

From Digital Battles to Real-World Challenges: Navigating the Career Transition for Retired E-sports Athletes in China

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Abstract

Due to the rapid growth of the e-sports industry, many young people are now choosing e-sports as their dream career. However, because e-sports athletes usually have short careers, transitioning to a new job after retirement has become an important issue. This study aims to explore the challenges and coping strategies that retired e-sports athletes in China face during their career transitions. The study conducted ten interviews with retired e-sports athletes to explore their personal experiences during career transitions. Using Schlossberg's transition theory, the study focused on how external situations, identity changes, social support, and coping strategies affected their retirement. The findings show that retired players need strong social support, good career planning, and more stable industry regulations to deal with uncertainty. In the end, the study provides several suggestions on how to help retired e-sports players adjust and start a new career.

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From Digital Battles to Real-World Challenges:

Navigating the Career Transition for Retired E-sports Athletes in China

Chapter 1. Introduction

1.1 E-sports Background

E-sports are widely discussed nowadays. In recent years, there has been a rapid expansion of digital technologies and digital platforms across the world. Social media networks are seen as critical digital platforms such as YouTube, Facebook, Weibo, and TikTok, which have facilitated the flow of popular cultural products across the globe and bottom-up dissemination and consumption (Huat & Jung, 2013). This expansion of digital platforms and online business ecosystems has also allowed digital platform capitalism to grow rapidly. John Thornhill (2017) discussed that China's digital economy has become a global trailblazer. In the context of this digital economy, e-sports represent the evolution of human sporting behaviour in the digital age and are a massive development in China (Yue, 2018).

The academic literature introduced digital gaming in the 1980s for the first time, and this concept gradually changed into what is now known as electronic sports (e-sports) (Hamilton et al., 2012). Studies indicated that e-sports refer to electronic sports played competitively through online virtual games and related activities, and are characterized by high-end competition in which people are paid for playing computer games (Taylor, 2012). The way young people participate in and consume sports has changed significantly with the advancement of digital technology, and e-sports, as a product of the

development of digital technology and platforms, has seen a substantial rise in popularity over the past decade (Zhong et al., 2022). Hamari and Sjöblom (2017) provided a detailed definition of e-sports as a form of sport in which the primary activity takes place through an electronic system where the player and the team's inputs and the system's outputs are coordinated through a human-computer interface. In this context, e-sports' outcome occurs in the virtual world, distinguishing it from traditional sports that take place in the real world.

E-sports encompass various individual and team game types, including realtime strategy, multiplayer online battle arenas, first-person shooting games, collectible card games, racing, fighting, and sports games (Olsen, 2015). The 1990 Nintendo World Championships were the most representative iconic of the early e-sports, marking the transition from recreational entertainment to competitive tournaments, and the beginnings of e-sports appeared in the form of local area network parties and small tournaments (Jonasson & Thiborg, 2010). With the expansion of the internet, e-sports gradually shifted from local area networks to online competitions, with the first World Cyber Games (WCG) being held in South Korea in 2000, marking the internationalization of e-sports. At the same time, the massive success of the game Star Craft in South Korea encouraged the popularity and development of e-sports in Asia (Taylor, 2012). Since then, with the rise of live streaming platforms such as Twitch, the audience for e-sports has expanded rapidly, resulting in tournaments such as the games League of Legends World Championship and the DOTA 2 International Invitational Tournament attracting millions of viewers and significant investment. Therefore, e-sports has become a global cultural phenomenon, attracting increasing attention from business sponsors and the media (Lehner, 2016).

In China, e-sports has been approved by the government as official sports in 2003 (Yue et al., 2020). Nowadays, e-sports are moving further into the mainstream and being included in official sporting events. For example, in 2022, e-sports was officially listed as a medal event in the Asian Games in Hangzhou, China, which significantly spread the recognition of e-sports on the global sports and competition stage (Hamari & Sjöblom, 2017).

As the popularity of e-sports increased, significant growth has also been seen in terms of participant, fan, spectator, and market size figures. According to Newzoo (2021), in 2020, viewers and sponsors generated more than 947.1 million dollars for the global e-sports market. In 2021, the game League of Legends World Championship Finals broke ratings records. The five matches between South Korea's Team DWG and China's Team EDG attracted 73,860,742 peak viewers and averaged 30,604,255 viewers per minute globally, including Chinese streaming services (Fudge, 2021). This achievement marks the pinnacle of e-sports as a global cultural phenomenon and demonstrates its enormous market potential on a global scale. The global e-sports market is expected to be worth over \$2.39 billion by 2024. Besides, esports has an audience base of over 540 million people, with the Asia-Pacific region accounting for more than 57 per cent of the audience. China and the Philippines are the major markets in this region, contributing more than 40 per cent of the e-sports fan base. As this trend continues, it is expected that by 2025, there will be more than 322.5 million occasional viewers and 318.1 million fanatics watching e-sports events on a regular basis worldwide (DemandSage, 2023).

China's e-sports industry has experienced rapid growth over the past few years, emerging as one of the most influential e-sports markets in the world. In

2014, a Chinese e-sports team won 5 million dollars in prize money in the international tournament of DOTA2, an event that sparked widespread interest in China and signaled a new level of popularity of e-sports among the younger generation (Zhang et al., 2022). In 2021, China's e-sports market was valued at 167.3 million Chinese Yuan and ranked first in the world in terms of global video game revenues and e-sports tournament viewership. This achievement not only states China's position as the world's largest e-sports consumer market but also highlights its importance in the global e-sports industry (Wu, 2022). According to a report by the China Audiovisual and Digital Publishing Association (CADPA), the number of e-sports users in China was expected to exceed 487 million by 2022, demonstrating the significant market potential of this industry (Chen, 2022).

As the influence of e-sports continues to grow in China, more and more young people want to join this industry and see an e-sports career as a way to fulfill their dreams (Hamari & Sjöblom, 2017). Data show that in 2019, a record number of 145,000 people were employed in e-sports-related jobs in China, while the total number of people employed in the Chinese e-sports industry reached 450,000 people. By 2020, there were more than 700 registered e-sports clubs and more than 6,000 active professional e-sports athletes in China (Yue et al., 2020). These figures not only reflect the rapid development of the e-sports industry in China but also demonstrate its far-reaching impact on the job market.

At the same time, China has the largest live-streaming market in the world, with live e-sports streaming seamlessly blending traditional broadcast media with the fascinating online gaming space (Burroughs & Rama, 2015). Through advanced audio and video content-sharing technologies, e-sports

audiences are able to actively participate in real-time interactions with other enthusiasts and make meaningful connections on a global scale. Chen and Wu (2014) mentioned that although e-sports matches and tournaments are now often held in large stadiums, most of the e-sports consumers primarily watch matches through online streaming platforms, demonstrating the key role of digital media in driving the popularity of e-sports.

1.2 E-sports Athletes Career Characteristics

As a particular form of sport, e-sports share many similarities with traditional sports but also have unique career characteristics. E-sports athletes typically enter the industry around the age of 20, but only around 20% of them maintain a career for more than two years (Ward & Harmon, 2019). In addition, e-sports professional athletes are required to train for long hours every day, which involves complex tactical analysis, strategy development, teamwork, and constant practice (Seo, 2016). Although the standard working hours in China are eight hours per day and five days per week (Zheng et al., 2023), data shows that e-sports athletes in China need to practice more than 14 hours per day and seven days per week (Westcott & Fang, 2019).

The outcome of a tournament also has a huge impact on a player's psychological state. The nature of winning and losing matches can quickly deal a massive blow to a player's confidence, and the sense of loss and frustration can lead to mental health issues (Smith et al., 2022). Due to the young age of e-sports players, they may also experience an identity crisis while facing significant psychological stress and social isolation issues. Many players become professionals at an early stage in their careers, which has a profound effect on their mental health. The competition pressure, fear of failure,

and high public expectations make them much easier to get psychological problems such as anxiety and depression (Reitman et al., 2020).

In addition, although the top e-sports professional athletes can earn considerable income through competition prize money, sponsorship, and live broadcasts, most e-sports players' basic income is unstable. In particular, those who fail to make it to the top clubs have limited sources of income and face a great deal of uncertainty about the financial security of their careers. Compared to traditional sports athletes, e-sports athletes lack job security and long-term career planning, which makes them face more severe financial challenges after retirement (Holden et al., 2017).

Due to these particular challenges e-sports athletes face during their careers, the issue of their career transitions should receive more attention. Extremely short careers make the need for career transitions even more urgent for e-sports athletes (Hong & Hong, 2023). In the process of career change, they often face a series of difficulties and challenges, such as psychological pressure, identity crisis, and social adaptation. Although e-sports athletes develop key skills such as strategic thinking, teamwork, and hand-eye coordination throughout their careers, these skills have relatively limited direct applicability in other industries. This difficulty in transferring skills makes it more difficult for many retired e-sports players to seek new career paths (Reitman et al., 2020).

