knows his support will always back him up. He can then spend more time focusing on farming and rotating. So it's not mandatory, but it's more action based. If we break League of Legends down to a Dungeons and Dragons game where you have three actions per turn, there is actually room for shotcalling actions in the jungle and support, but not for the top, mid or ad-carry. Exceptions are with very easy match-ups, like twisted fate in the midlane, and you can clear the wave with your wildcards and redcard, and then you can roam with your jungler. You then have fewer actions, and more room to consider what to do. If we break it down in an over simplistic way, you have a limited amount of actions, and the carries actions are already full and don't have room to lead.

Interviewer: **How do you think in-game leadership should be practiced?**

Bynge: It needs to be a decisive as possible. There needs to be mutual respect between the players, but questions like "can we, should we" should be avoided. If you ask "can we dive top" you take away an action from the toplaner, as he needs to consider if he can dive, how is the matchup, what is the chance of success etc. He will need to spend some of his precious mindpower to consider the outcomes and that's not what we want from shot-calling leadership. We want someone to take care of the actions we have available. If the jungler keeps asking the team in a democratic way, everyone will spend all their time considering, and will default to some crazy explanation of why they are not winning. And they are not winning because they are constantly asking questions, so the more decisive it can be, and again, that requires respect among teammates, but also a very elaborate and concise tool or agreement within the team. Who is responsible for what. Because there are a lot of people who judge others on the basis of their actions and themselves on their intentions. They will often be very frustrated when the actions don't align with the call or what they expected. So, they feel attacked because they don't have access to others train of thought, then it will start to tear the team spirit apart, and eventually.. the worst thing in a team, is if people don't have faith in each other. So you need to build a shot-caliing leadership where it's focusing on taking attention away from your teammates so they can do their job better.

Interviewer: My next question has a more global outlook. As you know, following your early entrance into League of Legends. Following the eight separate world championships there has been in League of Legends, only one of those has seen a non-asian team be victorious, which was the very first season. **In the next seven seasons, only Asian teams have been victorious. How do you think that came to be?**

Bynge: I do think it's the culture. The, kind of, respect or authority. I think it has changed a lot, but it used to be that you were mere appraised and supported in Asian cultures ofr being a gamer, than you were in the western cultures. So they had more of a emotional backing, so they could easier focus on the task ahead. I do think that became more, as we spoke of earlier, a structured training, that gave them, mostly the Koreans, the edge

in 2014, 2015, 2016, 2017. It was definitely this controlled, strategic, concise League of Legends. It was like a wall you could not breech as there were not holes. What happened is… there's this saying that the best swordfighter in the world doesn't fear the second best, as he knows how to beat him. He fears the one who has never held a sword, as he doesn't know what to do. In the world championship in 2018, we saw how these Korean teams were outplayed, and specifically the European and American teams were doing unconventional stuff. They were playing aggressive and taking risks and running them over, because they weren't respecting the rules of the game, and I think that, in the end, it was IG who won. I think a lot of that was what Perkz mentioned in his interview after they lost, where he said that they were just exhausted. They were so proud of their accomplishments where they never believed they would make it into the semifinals. And when they beat RNG they felt like they already won their own world championship, they already beat the odds and were so happy, that they were just exhausted. And I do think that there is some truth in this notion that both Fnatic and G2 and Cloud nine, overreached. The last game they all lost in, the lost clearly, and in every one of the games, it looked like they didn't feel the drive. And that's not really negative, it just felt like they reached their goals, and when you've reached your goals its difficult to just reset them. Of course they wanted to win worlds but there's also a truth in that we know it's most likely not going to happen. So when they surprised themselves with this underdog story and the relief of knowing they got so far, took away some of the focus. But I do think that, going back to the question, why do I think Asian teams won? Because Asian teams actually know how to grind through hardship and create structure, and have a proper training moral. I do think that European and American league of legends players do not have the same traning moral and structure in their everyday lives. I do think that they are aware of it and trying to fix it, but from a pure cultural perspective, we are much more entitled in western countries than the Asian countries. And we are much worse a criticizing each other or taking criticism. An example is this thing called the "dunning-krueger" syndrome, which is basically the notion that people are so stupid, that they don't know they're stupid. And the basis of it, is that in the Western countries, when we meet criticism we often default to a "I'm not the problem, you are" but in Asian countries, the response is more open and responsible. And I think that eagerness to learn is what has given them the edge over

the past couple of years. But I think it also does limit creativity and think outside of the box when it is so well-structured, whilst European teams are constantly thinking out of the box, and trying to make big plays and chasing after the gold medals. So I think the balance is.. Koreans need to have fun.. And Europe and US needs to buckle up and do the work. I think that's the over simplistic but two types.

