

# 2019-2020 GUIDE TO ESPORTS

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*The Barclays Center, Brooklyn, New York*

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## Introduction

By Dr. Jay Prescott,  
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This publication is intended to provide thought-leading research and information on the rapidly growing world of competitive esports. Much like the sport's growth, our vision is to add new knowledge and data on best practices, trends and innovations in competitive esports at the high school, university and professional levels. This inaugural edition includes contributions from a wide range of individuals who are considered leading experts and are associated with competitive esports programs across the country. We hope the information is helpful in advancing the development of this emerging sport, and we look forward to seeing this publication evolve into a valuable resource for esports professionals committed to increasing the quality of esports competition at all levels.

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# Chapter 1: Esports Overview

By Joshua Pann, College Esports Specialist, HP Inc.



*The 2018 Overwatch League Championship sold out the Barclays Center in Brooklyn, New York.*

The popularity of esports has surged in recent years. Global viewership consistently grows at double-digit rates, topping 380 million viewers in 2018, according to the research firm NewZoo. This same firm expects the North American audience alone to grow from 52 million viewers in 2018 to 64 million in 2021. In fact, more men aged 21-35 prefer to watch esports than either baseball or hockey.

Professional leagues in different titles are also appearing. Just recently, the NBA announced a \$1 billion partnership with publisher Take 2 Interactive to create the NBA2K esports league, so that each pro basketball team will have its own corresponding esports team. Professional esports teams are franchises with owners, just like other sports teams. Overwatch, a popular first-person shooter created by Blizzard, is rumored to cost prospective owners up to \$40 million to create a franchise. Tickets to attend the 2018 Overwatch League Championship, held in Barclays Center in Brooklyn, New York, sold out within two weeks. The International, the end-of-year competition for the game DOTA 2, had a prize pool of \$25.5 million.

This trend of professionalization has begun to trickle down to universities, high schools and middle schools. Universities are creating innovative academic programs to meet the demands of current and future esports-related careers. States including California, Arizona, New Mexico and Kentucky have launched high school esports leagues.

## Esports titles

One challenge for university administrators will be selecting game titles, and deciding which games their esports teams will play. Some games, such as Fortnite, can become immensely popular seemingly overnight. **University leaders will have to pay attention to trends to determine which titles are likely to endure, while remaining flexible enough to adopt up-and-coming titles, as appropriate.**

For example, Overwatch and League of Legends have professional franchises, high-level sponsorships and broadcasting deals. The producers of these games must ensure that these titles stay relevant for a long time, and must continually increase the size of their audiences to pay off the

sizable investments spent producing them. Thus, a university could safely create a team for either of these titles, knowing that they will still be played for several more years. I recommend selecting core titles like these that have staying power, as well as experimental or up-and-coming titles that may have significant student interest, to build a sustainable program.

**Another important factor in a university's decision about titles will be what level of game violence is acceptable.** Some titles do involve shooting human avatars. Others may have blood and gore, but the violence involves fantasy characters rather than realistic human characters. Most esports titles have an Everyone or Teen rating from the Entertainment Software Rating Board (ESRB). Titles rated Everyone may contain minimal cartoon, fantasy or mild violence, while titles rated Teen may contain violence, suggestive themes, crude humor, minimal blood and/or infrequent use of strong language. While one could argue that the violence in esports is far less damaging or serious than the violence in sports, including football or hockey, or the violence depicted in popular movies and television shows, it is inescapable that universities have a diverse set of stakeholder viewpoints to consider. I encourage you to speak with your administration, decide what is acceptable in this area, and create a clear rationale for your decision to communicate to any stakeholders who may raise concerns about game violence.

Esports titles generally fall under five categories: first-person shooter (FPS), multiplayer online battle arena (MOBA), real-time strategy (RTS), sports and fighting games. There is also a miscellaneous category for games that don't fit into these categories, such as World of Warcraft, Hearthstone, Tetris and others. There are too many games played in esports to cover them all within this chapter. For example, Collegiate Starleague, one collegiate esports organization, runs leagues in 13 different game titles. Therefore, I will just give a brief overview of two of the most popular PC esports titles: Overwatch and League of Legends. I encourage you to be responsive to your athletes' desires for competitive titles within the confines of your budget. Some of the following information is from the ESRB.