1.3 Traditional Sports Athletes Retirement

Many researchers have contributed to studying the challenges that traditional athletes face when transitioning out of their sports careers and have discussed the complicated issues they encounter when they retire. Coakley

(1983) and Rosenberg (1981) suggest that athletes often do not retire because they lose their skills or abilities but because they have better future career options available to them. On the other hand, research points out that age is the most important factor in reducing athletes' careers (Wylleman et al., 2004). As the athletes get older, the physical changes, decline in performance, and body injuries not only directly affect their ability to compete but also closely affect their mental well-being at the time of retirement (Cosh et al., 2013). These studies highlight the most important challenges that traditional sports athletes face when they approach the end of their careers.

Lerch (1981) suggests that athletes who pay more attention to their sports performance more than their other roles during their careers are likely to face more difficulties after retirement. This indicates that balancing the improvement of athletic skills and the development of other career skills during a sports career is an important factor that affects athletes' quality of life after retirement. E-sports professional athletes have even shorter and more unstable careers, and the challenges they face in transitioning to new careers are even more significant. This makes it especially important to understand the career transition needs of e-sports players.

During career transitions, athletes often go through the process of establishing a new sense of identity, a shift that can affect their self-confidence and may even lead to an identity crisis (Lavallee & Robinson, 2007; Wylleman et al., 2004). This challenge has been explored in research on identity creation and is highlighted by the case of Craig Fallon, the British 2005 Judo World Champion, who took his own life after retirement due to severe depression (Coverdale, 2020). Athletes therefore need to plan ahead for life after retirement to lessen the challenges that come with retirement, especially in terms of mental health

(Grove et al., 1998; Martin et al., 2014; Taylor & Doverspike, 2003). These challenges related to self-identity and mental health are also present, and perhaps even more so, among e-sports competitors who have much shorter careers and often lack social support and clear guidance for career transitions after retirement.

1.4 Research Aims

This study aims to explore some potential pathways for supporting retired e-sports athletes in China. It seeks to:

- understand the reasons behind the retirement of e-sports athletes
- examining the existing challenges for e-sports athletes in their careers
- exploring existing assistant programs in different context
- find out the applicable and appropriate assistant schemes for esport athletes in China
- develop new recommendations in career transitions for e-sports athletes in China

By doing so, this study will figure out the unique needs of retired e-sports athletes, ensuring they have the necessary tools and opportunities to thrive beyond their athletic careers.

1.5 Research Questions

There are four main research questions will be explored and discussed through this research:

- 1. What factors determine the career longevity of e-sports athletes?
- 2. How can e-sports athletes transfer their skills to future careers?

- 3. What difficulties and challenges do e-sports athletes encounter during their career transition?
- 4. What supports do e-sports athletes perceive as necessary for better adapting to future careers?

Chapter 2. Literature Review

2.1 Definition of E-Sports

As a new global trend, there are ongoing debates about whether e-sports should be seen as a sport. This discussion shows how complicated it is within the usual definition of sports. Parry (2018) strongly believes that esports should not be defined as a sport mainly because they do not involve direct physical action, which is needed in traditional sports. Parry also mentions that e-sports are played using virtual characters, which is an indirect way of control that reduces the 'human' aspect of the game. In other words, esports is not a direct contest between people but rather a sharing of information between computers and virtual worlds. On the other hand, some researchers have said that there are similarities between e-sports and traditional sports, not only in the competitive nature but also in the way events are organized. These events follow the same process from judging, commenting, having live audiences, broadcasting, and giving cash prizes to players (Adamus, 2012; Jonasson & Thiborg, 2010; Lopez-Gonzalez & Griffiths, 2016). However, some researchers argue that even though there are differences between e-sports and traditional sports, e-sports still deserve to be called a sport. They believe that e-sports require high technical skills such as hand-eye coordination, reaction time, and tactical decision-making. Top e-sports players usually need to practice for long hours to improve these skills, just like how

traditional sports athletes train. The worldwide involvement and popularity of e-sports also support its position as a form of sport. As e-sports become more professional and organized, some colleges and universities have started to offer scholarships to e-sports players, and some countries have recognized e-sports players as professional athletes. These changes show that e-sports are slowly gaining more social acceptance, and even though their physical aspect is different from that of traditional sports, their spirit and competitive nature make them similar to the main characteristics of sports (Jenny et al., 2017).

Some psychologists also believe that e-sports have meaningful value. Studies mentioned that e-sports are not just a form of entertainment but also a field that can offer new insights for cognitive science research (Campbell et al, 2018). E-sports are complex, and the players need to handle a lot of information at the same time during the game, make quick decisions, and stay calm under high pressure. By studying e-sports players' performance, scientists can better understand human cognitive processes.

Moreover, Hallmann and Giel (2018) argue that even though e-sports' status is still debated in society, it will gain more acceptance in the future. They point out that as e-sports continue to grow, they will be more recognized by society and academics as a type of sport. However, these discussions also show the industry's challenges, including the lack of social acceptance and the development of its internal systems. These debates about whether e-sports is a sport have not only influenced how scholars view e-sports but also have a direct impact on how society sees e-sports careers. Depending on whether e-sports is seen as a sport or just entertainment, players may be treated differently when it comes to career transitions and social support.

Therefore, balancing the differences between e-sports' virtual and physical aspects within the framework of traditional sports will be an important topic for future research and social discussion. This uncertainty in definition also helps us understand the specific challenges that e-sports players face in their careers.

2.2 E-sports and Traditional Sports

Previous research also mentioned that the e-sports industry prefers to recruit and train younger players because they usually perform better than the older ones (Thompson et al., 2014). For example, younger players tend to have quicker reaction times and better cognitive abilities. To meet these high demands, most e-sports players need to start joining clubs' youth camps as teenagers and go through several years of hard training. This has led to most esports players being forced to retire in their mid or late twenties because they no longer have the best physical and mental abilities needed to compete at the highest level (Zhao & Zhu, 2021; Gera, 2014). Compared to traditional sports athletes, e-ports players face many unique challenges in their careers. These challenges are mainly because e-sports careers are physically and cognitively demanding. E-sports players need to have extremely high reaction speeds, excellent hand-eye coordination, and the ability to stay focused for long periods of time. However, these abilities typically begin to decline significantly after a player reaches the age of 24 (Thompson et al., 2014). As a result, this focus on youth makes e-sports careers relatively short compared to traditional sports athletes like football or tennis players. This contrast further emphasizes the fragility and high elimination rate of e-sports careers (Taylor, 2012).

Hollist (2015) noted that because e-sports players start professional training at a very young age, they often have to give up their education opportunities to

pursue their e-sports professional careers. Studies have shown that many esports players enter this industry at a very young age, usually between 16 to 20 years old, meaning that many of the e-sports players do not finish their education (Hattenstone, 2017). In this case, many e-sports athletes lack the job skills and academic qualifications needed to work in other fields after their esports careers end. This lack of education makes it harder for them to transition and increases their financial stress, not just because they lack knowledge and skills but also because they are less competitive in the job market (Hong & Hong, 2023). These challenges not only show how short e-sports careers can be but also highlight the extra problems players face when they retire. Compared to traditional sports athletes, e-sports players start competing professionally at a younger age, but they have a more challenging time changing careers after retirement. This situation affects not only their careers but also their mental health.

Some studies also suggest that most professional e-sports athletes have had unstable careers and that many of them have not received enough protection from e-sports unions or other related organizations, especially regarding job security and financial stability (Meng-Lewis et al., 2022). In China, according to the Labour and Social Insurance Law, employers must provide their employees with social insurance, including pension insurance, medical insurance, unemployment insurance, maternity insurance, work injury insurance, and a housing provident fund. This social insurance system protects every employee's benefits in China (He et al., 2022). However, because of the unique characteristics of e-sports players, such as unstable income, short careers, and complex business relationships with employers, the connection between e-sports athletes and their employers is complicated and sometimes controversial. As a result, e-sports players' social welfare is still not fully guaranteed,

which makes them face more uncertainties and risks in their lives after retirement (Zhan, 2020).

In addition, there are some differences in how e-sports players and traditional sports athletes train. Traditional sports athletes usually improve their performance through a lot of physical training, while e-sports players mainly train by spending long hours in front of a computer. They rely on quick hand movements and the ability to catch and respond to information on the screen quickly. The high-intensity training not only causes massive physical stress but also tends to lead to the accumulation of mental health issues. In such a working environment, e-sports athletes must maintain a high concentration level and stay in the same sitting position (Taylor, 2012). Researches have confirmed that always sitting for a long time and constantly using a mouse and keyboard can cause serious muscle damage to the back, arms, and other body parts. The high intensive training in front of a computer can also lead to high levels of anxiety and other mental health issues for e-sports athletes. These physical and mental health issues cause more challenges for e-sports players to transition to new careers (DiFrancisco-Donoghue et al., 2019).