Interviewer: The last question of this interview is more local. You actually spoke into it a little bit with your thesis. You talked about the frustration of Denmark having such a strong player pool, but a lack of organizations to capitalize on it. But when talking about the strong player pool, especially now, we have the strongest counter strike team in the world, Astralis, and Professional League of Legends is ripe with Danish players such as Bjergsen, Jensen etc. Even in FIFA we've had several world champions. **What is it, do you think, that allows Danish people to be so good at E-Sports?**

Bynge: This is a question that often crosses reddit, "how are danes so good". Some of the obvious baseline answers is that it's often cold so we'd rather sit inside and play. Or we have a strong welfare system so we can do what we please, and we can actually take a year out of our school to pursue this, so we have a very strong framework. What I think is very interesting is that.. Why is it so that Sweden has produced a lot of talent, but Norway didn't? And Germany didn't, and UK didn't. What sets Denmark and Sweden apart, because there are way more professional Swedes and Danes than our neighboring countries. And the one place where we really stand out, Denmark and Sweden, is the way we've organized ourselves with associations. In Denmark, if you want to play soccer, there is not a single city, no matter how small, where there is not a local football team of volunteers, where you can play with kids your age for a very small amount of money. In the UK you are bound by the schoolsystem to specific offers, but in Denmark we have we have volunteers, unions where we have intuitively built structures where we want to see talent flourish. So when Froggen, or Bjergsen - Bjergsen is a good example. When he became good at the game, someone noticed. And someone invested hours for free into assisting him in overcoming some of the troubles he had. One of those guys who was Deficio, who is now with origen, but we.. In our Danish culture we have it inherently fixed, that we build structures where we help people follow their passion. There are a lot of low-cost or free of charge "dyrk

din sport" type of organizations. I think that's, even without trying, we organize and build stuff to help people flourish. Because that's what we've always done with handball, football, curling etc. and now we have moved that into E-Sports as well.

Interviewer: That was it for this interview. Do you have any comments you want to add, that you did not feel you had opportunity to add?

Bynge: I'm okay.

Interviewer: Great, thanks for your time, Sofus.

Martin "Deficio" Lynge:

Interviewer: Before we go ahead with the interview I would quickly like to establish a common definition of leadership just to ensure a mutual understanding. I've chosen a pretty broad definition to encapsulate as many different branches of leadership as possible. I pertain to a definition by Cohen (1990*): "Leadership is the art of influencing others to their maximum performance to accomplish any task, objective or project*." So, the ability to influence individuals towards a common goal. **Thus my first question is, how did you get involved with League of Legends at the professional level?**

Deficio: In 2012 I decided I was done trying to be a player myself for a while, because I wanted to focus on real life work basically. But I wanted to create a team and be a team manager or leader. In this case, a group of young guys who could compete at tournaments. So I got in contact with the now co-founder of RFRSH, Jacob, who was the owner of a organization called Copenhagen Wolves back in the day. And I told him I'll build you a Danish line-up, they'll be great and they'll compete at all the big tournaments. Do you want it, yes or no? He said yes, we built the line-up. The line-up was obviously successful, although I had to step back into a player-role in late 2012, when we qualified for the first professional E-Sports league in the LCS in 2013. So I was a player there for a year and then I went back to being a team manager and then became a shoutcaster, and now general manager. So I guess it was actually me saying, I don't want to try competing myself, I'd rather lead a group of guys towards one goal, which was to be the best team in Europe. We didn't achieve that goal, but we got close enough, we got top 10 which was good enough at the time.

Interviewer: You've done a lot of different stuff, coach, player, shoutcaster, general manager. **Which position did you enjoy the most?**

Deficio: Commentator was a dream-job that I didn't realize was a dream-job before I got it, because I never actually thought I was going to be a commentator. It was never an idea or a goal, but when the opportunity showed up and I took it. It guess because I was curios to see what happens on this side of the camera, it then quickly became a dream job because it is such a super entertaining thing. Every day you think about League of Legends, you go to work preparing a show where you talk about League of Legends, and your entire life is literally about being this personality on camera in front of hundreds of thousands of people. So that it defnintely the favorite job.

I think the new job as general manager is also very exciting because there's a lot of different challenges and you have a lot more responsibility. But in terms of pure joy, commentator.