## Overwatch

Overwatch is a competitive online six vs. six, team-based FPS that was released in May 2016. Players choose a character with unique characteristics, style (gameplay and cosmetic), futuristic weapons, abilities and roles. Then, players work together to accomplish various objectives across many different maps. Players can switch characters at specific points in the match.



There are four main map modes: assault, control, hybrid and escort. Assault and control are variations on the classic "king of the hill" idea. Teams fight for control of specific points on the map. Hybrid and escort maps are variations on escorting a payload along a predetermined route while the other team tries to stop them. There is significant variation in map and character design, and there is a complex set of interactions between the two. Before the match, successful teams must design strategies and team compositions balancing the strengths and weaknesses of their individual characters and resulting team to achieve a specific objective on a given map. Then, athletes will have to execute their strategy through communication, quick reactions and adaptability.

Matches can take anywhere from 30 minutes to two hours depending on the league's rules. Lastly, Overwatch is rated Teen by the ESRB for frenetic combat with realistic gunfire, cries of pain, explosions, and splashes of blood that briefly appear when a weapon strike is landed.

## League of Legends

League of Legends is a five vs. five team MOBA, which was released in October 2009. It combines strategy and role-playing elements. Players control fantasy and human characters who use swords, arrows, guns and magic attacks to defeat other players, destroy nonplayer combatants and

take objectives. Characters gain power, abilities and items over time as they accomplish objectives. Players can choose how they level their characters and what items they purchase. Player-controlled characters are set for the duration of the match.



Battle violence can include slashing sounds, colorful projectiles and red blood splashes. The match takes place on only one map and is played from an overhead 3/4 perspective. Each of the 143 characters have their own strengths and weaknesses, but generally fall into five different roles. How the heroes, their skills, items, game rules, etc. interact with one another creates significant complexity and a lot for players to memorize.

## NCAA involvement

Collegiate esports is currently fragmented. There is no central governing body like the NCAA, though some organizations are trying to fill this void. Future NCAA involvement seems unlikely because of the association's commitment to "amateurism," and leagues generally offer scholarships, cash and equipment prizes for placing in the top three. Universities are also exploring paying student-athletes and creating other revenue streams, which are not in accordance with NCAA policies.

Furthermore, esports games are the intellectual property of the respective developers, whose interests may not align with the NCAA's interests. But the biggest obstacle to NCAA involvement may just be timing; it could be too late by the time they decide to invest. A number of leagues and organizations have sprung up to fill this void. The National Association of Collegiate Esports (NACE), formed in July 2016, represents more than 80 member schools and more than 1,500 student-athletes. The association promotes institutionalizing esports by providing member schools with training, advice, mentorship and community (See Chapter 6).

**However, this decentralization of esports is also one of its great strengths.** It is relatively easy for universities to compete if they have enough players for a team, the right equipment and a faculty point of contact. You may not be aware of them, but your university might have esports teams competing online. In fact, many university esports programs start as student organizations, with students playing on their own devices and registering in different online leagues. As more students express interest, a university may then officially recognize those organizations. This recognition could take many forms. Esports can be organized under student affairs as a club, institutionalized as an official team with university support (coaches, equipment, etc.), or housed under the university's athletic department as co-equal to traditional sports. This flexibility allows the university to decide what is best for its priorities and budget while allowing the program to grow over time.

## Collegiate leagues

There are three main collegiate esports leagues right now: TESPAs, Collegiate Starleague (CSL) and Riot's College League of Legends (uLoL). Each organization provides a base level of services. Each manages a simple registration process, match scheduling, leaderboards, multimedia content and news updates, scholarships for top-placing teams, educational resources, and a community to connect with like-minded individuals.