2.3 Career Transition System Support in China

The sustainable development of the e-sports industry depends not only on players' performance during their careers but also on their development after retirement. Although more young people are choosing to join professional e-sports, the industry currently lacks effective career transition support for these players (Holden et al., 2017). In China, even though the government is actively supporting e-sports industry's growth, there are currently no specific laws or regulatory policies governing e-sports. Most e-sports activities and clubs in China are organized by third-party companies and lack comprehensive

oversight at the national level (Yue et al, 2020). This lack of attention can negatively impact both the individual player's career and the industry's longterm growth. For this reason, creating a complete career transition support essential for the healthy development system is of the e-sports industry. Through these support systems, e-sports professionals can not only smoothly transition to their post-retirement lives but also continue to contribute to the industry's growth, increasing the overall competitiveness and social recognition of e-sports. Therefore, it is quite significant to study the career transition of e-sports athletes in China. Exploring this issue can not only help better understand the needs and challenges of e-sports players in the process of career transition but also provide references for industry policymakers and related organizations to promote the healthy and sustainable development of the e-sports industry. In China, the career transition paths and support networks for e-sports players still need more development. Retired players often need clearer guidance and necessary career training because they still face many challenges and difficulties then transition.

2.4 E-sports Social Recognition and Support

Social support has a significant impact on the career development of e-sports professionals. Currently, China is actively promoting student-athlete development, especially at the university level, to provide athletes with comprehensive educational support and career development opportunities. For example, the 2023 World University Games in Chengdu featured 6,500 studentcountries athletes from 113 around the globe, an event that not demonstrated China's influence in international only sport but also highlighted the importance the Chinese government places on developing young athletes with both academic and athletic talents (Bernama, 2023).

Additionally, many of China's top universities have developed special admission programs for talented young athletes, allowing them to continue their sporting careers while receiving a high-quality academic education (Xinhua, 2021).

However, even though there are many educational and career development opportunities for traditional sports athletes, professional e-sports athletes have not been properly included in all of the social policies and systems that support these opportunities. Currently, the international sports event qualifications, guaranteed admission to higher education institutions, and the programs offered by sports colleges and universities do not provide suitable support or protection for e-sports athletes. This lack of institutional support means that esports athletes face more uncertainties and challenges when their careers come to an end. Compared to traditional sports athletes, e-sports players have less social resources and less access to skills training during their career transitions, making it easier for them to encounter difficulties after retirement. This comparison shows that e-sports players face more challenges when transitioning to new careers due to their lack of educational background and social support system.

Research also suggests that successful career transitions for athletes depend on many different resources and interventions, such as detailed retirement plans, strong social support systems, and effective coping strategies (Lavallee et al., 2014). These supports are especially important for e-sports athletes, who have more complex career situations. E-sports athletes always start their professional careers at a very young age and reach the peak of their careers earlier than traditional athletes. The challenges they face when transitioning to new careers after retirement are often more complicated. Another related study emphasizes that the relevant stakeholders, such as sports institutions,

sponsors, and key individuals like parents, coaches, and teammates, play a crucial role in career development and career transitions (Wylleman, 2019). These factors not only help e-sports athletes maintain their health and mental well-being during their careers but also support them in making a smooth transition when they retire from their professional e-sports careers.

Similarly, studies also point out that sports organizations and trade unions have a significant responsibility in helping professional players with skills training and career transitions (Anderson & Morris, 2000; Park et al., 2013). Relevant career transition support measures are particularly crucial for e-sports players, as their careers are usually short and highly dependent on specific skills. However, the e-sports industry and related sectors in China still face many challenges in providing these players with career transition support and educational opportunities.

Therefore, the e-sports industry and relevant government departments need to increase their efforts further to provide more educational opportunities and socially recognized support to help e-sports athletes make a successful transition to a new career at the end of their e-sports professional careers. This includes not only strengthening education and vocational skills training for e-sports players but also establishing a more comprehensive social security system to ensure that they can continue to realize their potential after retiring from e-sports and avoid falling into career and livelihood difficulties due to a lack of support. Through social policies and systems, e-sports players will be better able to cope with the challenges of career change and achieve both personal and professional success.

2.5 E-sports Athletes Career Transitions and Challenges

The unique nature of e-sports players' careers presents them with special challenges regarding career transitions. While e-sports players' training focuses on hand-eye coordination, strategic thinking, and cognitive flexibility during competition, applying these skills in other careers is always limited. Research has shown that in the first-person shooting game Counter Strike Global Offensive, communication skills are a key factor, even more important than game skill performance (Nielsen & Hanghøj, 2019). The ability to communicate effectively within teams is essential for determining the outcome of a match, and developing this ability could also be necessary for career transitions. However, relying on this key skill alone is not enough to ensure success in other careers, especially without relevant career transition support. E-sports professionals acquire very few skills applicable to other careers during their time in the industry, leading to more significant difficulties when transitioning after retirement.

Studies also indicate that the responsibility and current status of the e-sports industry in supporting players' career transitions needs to be further established. Although e-sports has become a dream for many young people, e-sports athletes still face career instability and post-retirement struggles. Bingöl & Cakir (2021) suggested that athletes who have a clear plan for their future have significantly higher self-confidence and competition performance. However, most e-sports athletes lack pre-retirement planning and are confused about future career transitions (Hong & Hong, 2023). They need to learn how to switch and utilize their skills in other careers after retirement. In addition, they need more professional guidance to help them make a successful

career transition decision and mitigate the challenges associated with retirement (Martin et al., 2014).

In addition to these factors, which are closely related to the e-sports industry, political policies in some countries or regions can also have an impact on retirement and career transitions. Hong and Hong (2023) mentioned that in South Korea, military service is one of the main reasons for athletes' retirement. 18 months of military service is mandatory for all non-disabled male Korean (Kim citizens, usually between their early twenties et al., 2017). This indicates that athletes from different regions and cultural backgrounds may face different career challenges.

Despite the growing number of professional e-sports athletes in China nowadays, there is still very limited planning and exploration for Chinese e-sports professionals who face post-retirement career transitions. Therefore, this research will thoroughly explore the career challenges that professional e-sports athletes face after retirement in China. It aims to provide guidance and support for this group, helping them navigate both the internal and external aspects of their career transitions.

Chapter 3: Theoretical Framework

Bobek and Robbins (2005) emphasize that career transition study should be grounded in a theoretical framework. This is crucial because theory provides direction for career paths, helping both employees and individuals undergoing the transition to better understand their specific needs. Though there are many existing career transition models, Schlossberg's Transition Theory (Schlossberg, 2011) can be well applied as the theoretical framework for this research. This

theory provides a deep understanding of how people respond to life transitions, which matches well with the research aims of this study.

3.1 Overview of Schlossberg's Career Transition Theory

The main idea of Schlossberg's transition theory is to understand how individuals cope with life changes such as career transitions, and how they adapt to the situations. The theory introduces a 4S model, focusing on four key factors during career transitions, which are situation, self, support, and strategist. This research will also following the 4s model structure to explore the research questions.

Situation: Situation factor refers to the specific context and situations in which the transition occurs. For retired e-sports athletes, this involves determine the reasons behind their retirement, such as physical injuries, mental health challenges, age-related issue, declines in performance, or external pressures like changes in the game or club structure, unfair treatment, or financial instability. It also considers whether their retirement was their own choices or forced, the timing of their retirement, and the other career options available to them at that time (Anderson et al., 2011). By analyzing these specific situations, this study will explore how these contextual factors influence the transition process for e-sports athletes moving away from professional gaming.

Self: Self component discusses the personal characteristics and attitudes going through a career transition. This includes their personal identity, self concept and resilience. For e-sports athletes, who often define themselves by their gaming skills and public image, quitting professional gaming can significantly impact their sense of identity (Ebberwein et al., 2004). This study will investigate how retired athletes perceive themselves after retirement, how they

redefine their identity outside the e-sports industry, and how various personal factors, such as age, gender, past experiences, current life stage, and personal values, affect their ability to adapt to a new career path.

Support: Support in this career transition theory stands for the social support systems available to individuals during career transitions. Positive social support helps reduce psychological stress, strengthens resilience, and protects both physical and mental health (Ozbay at al., 2008). This includes various types of supports from family, friends, teammates, professional sources, and institutional resources like career assistance or mental health counselling. This study will explore the types of support the athletes receive and identify any gaps in support that may have hindered their career transitions. The analysis will consider how different types of emotional, informational, and financial support impacted these e–sports athletes' ability to adapt successfully to their new careers.

Strategist: Strategist looks at the coping strategies and action plans that individuals use to manage their career transitions. Pearlin and Schooler (1978) described coping strategist as actions people take to protect their mental health. They explained that people in transitions use strategies to change their situation, adjust its meaning before stress happens, or control the situation after stress appears. For retired e-sports athletes, this could involve applying transferable skills such as strategic thinking and teamwork, pursuing further education, starting a business, or participating in other roles within the e-sports community. This study will explore the various strategies the e-sports athletes use to adapt to their new careers, evaluate the effectiveness of these strategies,

and identify any effective methods that could help inform future support programs for similar career transitions.