Interviewer: Again, you've done a lot of different things, and especially following your position as coach and general manager, **have you ever actively focused on your own leadership capabilities, and tried to improve upon them?**

Deficio: Yeah, I think leadership, or in this case within a lot of E-Sports teams, being a role-model is something you have to focus on, if you want to create a successful structure. Anyone can get lucky and get five players that fit together and they end up doing really well. No one is lucky enough to have five or six teams in a row that end up being the best. Then it's more about the structure, the culture and the leadership you bring, and how you do things. So, when I started originally back in 2012 with my first team, I was a bit older than most of the E-Sports players, as I was around 21 I believe.

Interviewer: That's still pretty young.

Deficio: Still pretty young yeah, but most of these players very 16-17, so I naturally had a leadership role by just being a little bit older, and had lived a normal young Danish teenagers life, where you play football, go to school and go to high school. So for me, it wasn't weird to be the one in charge of sorting things out or talking to Riot. It was

kind of natural, but for a lot of the 17-year-olds it was really weird and like a "no, no, no we can't do that" type of experience. They couldn't handle booking flights even though it's super easy, but it's too much for a lot of young players back then, so you had to fit into a role where you had to be the responsible one, but I learned already back in 2012, is that when you get a leadership role, while there is added pressure on you, if you use it properly, you can actually show people the way by just being a role-model and leading by example. You don't actually have to yell at people and directing them in different ways, but if you just show you know what you're doing and you have things under control, so that they naturally get things under control because you're a group, they will almost blindly go to you with issues and will trust you a lot more. And it became pretty easy, as long as I just made sure I did my stuff, for them to feel like everything was under control and I was a good leader. I didn't know much about sports performance, I didn't know much about building a culture. Obviously now, that's very important, but back then it was more about showing that you've got everything under control, and then you're a great leader for these kids, and be there when they have issues. Because as a 17-year-old, when you travel, you play, you are suddenly the big star, there is a lot of pressure, a lot people, a lot of criticism, a lot of positive things, things you've never experienced before. You need someone who's actually willing to listen and help you. Otherwise you might end up on the wrong path where you make some really bad decision, which we saw a lot of back then, with a lot of players, sadly. Then there's Bjergsen where he (motions a rocket with his hand).

Interviewer: You mention it briefly yourself, with the notion of leading through example. **How would you describe your own leadership style and has it changed following your entry into E-Sports and now?**

Deficio: I think my leadership style is still very focused on leading by example. I think that's also because in E-Sports you're typically very close friends with a lot of the players. Which means you spend a lot of time with the players. There's not naturally a "we're in the office" type of set-up where I am the boss and you're the player. So, you end up spending time going out for dinner, and you travel together. So, it's very important for me, that I don't change too much between office and when we are just chilling, because I still have to lead by example in the sense that I can't just completely goof around and

do dumb stuff in my free time with the players. Because that's something they are going to remember and notice, which is going to carry over into the office hours. So, I think it's very important to always understand your role within a group. In this case that is, that I am a little bit of a… Dad sounds wrong, but there are certain things that the players know they shouldn't do, and if they do it and you're there, you want to have the reaction where they instantly look to you and go like "oh shit, did he hear that", and you're like "no, no we don't do that around here. Just to kind of set-up some barriers and examples. That part is definitely still there, even though I think being close with the players is a positive thing. But it also shows that you can't make big mistakes, you can't say "you're not allowed to do that" and then do it yourself right after. Because that'll ruin everything. So, I think there's a lot of being a close friend, but also being able to be responsible and stick to the rules of the office. But I also think, that I am not the type to get mad or yell or practice very aggressive leadership. I like to trust people, that if we say this is how we're going to do things, that we go to bed early, we eat healthy, we show up for these things, I like to trust people that they will actually do it. And if they don't do it, have a chat with them about why is it not happening, why did you not do it, and if it's because they just don't understand the reason for doing it, you can explain it to them and hope that's enough. We haven't been in a situation yet, where we needed to actually say "hey, you're ignoring all the rules, this is a huge issue" where we had to get mad. I like to put in trust and explain why we do certain things, and I like to see the players learn "oh, there are actually huge benefits to what we're doing". And I think Kasper, obviously Kasper Hvidt, who is the performance director of the team, is doing it the same way. Where he says "this is what we're going to do, do you understand? Yes? Then I trust you will show up here and do these things." And then you evaluate each week, is it happening, is it working, and as long as we show the players why we do it, and they feel the difference, I think there's not going to be any issues with that. I guess the last part I've learned with leadership, is that if you're slacking off, it's going to affect everyone around you. If I'm getting conversations and emails from Riot and other people in the office, and I'm just like "yeah I can answer next week, it's fine or whatever" suddenly something goes wrong, you miss a deadline, or you're not playing with the correct gear or whatever, that's your mistake and it's going to hurt your entire team. So definitely, be on top of these

kinds of things, and learn how to prioritize the really important things, and get them done, so you're not messing up. One player makes a mistake, means one player suffers. You make a mistake the entire team will suffer.

Interviewer: You briefly mention other types of leadership, such as an aggressive leadership style and leading through example etc. **How do you believe teams should be managed?**

Deficio: I think it definitely depends upon the situation, but I'd rather scout for personalities that I think fits into what we're doing here, and the kind of people that are working with the team here, than having to try to change the style we operate with, around what players we're getting. If we were only getting players that never cared about listening, who were always super selfish and impossible to get through, where we would need to put in super strict rules with big fines if you didn't do things properly. That's just not the way we operate here. Then there's not trust between player and general manager or performance director, and that would just create a really bad environment for everyone. We scout a lot into personalities and I knew a lot of the players personally from my many years as a commentator. I've sat in on team scrims in the past and seen people how they operate in the game and outside of the game. Kasper has a lot of ways he can track different personality things through interviews and tests and whatnot, so we put a lot of focus into finding players that can actually work in a RFRSH Performance model and how we do it. We need a player where we tell them "working out is great, and is important for you", he doesn't say "fuck you", you know? He actually goes "I understand this, and I feel the difference and it makes a lot of sense, I will do it". So, I think that's more important, at least, in this case when it's performance and team-related. Now, I don't know if I was a leader of a huge company with 2.000 employees you obviously can't scout for that properly, but at least in this case, from my experience working in this kind of set-up, we have a way we do our things where we listen to feedback of course, but we're not going to do a 180 on how we operate in here. We'd rather get players that slot into this system. And once you have a core group, it's so much easier to get a guy who normally wouldn't fit in, to join. Because when he sees that the entire group is doing something, he will naturally be the one to change and join in. You don't want to be the one guy who is alone, and

the other four are doing something. So I think now that we have this core here, and I think Astralis have proven this as well, there's trust and respect towards the players. They are now doing things one way. If you put in a new guy, he's not going to change the team, instead he's going to be the one to change for the team. So I think that's the correct way to do it in E-Sports, and I think understanding that E-Sports as a business is growing faster than players are maturing, and we need to, as a leader group, understand this. What I mean is, there's more and more money coming into E-Sports. There's bigger and bigger brands coming into E-Sports. But the players you're signing, the youngest players you're signing are still 16 and 17-years old, and they're coming from a background that has nothing to do with competitive sports. They're coming from a background of "I was a kid, I went to school, I play videogames". Now they're 16/17 and they're signed by a professional organization, here's a contract and you have Audi as a sponsor and millions of people watching you. There's no transition. It's not like in sports where you go from playing at a very high level as a young player, then getting signed by a club with a great youth-system that educates you along the way, and you practice from 12 years and up, and these teams with coaches and pressure, and you understand, suddenly you're playing for Barcelona's academy team and this is big stuff. It doesn't exist in E-Sports. So everything around the business side and the fan side is growing and growing and growing, but the people you sign are still the same young, un-prepared 17-year-olds that you signed five years ago, when E-Sports was a lot smaller. So it's up to us to understand, how do we take this 17-year-old and very quickly prepare them for this entirely new world, where you're not allowed to say whatever you want, and you need to be able to handle pressure and you have to understand it's a competition and so on. That's a huge part now, of being a leader of an E-Sports team. Actually understanding that even though you're getting older, the players you sign are still the same age as they were five years ago. And you need to be able to adapt and teach them the ways. And not just say "oh you're so dumb why are you doing this" because they're 17-years-old and we all make mistakes. And we need to work around that.

Interviewer: The next question is similar to the last question; when you have these groups of 17-year-olds who need to cooperate and work together, do you believe there is an optimal

way for them to do so. **In other words, do you think there is an optimal way to practice in-game leadership?**

Deficio: So far, I feel like good in-game leaders have almost been natural talents at it. Like they are just able to view the game while playing it, in a way where they can say "we should do this now" or "if we do this then this should happen", while still playing their own game. I think though, we have looked into a little bit, and it's something we've been working on. There are things you can practice. I guess there are two types of in-game leaders:

There is the one who is really good at calling where they should go.