3.2 Reasons for Choosing Schlossberg's Transition Theory

This study will apply Schlossberg's transition theory for the following reasons:

Multi-Angle Analysis of Transition Process: Schlossberg's 4S model in the career transition theory provides a comprehensive framework for analyzing the transition process from various perspectives. This approach is well-suited to examining the complex experiences and challenges that retired e-sports players face during their career transitions. By applying this theory, this research can thoroughly analyze the specific situations encountered by e-sports athletes, their personal characteristics, the support systems they relied on, and the coping strategies they used. This in-depth analysis will enhance the understanding of their career transition experiences (Anderson et al., 2011).

Customize for Individualized Career Transition Paths: The career transitions of retired e-sports players are often highly individualized due to different backgrounds and personal characteristics. Schlossberg 's transition theory focuses on how individuals navigate the challenges of career transitions through their own perceptions and resources. This allows this study to explore the unique experiences and needs of retired e-sports players as they transition into new careers.

Emphasis on Support Systems: Schlossberg's transition theory pays significant attention to the role of support systems during career transitions, which is especially relevant for retired e-sports players. These athletes may encounter

issues such as loss of identity and a lack of social support after retiring. The theory will enable the study to explore how these support systems influence the transition process and to determine which types of support are most effective. This analysis provides a solid foundation for developing future support programs to assist retired e-sports players.

Structured Framework for Coping Strategies: Retired e-sports players may try a variety of coping strategies during their transition, such as learning new skills, pursuing a new career path, or starting a business. Schlossberg's theory offers a logical framework to systematically analyze these strategies and evaluate their effectiveness. By applying this theory, the research can identify which coping strategies are most successful and which may require further improvement.

High Generalization of the Theory: Schlossberg's transition theory has been widely applied to various career and life transition cases and is well known for its generalization. Although e-sports is a relatively new profession, the theory can be effectively adapted to research in this area. By applying the theory to the study of career transitions of retired e-sports players, this research can contribute some new theoretical insights to this field.

3.3 Application of Schlossberg's Transition Theory

This study will explore the following four dimensions of Schlossberg's theory specifically.

Understanding the Situation of Retirement: First, this research will focus on identifying and analyzing why e-sports players retire, which means that the situation of their retirement will be explored, for example, whether the

retirement was planned or occurred suddenly, whether they had control over their retirement, the external pressures that influenced this decision, and how this affected their transition experience. Understanding the context will provide critical insights for analyzing the immediate challenges these athletes face after retirement.

Analyzing Self Attributes and Identities: Secondly, this study will examine the aspect of self by exploring the athletes' self-perceptions after retirement. This includes investigating how they cope with the loss of their e-sports identity, their readiness for a career change, their level of psychological resilience, the social situation they find themselves in when they retire, and how personal factors such as past life experiences affect their ability to adapt to a new career. This exploration is critical to understanding the internal struggles and motivations that drive their transition process.

Exploring Social Support Systems: This study will explore the support factor by identifying the support systems available to previous e-sports athletes and assessing their effectiveness. It will also explore how support from family, friends, and the wider e-sports community helped or hindered their transition. All types of support will be discussed, including emotional support, information support, and financial support. In addition, the role of any institutional support, such as career counselling or vocational skills training programs, and its role in an athlete's career transition will be deeply investigated.

Evaluating Coping Strategies and Adaptive Capacity: Lastly, this study will focus on the strategies that these athletes used in their career transitions. It will investigate the specific actions they took to structure their new careers, how

they transferred their skills from e-sports to other fields, and the innovative strategies they developed to adapt to non-gaming careers. The research will include analyses of the effectiveness of these strategies and recommendations for future support mechanisms based on success examples.

Chapter 4. Methodology

4.1 Method Design

This research used a qualitative research method, specifically through individual in-depth online interviews, to explore the personal experiences and feelings of retired e-sports athletes during their career transitions. Qualitative research is a good choice for this study for several reasons:

Exploring Personal Experiences: This study aims to understand the personal experiences, feelings, and challenges faced by retired e-sports athletes. These types of questions are best explored with qualitative methods. As Alshenqeeti (2014) mentioned, non-numerical data can better describe and explain people's behaviors and experiences. The interview process allows this study to deeply explore each participant's experiences, giving rich and detailed information that shows the complexity of their career transition and re-employment processes (Kvale, 1994). Additionally, qualitative interviews can be flexible, allowing questions to change based on what the participant says, which can lead to more open and honest communication (Sofaer, 1999).

Capturing Subjective Experiences: Qualitative research is quite useful at capturing how people feel and what things mean to them. This is important for understanding how retired e-sports players feel about changing their identities,

what support they need, and how they deal with the challenges. These important themes can only be fully understood through the personal stories shared by the participants, rather than through numbers or statistics.

Flexibility in Understanding Different Perspectives: Qualitative research is also useful because it allows this study to understand the different perspectives of various e-sports professionals and see how their experiences might different from each other during a career transition. Since each retired e-sports player's experience and backgrounds might be different, qualitative research allows respond to these differences and giving a more detailed analysis.

By using these methods, this study aims to gather a comprehensive understanding of the career transitions of retired e-sports athletes.

4.2 Recruitment

4.2.1 Targeted Population

This study conducted ten interviews with ten retired Chinese professional e-sports athletes. Participants were chosen using purposive sampling, a common method in qualitative research, for the following reasons:

Relevance to Research Questions: Purposive sampling allows this research to select participants based on specific criteria, making sure that the interviewees and the information they provide are closely relevant to this research questions (Cresswell & Clark, 7). Since this study focuses on retired e-sports players, choosing people who have had professional e-sports careers experience and have retired will ensure that the collected data is both deep and relevant.

Richness of Experience: This method of sampling helps pick participants who have a lot of experience and can offer valuable insights (Patton, 2014). This is especially important when studying the career transitions of retired e-sports players, as the research need a detailed understanding of their unique challenges and how they cope.

Diversity in Sampling: Purposive sampling also helps ensure that this study has a diverse group of participants (Patton, 2014). By including players from different cultural backgrounds, genders, career experiences and reasons for retirement, this study can provide more complete findings, making it more comprehensive and representative.

4.2.2 Recruitment Criteria

- Professional Background: Participants must be adults who have worked as professional e-sports athletes and have competed in recognized e-sports events.
- Retired Status: To ensure they have had enough time to reflect on their experiences, participants must have been officially retired for at least six months.
- Reason for Retirement: The study aims to include participants who have retired for different reasons, allowing this study to capture a broad range of experiences.
- Duration of Retirement: To keep the study relevant to the current state of the industry, participants should have retired within the last five years.

4.2.3 Recruitment Channels

In order to find eligible participants, recruitment will be carried out through the following multiple channels:

- E-sports organizations and clubs: Contact major e-sports clubs and organizations in China to find retired professional players through their networks.
- Social media platforms: Post recruitment information on Chinese most popular social media platforms such as Weibo, Bilibili, and Red to attract potential participants.
- Professional networks and referrals: Utilize professional networks in the e-sports industry, including referrals from coaches, agents and current players, to find retired players who meet the criteria. Personal referrals usually help find high-quality participants because the referrer understands the research and know better about the referred person.
- E-sports forums: Post recruiting announcements in e-sports events, forums,
 and communities to reach potential participants directly.

4.2.4 Recruitment Process

- 1. An invitation letter outlining the purpose of the study, the interview process, and ethical consideration will be sent to the potential participants contacted through the recruitment channels via email or social media platforms.
- 2. Prospective participants will be asked to complete a short questionnaire to confirm that they meet the recruitment criteria, including basic information such as age, background in the e-sports profession, and reasons for retirement.

3. Eligible participants will receive a consent form detailing the purpose of the study, the nature of participation, guarantee of confidentiality, and their right to withdraw at any time. Consent will be obtained from participants prior to conducting the interviews.

4.3 Data Collection

Data were collected through in-depth semi-structured interviews, which are well-suited for this study because of several benefits.

Firstly, semi-structured interviews are very flexible. This method allows the interviewer to explore specific topics more deeply based on what the participants say. The interviewer can ask follow-up questions or change the order of questions to better understand the participant's answers. It provides a flexible way to fully explore the participants' personal experiences while making sure that the main research questions are answered (Kallio et al., 2016). This flexibility is especially important when studying the career transitions of retired e-sports players because each participant's experiences and thoughts can be very different. This flexibility helps the interviewer get a clearer and more detailed picture of each participant's unique experience.

Secondly, semi-structured interviews are very open-ended, allowing participants to share their feelings and thoughts in their own words. This approach lets participants talk about what matters most to them without being limited by fixed questions. This method allows for the discovery of new and important themes that may come up from the participants' unique experiences (Rubin & Rubin, 2011). When studying retired e-sports players, gathering this kind of deep narrative data is essential for understanding the challenges they face and how they deal with them during their transition process.

This helps the researcher find new insights that might not have been considered before.