Then there is the one who is really good at getting the entire team to function together. And get the entire team to actually understand why we are doing this, and what we're doing. Kind of the role model – you can be an in-game shotcaller without being the role model, because you're just insanely good at viewing the game while playing it, and understanding what should be done. I think if we use examples from our team, then NukeDuck is extremely smart in-game and he's so gifted when it comes to later stages of the game and understanding what is the correct move as a team, and then you can take Cold who is a great role-model and a great culture leader. Like, he's the guy who you want every player to follow what he's doing as a professional athlete. Because he really values team morale, he values constructive criticism, he values health, he values all these things and he's really good at pushing that so other players also say "yeah that's really good we should follow what he's doing" and then you get a really healthy team environment. So if you have any problems players can talk about it openly with each other. In a positive way find a solution. No players is super lazy and can't be bothered to do anything, because they look to him, and he says "you know what, I feel great whenever I bike around Copenhagen before practice" alright let's try it, more people do it and they all show up fresh and ready. So he's like, he's the in-game leader that you want as a role-model. And again with NukeDuck, he has this ability to watch the game in a way that a lot of people don't watch it and then he can call it. But one thing he had to practice a lot, and this is something he spent a lot of time on last year as well, is he had to practice multi-tasking. Because if you are an in-

game leader and you have to play the game, but you also have to be able to think about other stuff while doing it. So he had to practice a lot of things where he needed to kill this guy 1 versus 1, but still have an idea about what's happening elsewhere so he can communicate to the rest "oh we should go here now". And that's just multitasking and in-game knowledge, those two things combined. And he needed to practice the multitasking part, and I think that helped him to become a better leader, so while originally one thought it was just a gift or natural talent, I think we have seen there are ways you can definitely improve it or practice it, and that was one of them.

The other thing is obviously great coaching about scenarios. Because the game, while its always different, it's the same map you're playing, it's the same kind of characters you're playing. It's all math based, if my character can deal 1.000 damage and your character has 900 hp (health points), I will kill you. If we have five players and you have four players then I have a numbers advantage and the chances of me beating you is higher. If I make this play now there is 70% chance it goes correct and 30% chance it goes wrong. If I do this thing first, it's then 90% - 10%, better play, yes let's do it. So if you're able to, as a player, understand that with your coach and your team when watching the game, what is it we need to do to get the 90% instead of the 50%, then you can start to see that in the game and call out for that. And you'll start seeing these trends of, if my entire team is dead and the enemy team is five people alive, the chance of me going 1 versus 5 is probably very low, I shouldn't do it. You can practice that if you spend a ton of hours just studying the game instead of playing the game, which is another thing really great leaders can do. But that requires a lot of knowledge and to be a really smart person naturally, which is not the case for some people. But yeah, multitasking, game knowledge, and I still think there is some natural gift/talent when it comes down to it, I think not everyone is cut out to do it.

Interviewer: My next question is also related to the in-game behavior of leadership. **Do you think there is a difference in importance of leadership for the different game roles?** Do you think it's more important for the mid-laner to be the best shot-caller than it would be for the support player and so on.

Deficio: I think there's definitely… I think the ad-carry role is probably the least important to be a leader in. Because so much of what you do is based around min-maxing, moving and hitting with your character, and if you're really good at that, and you know when to move out of the way because someone is coming for you, and you get as many hits in as possible, you can be a extremely successful ad-carry. Ideally you are able to call certain things, like I'm hitting this target and I need help with this or I need to go here now, will someone else help me. But that's not being a leader that's just a part of your role. When it comes to different phases of the game, I think in the early parts of the game, the jungler has to be a leader. The jungler has to be confident in communication, he has to be confident he can dictate the pace of the game, because he's the guy moving. He's the guy who's saying we're going top now or we're going bot now, because everyone else is sitting in their lanes. So you need a jungler who is vocal and has some leadership capabilities in the beginning of the game. Once you hit past the laning phase, then I think the jungler can take a step back, and he doesn't need to be the leader, and then it's a big question between who is doing what in the game. It's very, like, nerdy or whatever, but if you play a composition where you have split-pushers, it's crucial if you want to become a world class team, that those guys can actually lead and talk. Because they are now the ones who are dictating the pace of the game, they are the ones who can communicate "I can do this now, so I need the team to do this for me". So if you're like, I am winning my sidelane, then I can push, but I need the group in mid, and to push forward as well and come to me so they can protect me, you have to be able to see that and call that. You can't expect the guy in the midlane to micro-manage that, so I think the great thing about League of Legends is that there are so many different phases of the game where different people can become leaders, it's impossible in modern League of Legends to only have one guy who can call everything. So, I'll say that your solo-laners must be able to lead if they are split-pushers. If we are putting the game in their hand they have to be able to lead if we want to be successful with that strategy, which is also why you see a lot of teams never doing that. They're like "oh we'll just play tanks, because we don't need to worry about this". But I guess, if I had to pick a role where there's less happening for you, so you should technically have more of an overview, that would be support. So I think it's ideal to have a vocal support, during the entire game, have a jungler who's the

leader in the early game, I think he's the main shot-caller in the early game, and then have your solo-laners be capable, if they are the ones playing the splitpusher in the mid to late game, to actually step up and say "I am now the main leader", but I want my support to be able to talk from start to finish, because his role is less intensive when it comes to the individual things he's doing, and he needs to be able to coordinate with the entire team. Because if he ever goes alone anywhere he's dead. And we can't have that, and the whole vision game is a team game and he'll be the one to bring in the most wards. I guess summarize, was it, you asked? Was it important to have?

Interviewer: Yes, so the distinction between the different game roles. Is it more important for..

Deficio: Ah yes so, support is super important, jungle super important. Let's keep it with those two.

Interviewer: Following on the last question, if you want to be a successful splitpusher, you need to be very good at practicing leadership. You also mention that some of it is natural, and some of it is developed. **Do you think these split-pusher can gradually improve upon their leadership skills?**

Deficio: I think the split-pushers can, if they and the team find out what are the key things to learn first. In terms of what you need to do to be a proper splitpusher and take a leadership role when you're doing it. It's completely irrelevant for you to talk about all the smalls things that are happening, "I am killing this minion here etc." that doesn't matter. But being able to learn, the priorities that you need to be able to call: When can you win and push? And what do you need in order to do that, so you don't just die. And if you learn those two things, you're saying that you now understand you're stronger than this guy and communicating "guys, at this point I'm going to win". So we know we need to just get him to that point. And so when he says "now, I'm winning, I am going to needs wards here and here. Or I need you guys to pressure here. So if I am pushing I don't just get ganked by three people and die" and then the rest of us just do nothing. I think those two things are the most important for them to practice, so I think it's actually about priority. If you want to teach someone who is not naturally good at it. And if he starts looking at those two things, then you can start going

somewhere. And then maybe you can add more later, or maybe you keep it to two, because you can't add more, there's just a limited amount that can fit in to the player while he's still playing the game. So, that would be the way to do it, and the way we've been working with some of the things as well. Minimize the amount of things you have to worry about, so you don't suddenly have to worry about 20 things. Kasper actually has a great point about that, where he says that when you're preparing for a team and you say you have to worry about 20 different things, people will forget about 15 of them if not more. And then you don't even know which one of those they remembered, was it the first, third or the tenth one, we won't even know until we watch the game. But if you instead say "only worry about these three things", and you know those three things are enough and everyone will keep them and remember them, and it's easy to repeat them, and that is at least covered. So I think that's the same here. There are so many moving pieces in this game and so many things happening. It's never just "okay, this will happen 100%", because then this one guy dies, and this one team does something different and then you have to change it completely. That's why you have to be able to adapt and keep it super simple.

Interviewer: **Do you think it's possible for people to develop these skills outside of a professional setting? Do you think the 15-year-old sitting at home, can be able to become a really good leader?**

Deficio: I think it's harder because you're not directly communicating to whoever you're playing with, in an easy way, and you're not always playing with the same people. But I think you can still learn what you need to do, to actually direct your team, if you're the one always playing this position. You can learn to look at the minimap and say "okay, I don't see anyone, so if I'm pushing here there's a high chance I am going to die". Or you can learn to tell your team and communicate through texts or pings. "hey, I am going to win now, just keep pushing mid". Again, keep it super simple. And you're going to start finding more and more success. If you look at some of the players who reach a very high ELO, on just playing certain champions that are good at splitpushers, they always find ways to generate more pressure, or give themselves a higher chance of winning. I think you can learn what to do and what not to do, and I think you can learn how to communicate it. You are sadly not in control of whether or

not they listen and understand. Like, you can make it as simple as possible "push mid", you know, and they'll still be like "nahh I'm going to run up here and there's nothing you can do". But that.. I think at least you can try. I find, if I am try-harding when I'm playing, and I'm actually communicating, most of the time people do follow, and I find way more success. I win a lot more games if I say "hey let's go here now, or let's do this now", instead of just sitting silent. But I also understand if you're playing 20 games a day, you get tired from typing all the time. But I think you can definitely learn your role, and the basics of what you need everyone else to do.