Thirdly, the informal, conversational style of semi-structured interviews helps build trust between the interviewer and interviewees. This trust encourages participants to share their real experiences, feelings, and emotions. Creating a comfortable environment is key to making participants feel safe and willing to open up about their personal stories. Building this level of comfort is important for exploring the emotional and psychological aspects of the participants' experiences (Brinkmann, 2013). In this study, where exploring the career transitions of retired e-sports players may involve topics like personal identity and work attitudes, semi-structured interviews are a good way to get honest and detailed feedback. The more relaxed and trusting the relationship between the interviewer and participant, the more honest and detailed the responses will be.

4.3.1 Interview Process

An interview guide was developed in line with the research goals and Schlossberg's theory of career transition. This guide helps ensure that all important topics are covered during the interviews while still allowing flexibility for the participant's input. The main topics include reasons for retirement, how participants see their identity after retirement, the support they received during their career transition, and how they are adjusting to a new career. These topics are designed to give a full picture of the participants' experiences and feelings during their career transitions. All interviews were conducted via an online video conferencing platform, like Zoom or WeChat, depending on what the participant prefers. This flexibility in choosing a platform ensures that participants can easily join the interview, making them more comfortable and

willing to participate. Each interview took about 60–90 minutes to allow enough time to thoroughly explore the relevant topics. This amount of time ensures that participants have enough time to share their experiences without feeling rushed. With the participant's permission, all interviews were transcribed for later analysis.

4.4 Ethical Considerations

Ethical approval was obtained from UCL's Ethical Committee before data collection began. This approval ensured that the study followed all necessary guidelines to protect the participants. Participants were fully informed about the purpose of the study, what their participation involved, and their right to withdraw at any time. Being transparent was important for building trust and ensuring that participants felt safe and respected throughout the study. Additionally, all data were anonymized to protect participant identity. Pseudonyms were used in reports, and any identifying information in the transcript was removed. This step was important to maintain confidentiality and protect the privacy of participants. Transcripts and other data were stored securely on UCL One Drive. Only the researcher and the supervisors had access to the data. By limiting access to the data, the study ensured that sensitive information was kept safe and secure.

4.5 Research Credibility

To ensure the study's credibility and trustworthiness, the study compared and contrasted multiple sources of data provided by different participants during data analysis. This process, known as triangulation, helped confirm that the results were accurate and not based on the views of just one participant (Patton, 1999). The research also shared the findings with the participants for

feedback to ensure that their opinions and views were accurately reflected (Hoffart, 1991). By involving participants in this way, the study ensured that the results truly represented their experiences and perspectives.

Chapter 5. Coding Process

Through the research methodology and interview plannings, this study successfully recruited 10 eligible participants as Table 1 shows:

ID	Gender	Age	Game	Career	Reason for	Education	Current Status
			Program	Length	Retirement	Status	
1	Female	25	PUBG	2	Game	College	Work in game
			Mobile	years	reconstruction		company
2	Male	26	Overwatch	6	Game's	College	Graphic
				month	copyright		designer
				s	issue, age		
3	Male	25	Naraka:	8	Club	Middle	Game
			Bladepoint	month	reconstruction	school	companion
				s			
4	Female	22	Honor of	3	Club	College	Own a women
			Kings	years	reconstruction		gaming
							companion
							group
5	Male	23	Honor of	4	Age	High school	E-sports coach
			Kings	years			
6	Male	23	Valorant	2	Game's	High school	International
				years	copyright issue		Airfare Agent
7	Male	22	League of	1 year	Low gaming	Middle	Gaming video
			Legends		performance	School	creator and
							streamer
8	Male	23	Overwatch	1.5	Parents Forced	Post-	Student
			& Valorant	years	& Injury	graduate	
9	Male	28	Overwatch	1 year	Conflict with	High school	Entertainment
					club		

10	Male	24	Overwatch	5	Family Issue	College	Student
			, PUBG,	years			
			Valorant				

Table 1. Interviewee basic information

Throughout the data analysis process, this study used the grounded theory method introduces by Glaser and Strauss (1968). Grounded theory is recognized as a reliable qualitative research method. It allows researchers to directly identify and summarize concepts and categories from raw data collected through actual observations. The method helps to create hypotheses or develop theories by further exploring the logical relationships behind the observed phenomena. It is a bottom-up approach to building theories from observed events.

After completing ten interviews and converting them into text, this study used Nvivo12Plus software for qualitative analysis. After the initial review and organization of the interview materials, the next step was to code the interview texts using grounded theory methods, including open coding, axial coding, and selective coding, to identify categories and their relationships and to explore the current state of e-sports athletes' retirement and career transitions. Before coding, the interview data were analyzed for word frequency, and after removing irrelevant words, a high-frequency word cloud was created, as shown in Figure 1. In this figure, the larger the font size, the more frequently that word was mentioned. The figure shows that the in-depth interviews mainly focused on topics such as career, club, player, school, team, family, retirement, and other related aspects.



Figure 1. Word frequency cloud of interview text

5.1. Open Coding

First, to preserve the meaning of the original materials as much as possible, the interview texts were distilled into more concise concepts, resulting in 121 concepts. Next, these concepts were categorized. By analyzing and comparing the concepts, the same or similar information was grouped into corresponding categories, leading to a total of 23 categories, as Table 2 shows.

category	Initial concept	Original material (partial)		
Social security and remuneration	,	The salary was decent, so they eventually allowed me to give it a try.		
Team game experience	Bad training experience. Competition among players is fierce. Professional performance is average. Team disharmony. The game has no future. The team quality is not high. The team was disbanded	The team often had arguments and conflicts.		

External factor	Family changes lose opportunities. Game copyright issue. Platform violation. The salary is too low. There are few opportunities in my hometown. There is no mature training system	In my hometown, the development of e-sports is not good, and opportunities are scarce, so I didn't continue down the e-sports path.
Retirement control	Conflict with the leader forced to quit. External factors forced retirement. Quit because of illness. Take the initiative to retire. Unable to continue due to insufficient ability.	During my undergraduate years, I played Valorant professionally for a year, but I retired due to an injury.
Retirement motivation	Heavy training task. It is difficult to adopt a new team. Relatives and friends leave. There is no chance to continue.	At that time, there were staff members who suggested I join other clubs, but I found it difficult to get along with new teammates, and I was also feeling very exhausted, so I decided not to continue.
Emotional experience	Face mental stress. Feel confused. Feel insecure. Have great enthusiasm. Regret of leaving the industry.	After that, I felt confused and worried about my future, I don't know what to do. I have strong passion on e-sports, and I really want to stay in this industry.
Identity change	Become an e-sports coach. Engaged in self-media. Full- time game companion. Go back to school. Start a business. Switch to graphic designer. Transfer to the entertainment industry. Women's group manager. Work in a game company	Currently, game companionship are my main sources of income.
personal traits	Develop a good attitude. Develop a strong character. Like making friends.	After retiring, I didn't leverage the connections or skills I gained during my professional career, but I did develop a more resilient mindset.

Physical condition	· ·	I felt extremely tired, my eyes were strained. My shoulders and back also started to hurt.
Psychological status	Losing confidence leads to retirement. Mental stress is great. Serious mental anxiety. Training pressure is high.	During my career, the pressure was immense, and I was physically and mentally exhausted.

Table 2. Interview open coding table (partial)

5.2 Spindle Coding

Axial coding is a secondary analysis that builds on the initial open coding. It involves integrating independent and scattered open codes that have unclear conceptual relationships. This process further analyzes the internal relationships at the level of initial categories. Then, it summarizes and abstracts these categories into main higher–level categories based on shared and associative relationships (Strauss, 1987). The concepts generated from open coding were grouped together, mainly by merging similar words and coding similar meanings. This process ultimately resulted in four primary categories, and the results of the axial coding are shown in Table 3.

Main category	Cotogony		Eroguenov	Reference	
Main Category	Category		Frequency	point	
	Social	security	and		
Past experience	remuneration	on	9	14	
	Team game	e experience	5	13	
Reasons for retirement	External factor			4	8
	Retirement control			10	12
Retirement motivation		motivation		5	8
Career impact	areer impact Career prospects			4	7

	Personal development influence			4	7	
	Transfer	of	skills	and		
	experience				7	8
Personality and						
psychological influence	Emotional	experie	ence		7	13
	Identity cha	ange			10	11
	personal tr	aits			3	5
	Physical co	nditio	n		5	8
	Psychologi	cal sta	itus		5	11
Challenge of risks	Career development challenges			7	13	
	Manageme	nt cha	llenges		4	7
Support situation	Emotional support			8	15	
	Financial s	upport			3	3
	Information	supp	ort		10	28
Development tactics	Developme	nt plar	nning		6	7
	Training	and	cont	inuing		
	education				5	5
	Transforma	ation s	trategy		5	5
Implement strategy	Adaptive strategy				3	4
	Coping me	thod			3	4

Table3. Interview spindle coding table

5.3 Selective Coding

Selective coding involves choosing a core genus after systematically analyzing all the identified categories. Through ongoing analysis, this core category is then connected to related subcategories to systematically explain and validate

the relationships between the primary and secondary categories. Additionally, selective coding helps identify any concepts that may need further refinement or development. The purpose is to further clarify the relationships between the main categories (Williams & Moser, 2019). By progressively clustering the coding nodes, this study identified four core categories from the interviews that align with the 4S theoretical model applied in the research, which are retirement situations, self-identities, social support, and coping strategies.

Core Areas	Main category			
Retirement background	Past experience			
-	Reasons for retirement			
Personal attributes	Career impact			
r Groonal attributed	Personality and psychological influence			
Social support system	Challenge of risks			
	Support situation			
	Development tactics			
Coping strategy	Implement strategy			
	r			

Table 4. Core coding table of interviews

Chapter 6. Data Analysis

6.1 Background of Retirement

Retirement of e-sports athletes is influenced by a number of factors, including financial pressures, team environment, industry changes, health issues and

family factors. These factors interact with each other to influence athletes' retirement decisions.

6.1.1 Financial Pressure and Lack of Security

Financial factors are one of the main reasons that push e-sports athletes to retire. Many interviewees mentioned that the base salary for e-sports athletes is generally low, and the salary structure across the industry is unstable, causing them significant financial stress throughout their careers. Although some athletes find the salary manageable, the lack of insurance and retirement benefits leaves them facing considerable financial uncertainty when they retire. As a participant (interviewee 03) stated,

"During my time as a professional player, the base salary was very low, with most of my income coming from tournament bonuses. I didn't receive any social benefits like insurance or retirement plans".

This highlights the financial pressures faced during their careers and how the lack of financial security after retirement leads many e-sports players to end their careers sooner than they might have otherwise.

6.1.2 Team Environment and Training Conditions

Teamwork is important in e-sports, and a positive team environment and high-quality training are essential for an athlete's career growth. However, many interviewees pointed out that issues such as poor training environments, inadequate coaching, and unreasonable training methods can directly affect players' career development and psychological well-being. The overall quality of the team, including the skill level of the teammates, the coach's abilities, and

the professionalism of the management, can all have a significant impact on the performance and career prospects of e-sports athletes. In the highly competitive e-sports industry, disharmony and internal conflicts among players often lead to teamwork problems, which in turn affect performance and career development. Some players even choose to retire early because of these issues, for example, a participant (Interviewee 07) shared that,

"The team often had arguments and conflicts. Despite the glamorous appearance, the internal environment was poor, with excessive competition, hostility, frequent ridicule, verbal abuse, and even physical fights".

6.1.3 Industry Changes and Club Dissolution

The rapid changes in the gaming industry are also significant factors that push players toward retirement. The closure of servers, cancellation of tournaments in some games, game copyright issues, and shifts in market strategy, can all make it impossible for players to continue their careers. Additionally, the clubs' internal management problems or lack of funds, also forces players into early retirement. Many interviewees mentioned that their decision to retire was closely tied to these external changes. For example, a participant was forced to retire because her team was dissolved due to management decision.

"After the competition ended in late 2022, the club disbanded due to the owner's decisions, and I lost motivation to continue, so I quit the field' (Interviewee 04).

In addition to unforeseen reasons like club dissolution, changes in game structure and copyright issues have also greatly impacted the careers of professional e-sports players. In this study, three of the interviewees mentioned

that they retired because the structure of the game had changed, making it difficult for them to see their future path clearly. For example, Interviewee 02 said,

"Due to some issuing and copyright issues with the game in the Chinese market and structural changes within the game, many players had quit the game".

Interviewee 02 also shared his opinion on this matter. He believes that when choosing a game to pursue professionally, athletes should do enough research on the industry and the game itself to ensure smoother and successful career development.

"If you choose to become a professional player, it's important to pick a project with a well-established system" (Interviewee 02).

6.1.4. Health and Family Factors

Physical health issues and family changes are also major reasons why e-sports players choose to retire. The long hours of intense training and competition often lead to varying degrees of physical injuries, which can hinder players' ability to continue their careers. Additionally, family pressure and expectations play a significant role in their decision to retire. For example, Interviewee 09 shared,

"The reason I retired was that, although I had the skills, I felt my body could no longer handle the demands of professional gaming. And my family pushed me to join the national military training".

Another example is that one of the participant was forced to retire because external family and club contract issue.

"In the final stage of my career, my father was diagnosed with cancer. At the time, I had signed with a team and had a streaming contract. However, the streaming platform breached the contract, and if I wanted to re-sign, my earnings would be significantly reduced. These external factors forced me to end my professional career" (Interviewee 10).

6.1.5 Internal Factors

In addition to external objective factors affecting e-sports athletes' retirement, some professional players also choose to retire because of their own internal issues. Some of them may have had better plans or felt the need to pursue education or other jobs to make ends meet. For example, Interviewee 08 mentioned,

"I believe that pursuing a career in e-sports doesn't offer as many opportunities as studying. I decided to quit, believing that academics offers a better future".

6.2. Impact of E-sports Careers on Personal Development and Future Prospects

Engaging in an e-sports career has affected personal development and life in many ways. The interviewees shared their views on the future of the e-sports industry and how their e-sports careers have influenced their personal growth and professional trajectories.

6.2.1. Outlook on the Future of the E-sports Industry

Many interviewees were optimistic about the future of the e-sports industry. They believe that, although there are still many misconceptions about e-sports

in society, establishing a solid training system and training more talent will help change these perceptions over time. As a growing field, e-sports has a broad development potential, with more opportunities likely to emerge in the future. As a participant (Interviewee 08) mentioned,

"I am glad that I played professional e-sports because I found that the industry suits me well, and I want to contribute to the misconceptions about e-sports in society".

This indicates that the e-sports industry not only holds significant potential but also attracts individuals passionate about contributing to its growth. However, some respondents also pointed out that despite the widespread interest in the e-sports industry, only a few people achieve success in this field. Additionally, the number of female players in e-sports is relatively small, and there is some unequal treatment between male and female athletes in the e-sports industry. For example, one participant experienced unequal treatment when she tried to find opportunities with other teams. She believes that e-sports is not welcoming to female players, and there is also a stereotype that e-sports athletes are all male.

"When I submitted my resume to national league teams, all teams didn't consider female players and didn't recognize experience from the women's league" (Interviewee 01).

6.2.2. Impact of E-sports Careers on Personal Growth

An e-sports career has a profound impact on the personal growth and development of the e-sports athletes, influencing both character building and skill enhancement. Due to the demanding schedule of e-sports training and

competitions, many e-sports athletes have had to sacrifice socializing time, which has led to reduced contact with friends. The example from a participant illustrates how an e-sports career can affect personal life, particularly by distancing individuals from their social relationships.

"During my time as a professional player, I lost a lot of contact with my friends. I spent most of my time on training" (Interviewee 02).

At the same time, some e-sports athletes chose to return to school after gaining some experience, in order to improve their overall skills and professional competitiveness. For instance, some interviewees opted to enter the entertainment industry or became coaches to pass on their knowledge and skills to new e-sports athletes. Interviewee 05 mentioned,

"I felt that I still lacked confidence and wasn't fit to be a professional player, so I joined an e-sports school to train beginners. After gaining some experience, I went on to become a team coach at a legitimate club".

6.2.3. Impacts of E-sports Careers on Personalities and Psychological States

Engaging in e-sports careers also significantly impacts the athletes' personalities and psychological states. The intense nature of e-sports competitions and the pressure to win can place players under substantial mental strain. Throughout their careers, some participants may feel uncertain about their future and struggle with making decisions. An example from participant (Interviewee 04) shared,

"After retirement, I felt confused and worried about my future, I don't know what to do".

Additionally, while some e-sports practitioners are driven by their passion for the field, which motivates them to continue developing their skills, others face identity shifts and challenges as they transition from being e-sports athletes to pursuing other careers. For example, Interviewee 10 mentioned,

"Adjusting to student life again brought noticeable differences. My schedule was difficult to normalize, and returning to a student's routine was challenging".

These changes indicate that the impact of a career in e-sports extends beyond professional life, affecting various aspects of a person's life, including their personal identity and daily routines.

6.2.4. Diversity of Future Development and Career Transitions

As the e-sports industry continues to grow, many practitioners are exploring various e-sports-related career options. In addition to becoming coaches, team leaders, or employees of gaming companies, the rise of independent media has also opened new career paths for e-sports practitioners. For example, the management of women's companion group has become a career choice for some players within the industry. For example, a participant's experience highlights the long-term impact that a career in e-sports can have on an individual's professional development.

"I have a strong passion for e-sports. I started a women's game companion group. I had good relationships with other female professional players and managed to bring many friends into the group" (Interviewee 04).

6.3 Social Support System

Social support systems are very important for the career growth and personal development of e-sports athletes. This support mainly includes emotional support, financial support, and informational support. Together with all the types of supports, e-sports athletes can better handle their career transition challenges and make better career choices.