Interviewer: Again, you briefly touch upon this, the notion of if you actively try to communicate to the team you will be more successful. **Do you think, in general, if you try your best to practice leadership in-game, that you will be more successful?**

Deficio: I think you will. Because there are so many different ways to try to practice leadership in these games. It doesn't have to be that you try to have all the answers and you know exactly what to do. Maybe you're just communicating what you're able to do. And some people could use that information. I think that's probably the most important thing to look at, yourself. It's like, if your always saying "hey I am now level 6, I can come mid and we can go for a kill". That's ten times more effective than you just running mid without saying anything. And the midlaner has to then see you're coming, and then understand what you're trying to do. If you're confident in saying "I know we can do this", this guy will most likely follow. I played a lot of World of Warcraft when I was younger, and I started out as a little kid, when I was like 13. I didn't talk, I didn't do anything and I was just sitting there playing. But when I got a little bit older, I realized when you're running as a five-man group, and you're going into these different things where you have to solve different problems, actually being the one – if no one is talking – to start saying "okay guys, what should we do? I suggest we do this, what do you think?", and just get people talking. And suddenly it's way easier, and a lot more fun, and you start realizing how you can have an impact by actually being the one who's atleast trying to communicate something. And again, even if you don't know exactly what's happening, just keep it simple. Keep it to yourself. I'm doing this now, I'm going to go here now. And then, someone will most likely follow.

Interviewer: My second last-question has a more global outlook and pertain to the world championships in League of Legends. As you know, the only non-Asian team to win Worlds was Fnatic, in the first season of the game. In the last seven seasons only Asian teams have been victorious. **Why do you think that is?**

Deficio: I think the main reason that Korean teams dominated, was that Korean teams came in 5,6 or even 10 years ahead of everyone else in terms of professionalism, culture, infrastructure. Earlier in this interview I mentioned how everyone can put together one line-up that clicks, and you suddenly look great. But when someone leaves, and you have to find new guys suddenly the line-up might fall apart and if you're not able to do the same again and again, then you actually haven't built up the proper infrastructure, culture etc to continue being a top-team, or rebuilding top-teams. I think Korean E-Sports, which obviously is what dominated most of these years, from 2013 to 2017, there's a completely different view on how you do a lot of things. A lot of the culture is is based around being humble, it's based around listening to your leader or to an older person. Age means a ton, so if you have a coach who's thirty and you have a player who is 17, the 17-year-old is naturally going to listen a lot more to the 30-year-old, then in the western cultures, where It's a lot more about building up respect and earning the trust and "I don't know man, maybe I'm smarter than you", kind of thing. And that doesn't mean that the 30-year-old coach is smarter about the game, but at least you're starting to build up a structure. And, that coach can then start saying, "instead of me telling you to do this, I can say, explain why you're doing it", and then the entire team can start to talk about why that wasn't good, we should do this instead. So you've had insane advantages in terms of culture and work ethic. Korean teams in the past would practice and practice, and honestly it's a very unhealthy environment for a lot of them, because it's so stressful. So many of the Korean players, when they go to Western teams now, mainly North American teams, talk about how it's a much more enjoyable environment with way less pressure. You're not expected to sit and grind and grind all the time, but it does mean that their level tends to drop a little bit, because they're not staying razor sharp, and you can only really do that for so many years, before you start naturally burning out. And I think we have seen now, in Korea especially, that the older generation of players, a lot of them are getting replaced now, a lot of them are dropping, they are going to western teams or they are not on the top

teams anymore, and I think a lot of them has hit a point where, you can't keep the grind. You just can't keep doing it. And now these younger ones are coming in and they can do it, because it's all new and awesome. Like Griffin, the top team in Korea now, are only 17- and 18-year-olds. And there are insane. And it's very interesting, but also infrastructure wise I think it's worth adding, that Korean E-Sports has been a big thing for 10-15 years because of Starcraft. So the whole coaching and management structure was already in place when League of Legends E-Sports became a thing. And when I was a player in 2013, the first year Korea won, we were just five players. No one knew anything, we were just sitting there like "you're the manager, okay I'm the manager whatever let's go", there was no infrastructure, and you're competing against a team that had all of that from Starcraft days. So, there were just a lot of things going in Koreas favor. I think China now, it was naturally going to happen at some point because their player base is so insanely huge. It's like 20+ servers, and so many people competing to be the best. So, you get the same culture of people who put an insane amount of hours and effort into it, it's crazy. And there are so many talented players to pick from, eventually at some point the Chinese teams would catch up infrastructure wise to the Korean teams, and then they can just pick so many different kinds of players to use. Obviously IG had two Korean players on their side, but they also had three Chinese players that ended up doing really well. China should over the next many years, be as good as Korea. Based on being able to catch up infrastructure wise and have similar work ethics, and now a way bigger player-base. But I think European teams have proven that they can match individually. I think European teams are getting way more professional, this is a great example of us sitting here in this office, and our players are putting in so much work, and we're trying to do it in a way that's not burning them out. But I think European players can match most of the Asian players individually, and now it's about finding the correct team-setup that has the correct way of playing the game to now beat these teams. Fnatic got close, but then they got 3-0 in the final.