6.3.1. Emotional Support

Emotional support is one of the most important factor in the training and career transitions of e-sports athletes. For e-sports players, their coaches play a vital role in their career life, because they not only provide technical guidance but also by offer encouragement and career advice to the athletes. With emotional support from coaches or teammates, e-sports athletes can well improve their skills, boost their self-confidence, and face career challenges with a more positive attitude. Emotional support is especially important for those who are passionate about their profession, as it helps them overcome difficulties and maintain their motivation.

Support from family members is also crucial for e-sports athletes. When families understand and support their career choices, e-sports athletes often feel more secure and motivated. However, many interviewees mentioned that their families were not supportive of their decision to pursue a career in e-sports, which often led to additional psychological pressure and career uncertainty. For example, Interviewee 09 said,

"My family didn't support my decision to pursue e-sports at the time, thinking it was not a proper career".

On the other hand, support from friends played a positive role in the careers of e-sports athletes. For example, a participant mentioned that the support from her friends greatly increased her confidence and helped ease her concerns about her future career.

"My friends were very supportive, especially during my streaming and e-sports career" (Interviewee 01).

6.3.2. Financial Support

Financial support is also essential for the ongoing development of e-sports athletes. Family-provided funds can help these individuals attend training courses or pursue further education, thereby increasing their competitiveness in the industry. Interviewees 08 and 10 mentioned that their parents provided financial help for continuing education, enabling them to return to school and have more career options after graduation. However, some e-sports athletes face challenges in accessing sufficient learning and training opportunities due to a lack of funds, which can limit their growth potential.

Financial support from clubs is also important for helping e-sports athletes continue their professional development. Clubs typically provide athletes with training resources, living allowances, and other forms of support. However, if athletes lose the support from their clubs, they may encounter financial difficulties or even be forced to end their e-sports careers. Although financial support is vital for the career transition process, only a few interviewees reported receiving such assistance.

6.3.3. Information Support

Establishing and maintaining good relationships within the industry is particularly important. Many interviewees noted that the problem of information opacity is more severe in the e-sports industry, which can significantly impact career transitions. Due to limited or unclear access to information, many e-sports athletes may struggle to stay updated on industry trends or opportunities, causing them to miss out on important career development chances. Relationships in the gaming industry are not only essential for accessing information but also have a direct impact on career opportunities. As Interviewee 03 mentioned,

"It's important to build good relationships with both players and management. If your relationships aren't strong, you might miss out on job opportunities and information about openings".

Interviewee 10 also emphasized,

"In the e-sports world, relationships are crucial. If you have good relationships, you'll receive preferential treatment. Even if you fall out with your original club, other clubs with whom you have good relations may still offer you opportunities".

6.4 Coping Strategies

Retired e-sports athletes faced with career transitions used various strategies to adapt to their new careers. Some athletes had clear career goals and knew their transition paths, while others continued to explore and search for the right direction during their career transition. These coping strategies helped them

find a new niche in their post-retirement careers and laid the foundation for their future development.

6.4.1. Clear Career Goals and Exploring New Areas

Some interviewees quickly established clear career goals after retirement and actively explored new areas related to e-sports. For instance, some retired athletes transitioned from being players to becoming coaches and tournament organizers or taking on behind-the-scenes roles in related industries like e-sports clubs and game companies. As Interviewee 05 mentioned,

"After 2021, I felt that I still lacked confidence and wasn't fit to be a professional player, so I joined an e-sports school to train beginners. After gaining some experience, I went on to become a team coach at a legitimate club".

Having a clear career goal made their transition smoother and allowed for a more gradual shift by gaining relevant experience. Similarly, Interviewee 09 shared that he successfully transitioned into a coach and team leader for the game Valorant through connections he made during his gaming career.

"I became a coach and team leader for the game Valorant for a year. This opportunity came through connections I made during my e-sports athlete career".

These strategies not only helped them find a new direction during their transition but also provided more opportunities to continue their development in related industries.

6.4.2. Skills Upgrading and Continuing Education

To adapt to the changes in the gaming industry and enhance their career competitiveness, many retired athletes chose to upgrade their skills and knowledge through training and continuing education. Respondents frequently mentioned that they responded to the evolving needs of the industry by learning game-related skills, communication skills, or other practical abilities. For example, Interviewee 08 shared,

"After 6 months, my family found out and didn't support it at all, pushing me back to school. So, I went to university to study e-sports event operations".

By returning to school or attending training programs, they built a strong foundation for their future careers. Self-study is also an important method for some retired e-sports athletes to improve their skills. For example, a participant who learned video editing by himself and then became a famous game video maker.

"After retirement, I streamed at night and spent my days learning how to use video editing software on my phone" (Interviewee 07).

This approach of learning through self-study or online courses helped them enhance their abilities, successfully transition to other jobs, and continue to progress in fields related to e-sports gaming.

6.4.3. Leveraging Fame and Transition Opportunities

The fame of e-sports professional athletes also plays a significant role in the career transition process. Once players have built a certain level of reputation in

e-sports, they can leverage this fame and their related skills to move into other related fields. Interviewee 03 mentioned,

"If we had won the championship, there would have been more commercial opportunities and greater fame, which could have led to more income".

Fame not only brings more commercial opportunities but also provides them with more visibility and monetization options during the transition process.

Chapter 7. Discussion

7.1 Situation

Same as Ward and Harmon (2019) mentioned, e-sports athletes always have very short career span, and their decisions to retire are not only based on their personal career development plans but are primarily affected by a variety of external pressures. The decision to retire is often the result of a combination of internal and external factors.

On the one hand, e-sports athletes may actively choose to retire for personal reasons. For example, teammates' departure may leave them feeling lonely and lost, or age and injury issues may make them feel that they no longer have the opportunity to continue their e-sports athlete career, and they choose to retire.

On the other hand, many e-sports athletes' retirement is forced or strongly influenced by external factors. The uncertainty associated with a lack of financial security is a significant reason many e-sports players consider early retirement. Meanwhile, a negative team atmosphere and poor training environment can seriously affect players' mental health, and conflicts with teammates or coaches may force them to retire. External factors such as family changes, game copyright issues, club dissolution, platform violations, and the

lack of a mature training system may also be the reason why they have to retire.

Due to these external issues, they may also shake their confidence in seeking future career opportunities.

7.2 Self

Some e-sports players decide to retire by looking at the chances in e-sports and comparing them with the possibility of going back to school or finding other jobs. While the e-sports industry has a lot of potential and attracts many people who want to help it grow, an e-sports career can seriously affect a player's personal life. Due to the intense and unique nature of e-sports careers, many players have to sacrifice their social time, which not only pushes them away from their friends and family but also harms their overall well-being. The feeling of being isolated and having a smaller social circle during their careers might make it hard for them to fit back into social life after retirement.

Also, returning to school and being a student or adjusting to life outside of the e-sports industry can be very challenging for retired players. Many players have spent a lot of time and energy on their e-sports careers and have been on a reversed day-and-night schedule for a long time, so they often find it hard to adapt when they try to go back to school or other jobs after retiring. This adjustment is not just a change in lifestyle but also a big mental shift. For some retired players, losing their identity as a professional e-sports athlete can lead to a profound identity crisis. They may feel lost and overwhelmed, especially when setting new career goals and figuring out what to do next.

This transition can also bring many psychological challenges as Smith et al. (2022) also highlighted, including rethinking their self-worth and feeling anxious about an uncertain future. After retiring, players may feel a sense of loss and

loneliness because they no longer have the competitive platform that once made them famous. To rebuild their self-confidence, players need to handle both external career changes and internal psychological struggles.

7.3 Support

A lack of understanding from family members directly affects the emotions of e-sports players and can slow down their career progress in e-sports to some extent. On the other hand, strong relationships within the industry are very valuable and can provide support and opportunities when they are most needed. Information support is the most important part of career transitions, and this aligns with the findings by Wylleman (2019). In this study, 70% of interviewees agreed that having good relationships with teammates, coaches, and management teams in the e-sports industry can greatly help e-sports players in their career transitions and offer extra support when they face career difficulties.

Networks in e-sports also play an important role in their careers by sharing information about job opportunities and helping with job referrals when needed. It is important for people in the industry to build good connections, not only to stay updated with industry news and information but also to make the most of career opportunities. Tournament staff often have deep knowledge of the gaming industry, and e-sports athletes can learn valuable skills and experience from them.

Understanding the trends and changes in the industry is very important for e-sports players because it can help them plan their careers better. However, because there is not always clear information about the e-sports industry, e-sports players need to focus on developing their ability to learn and explore

independently. They must make up for the lack of information support by self-learning and constantly improving their knowledge and skills. Additionally, the mentoring and management experience of older people outside the e-sports industry can help e-sports players better plan their career development and gain work experience and information from other industries, providing broader support for their career transition.