Interviewer: Do you think there's a way to counteract the amount of hours these Asian teams put into the game? Can you reach the same level, without grinding as much?

Deficio: I think you can, if you're doing it smart. I refuse to believe practicing like… Again I don't know exactly how many hours a Korean team is practicing, but I know from talking to a lot of Korean players about the pressure and environment… I refuse to believe practicing 14 hours a day, as an example, every day is the correct way to do it. Because at one point you must hit this mental block, this burnout phase, where you're not really gaining anything, you're just sitting there and just mindlessly playing, so you're not really playing or improving from it. I know, Magnus Carlsen, the world champion in chess, talks about practicing only 4-5 hours really serious hours, and then the rest is spent on other things. Obviously there are other things he can work on, but a lot of time is spent on just relaxing. Because your brain can only handle so much information and only focus so much. So I want to believe that we can get to a point where you optimize the effort and professionalism around practice. That getting the 5-6-7 hours of really good productive practice is worth just as much as playing the 14 hours. Sometimes it's good to go on the grind, new champions or patches are coming out, and if you're feeling it, go on the grind. Spend a couple of days going crazy, but then take a break. I want to believe that is the direction we're heading. I refuse to believe E-Sports is the only place where practicing for that many hours is apparently a good thing, that makes you way better at the game. We also have to keep in mind that Korea now is much longer than in the past. In the past you could grind your heart out for a year, achieve something and then you're just done, this is it and you can cut down a bit in hours and your level may drop a bit, but it's fine because the competition wasn't that bad, and you can do that for a while until you retire. Now, player-careers in Korea are 4-5-6 years long, and you need to have a balance over the years where you won't be killing yourself every day, because you need to grind and grind and grind. Some players can do it, because they just love the game that much, but most players break, because break are necessary. No one really talks about it, but I wonder how big of a problem burnouts are for people around the world. People who get really sick from it or depressed. I don't actually know if it's an issue, but it's definitely something we don't want to see here. We try to give players a break.

Interviewer: My final question of this interview has a local lens attached to it and is related to the Danish position as an E-Sports powerhouse. We've had world champions in FIFA, a very strong presence in Dota, arguably the best counterstrike team in the world with

Astralis, and it's difficult to consider professional League of Legends without mentioning Danish players such as Bjergsen, Jensen, Froggen and so on. Why do you think Danish players are so good at E-Sports?

Deficio: I get asked that quite a lot, and I wish I had a perfect answer, but I think there's a large percentage of young, Danish kids that have access to decent internet and a decent PC/Playstation, and we grow up in a society in Denmark where, there isn't a lot of pressure on us. We don't grow up in a society where you must, the moment school ends go straight to a job to earn some money for yourself or your family etc. and then you come home in the evening and you have to help with certain things and do you go to bed and then you repeat. It's very much a.. It's a great society to grow up in, when you come home from school they have a lot of freetime, they can do some sports, sure, but they also have plenty of hours to play videogames. It's considered okay now, it's not a horrible thing. And it's not a weird thing either. Most kids at this point play something. Fortnite has definitely drawn in a lot more people, also at a young age, but generally everyone plays something. So we have internet, good PC's and access to it, we have a pretty relaxed society, if you consider other places around the word. So there's a lot of people who naturally get a chance to start jumping into these competive games at an early age, and they have enough time to start practicing enough to get meaningful improvements out of it. I'm not saying they should do the 14 hours, but they probably have access to do five hours a day, if they wanted. And in the weekend maybe they do ten hours, so you can play a lot. And then I have this theory as a last thing about it. It's, Danish people, because we are a small country, we have this super competitive drive where if we hear anything related to Denmark – if Denmark wins anything in any sport, all of the Danish people are like "yeeeah we did it, I never watch curling but it's great, Denmark we're the best". I have a feeling that there is a sense of pride that push people forward, especially if they are getting pretty good at something, to be like "I need to do this, I want to get out there and be the guy who did this", so there might be a competitive drive in Danes of proving to everyone else how great we can be. But I don't know, I don't have any proof of that, I just know for myself that I have always wanted to go out and achieve something, or see other Danish people succeed, because it gives you this feeling of "yes, we did it, Denmark did it." Even

though it's really dumb actually in a lot of ways, but it's probably mainly the first point and not as much the second part.

Interviewer: That was my final questions. Do you have anything you would like to add before I officially wrap up this interview?

Deficio: No, not really.

Interviewer: In that case, thank you very much for your time, Martin!