The lack of social support and educational opportunities for e-sports players is also critical. Especially in China, while traditional sports champions often have various career change options, such as entering politics or pursuing higher education, e-sports athletes do not enjoy the same social benefits when they try to change careers. This unequal treatment not only limits e-sports players' career development opportunities but also increases their insecurity after retirement. The unequal treatment affects not only the diversity of their career choices but also their psychological state and social identity after they retire.

7.4 Strategies

During e-sports athletes' career transitions, analyzing their skills in advance and planning for a future career change is an important part of the process. Also, learning relevant skills, like video editing, can help them find more job opportunities. Going back to school is also an option for many young professionals, and by continuing their studies, they can gain more knowledge and skills for their future careers. Building a good reputation during their careers can also help retired e-sports players get endorsements, partnerships, and other opportunities, which improves their chances of success during their career transitions.

However, while retired e-sports players can move to a new career in different ways, not all of them do so successfully. Therefore, the retired e-sports athletes need to apply more flexible strategies to deal with these challenges. For example, they can find more job opportunities and relevant information by building and maintaining a strong network within e-sports industry. In this case, they can actively pay attention to the industry news, and take the initiatives to get in touch with the career information. Besides, they need to assess their own skills, preferences, and personalities to find jobs that match them to lay a solid foundation for a career change. Also, it is very effective to keep improving their professional skills and knowledge, and to increase their competitiveness in a new field through self-study or training programs. In the end, successful career transition depends not only on having clear career goals and a strong desire to keep learning, but also on being able to handle various challenges both inside and outside the industry and to adjust strategies as needed. Retired players still need to keep adapting to changes in the industry and adjust their career plans accordingly.

7.5 Limitations

Despite this study's complete research methodology plan, there are some limitations. Firstly, the sample size is relatively small. The small sample size typical of qualitative research may limit the generalization of the findings. However, the purpose of this study is to provide an in-depth understanding rather than a broad overview of the career transition experiences of retired e-sports players. Second, relying exclusively on participant self-narrated data may have introduced some subjective bias. Participants may introduce recall bias or social desirability bias in their responses. Therefore, well-designed interviews and semi-structured, open-ended questions will help reduce these biases. Third,

this study was conducted in the specific cultural context of China, so the findings may not be applicable to e-sports professionals in other cultural or geographical settings.

Chapter 8. Conclusion

This research focuses on the career transitions of e-sports athletes, looking at the different challenges they face and how they cope after retirement. Reviewing the research questions brings to several important conclusions.

Firstly, the data from this study shows that the lack of clear information in the e-sports industry greatly affects the career transitions of retired athletes. Because the e-sports industry does not have standard ways of sharing job information, many e-sports athletes find it hard to get equal chances for career changes. This lack of information slows down their career development and limits their career choices. Therefore, the relevant authorities should improve job information management in the e-sports industry to ensure everyone can access all necessary information equally. This will give retired athletes more career options. Also, the e-sports industry needs to standardize salaries and social welfare systems better to protect each player's rights, increase job stability, and reduce the uncertainty they face in their careers.

Secondly, even though society is starting to recognize e-sports athletes, many family members, especially older ones, still do not support their career choices. This family pressure directly affects the athletes' emotions and holds back their career development to some extent. The e-sports industry should work on promoting positive images and changing the public's negative views of e-sports. By doing this, e-sports athletes can get more support and understanding from society and their families. In addition to the need for more societal support for

e-ports, more attention should be given to supporting female e-sports athletes in the industry. Providing more opportunities for female players, increasing their recognition, and creating a fair professional environment are essential aspects of the e-sports field.

This research also suggests that China's educational institutions and e-sports departments should provide more opportunities for e-sports athletes as Holden et al. (2017) and Hong & Hong (2023) agreed. The universities could offer more e-sports-related courses to provide more educational resources for those who love e-sports. This will not only give ordinary e-sports fans more career options but also give e-sports athletes the chance to continue their education and help them smoothly transition after retirement. At the same time, relevant departments in the e-sports industry should offer professional career transition help, including job search guidance, information sharing, career planning, skills training, mental health counselling, and other services, to make sure retired athletes can enter a new career field smoothly and face fewer problems during the transition.

Overall, this research points out some practical suggestions for helping e-sports athletes with career transitions and what should be looked into more deeply. These include making industry information clearer and encouraging the creation of relevant policies, setting up education programs to help retired athletes pursue education opportunities, increasing job stability by standardizing salaries and social welfare systems, offering professional career assistance to help e-sports athletes successfully switch careers, and launching public awareness campaigns to improve the positive views of the public and families. By taking these steps can better support e-sports athletes in their career

transitions and build a strong foundation for the long-term growth of the e-sports industry.

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Appendix A

Interview Question List

- 1. Please tell me about your basic information (age, education, work situation).
- 2. How long have you been engaged in the e-sports athlete career? Length of time? What teams/games did you play for before retiring?
- 3. At what age did you retire? What made you choose to retire?
- 4. How much control did you have over the decision to retire? Was it your choice or an external factor (e.g., injury, team decision) that led you to retire?
- 5. How has retirement affected your personal identity? Do you feel positive or negative?
- 6. How do you feel about your physical and mental health?
- 7. What personal characteristics do you think helped you most during the career transition process?
- 8. What support did you receive from others during the career transition process? How much did this support help you?
- 9. Do you have professional resources inside and outside the gaming industry? How has this network of resources impacted your career development since you retired?
- 10. Have you taken advantage of resources offered by the community or government, such as career counselling or training programs?
- 11. What coping strategies did you use to adjust to your new life or career after you retired?
- 12. Have you received any form of vocational training or continuing education?

 How did this training help you in your career transition?
- 13. What were the main challenges you faced in finding a new career? How did you overcome these challenges?
- 14. What are your plans for future career development? What factors do you think will be most helpful in achieving these plans?

- 15. How do you think a career in e-sports has impacted your career development? Are there skills or experiences that could be transferred to a new career?
- 16. What advice would you give to retiring e-sports athletes? How can you better help them make a smooth transition to a new career?
- 17. Is there anything else you would like to add or ask in this interview?

Appendix B

Interview Transcript (Partial)

Interviewee 01: Female

I'm 25 years old this year. My journey into professional e-sports was somewhat of a coincidence. When I was 19, the mobile game PUBG Mobile had just been released, and I started playing it with my friends. These games became very popular, and the live-streaming platforms began organizing events to host female streamers and to attract more fans. I decided to give it a try, and

surprisingly my popularity got boosted on the live streaming platform.

During my time streaming, I got to know many people. Later, the streaming platform and the event organizers opened up the competition for streamers. My friends and I then devoted ourselves fully to gaming, improving our rankings to secure a spot in the competition. This was the first large-scale offline tournament for this game, and our team ended up taking second place. After the event, the streaming platform invited all the winners to a dinner party, which helped strengthen my relationship with TiMi Studio Group, the game developers, and introduced me to even more people in the industry.

Most of the other players in the tournament were around 16 or 17 years old, with some even having dropped out of school to focus on e-sports. After the tournament, I signed with the streaming platform, and it requires streaming hours and participation in competitions, and the base salary was very low. The main income came from competition bonuses and viewer donations. I signed with the platform because it allowed more flexibility. I couldn't join a club fulltime due to my academic commitments.

I decided to retire from professional e-sports for several reasons. Firstly, the pressure was immense. The daily training sessions were very intense. Besides, I had to practice with my teammates and also fulfill my streaming duties. As my studies became more intense in later years, I became mentally and physically

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exhausted. I felt extremely tired, my eyes were strained. My shoulders and back also started to hurt. I realized that a full-time career in e-sports was not for me, as it wasn't a particularly stable job. Additionally, in my third year of university, the school required us to do an internship. At the same time, the game itself was undergoing structural changes, leading to many professional players quitting or switching to other games. Seeing many of my friends leave made me feel nostalgic and reluctant to adjust to new teammates, so I decided to retire.

My family has never supported my involvement in e-sports. I initially hid my professional gaming career from my parents because they believed that streaming wasn't a proper job and that playing games would lead to addiction and ruin my future. However, I was very determined, and there wasn't much they could do. I didn't volunteer any information about my work. My friends were very supportive, especially during my streaming and e-sports career. My friends and classmates who were game players admired and envied my ability to make money through e-sports.

My subsequent work experiences are closely related to my time in e-sports. I've always enjoyed making friends, so I had good relationships with everyone. After graduating from university, I maintained good relationships with Tencent and TiMi Studio Group, assisting them with game promotions. I leveraged this experience when I interviewed for a position with a Tsinghua professor. I joined the Al lab. I'm currently working at a gaming company, a role that I secured thanks to my extensive gaming background.

I felt a bit lost and regretful after retiring—because even now, I still play games and see how well the industry is developing. But I don't have any major emotional ups and downs. I'm more interested in exploring different career paths.

Finally, I'd like to say that many parents today don't support the e-sports industry because they don't understand it. E-sports is still a relatively new field. But in reality, only those who have experienced this industry firsthand can truly

understand it. If you genuinely love e-sports, if it's your dream, then don't let external voices distract you. Stick to your goals.