For example, TESPAs provides chapters with welcome kits that include giveaways and a set of best practices for running a club. TESPAs currently runs leagues year-round in five different titles: Rocket League, Overwatch, Hearthstone, Heroes of the Storm and StarCraft 2. Each organization hosts an online portal for colleges and universities to register. Different titles have different levels

of scholarships available as prizes. CSL operates leagues across 13 different titles.

So far, uLoL is probably the most developed league. It looks the most like traditional NCAA leagues: Teams are divided into a set of regional conferences with the top teams of each advancing to the playoffs. Matches are sometimes streamed on Twitch, which is a livestreaming platform for video games. Some leagues and titles, like uLoL, broadcast their finals live from inside an arena. These leagues are generally free or very low cost to join. Also, there are no strict eligibility rules such as those of the NCAA. Generally, anyone can compete if they can verify their student status with a university email address, or can be vouched for by a faculty member.

In addition to these leagues, some institutions, such as Boise State University, organize their own matches with schools in their traditional sports conferences. For example, the school's current calendar shows League of Legends matches in the Mountain West Conference in addition to TESPA Overwatch League matches.

## Equipment

It should come as no surprise that gaming technology changes often. New graphics cards are released about every two years, new processors are released yearly and 240Hz displays are now becoming affordable. There have been advances in peripherals and chairs as well. For instance, I might have recommended Nvidia's GTX 1070 graphics card had this been written six months ago. Fast forward to today and Nvidia no longer produces the GTX 1070. However, this isn't necessarily a scary prospect. Different original equipment manufacturers offer various levels of "upgradability" built into their systems, which could mean you only need to upgrade one or two components of your setup three years down the line. Also, OEMs are beginning to offer innovative models to continuously supply up-to-date equipment to their customers. I encourage you to consult with your equipment partners.



Esports station

## Esports station

The fundamental building block of any esports facility is the station. The station has everything an athlete needs to play. It consists of the PC, display, keyboard, mouse, mouse pad, headset with microphone, desk, chair and appropriate cables. The picture above is an example of this concept. The number of stations and the quality of components can be scaled up or down to match your needs and budget. For example, a practice facility may only need 20 high-end stations, whereas a public gaming center may use a combination of high-end stations for the team and midtier stations for the general population. Some portions of the station, such as the specifications of competition PCs, should be standardized. Standardization allows your players to be equally provided for and allows you to host other schools for live matches and diagnose potential maintenance issues. Other parts, including the keyboard and mice, are much more about the athlete's subjective feel and comfort. They can be as personal and inspire as much loyalty as a basketball player's favorite brand of shoe.

Generally, desktops provide better value than laptops because they are cheaper to purchase, maintain and upgrade. Also, it is more comfortable to look straight ahead at an external display and use external peripherals than look down at a laptop screen and use a cramped keyboard. However, some schools are experimenting with using laptops as mobile desktop replacements. These are moved via a standard laptop cart and then connected to external displays and peripherals. I would imagine that heat buildup during long sessions could degrade performance in that setup. But it could be advantageous if space is limited or no permanent space currently exists.

## Displays

Displays have a dizzying number of characteristics. A quick look at any display advertisement will show specifications such as panel type, pixel pitch, contrast ratio, brightness, response time, size, G-Sync, FreeSync, Ultra-light motion blur, and the list goes on. For competitive purposes, speed and clarity are vital. It's crucial to maximize the number of frames while minimizing image distortions. One group of players will have an advantage over another if images appear more quickly for them. I recommend purchasing gaming displays over regular consumer displays because gaming displays emphasize speed. Consumer displays are generally not able to change images quickly enough for competitive purposes.

## Display specs

Professional gamers generally play on 24-inch or 25-inch displays. This size provides the right balance: Individual screen elements are large enough and are not lost in the periphery. The displays usually have a resolution of 1920x1080 or 2560x1440. Larger displays have higher resolutions, but higher resolutions will reduce frame rates because more graphics power is needed to draw more pixels.

Refresh rates indicate how many frames per second your monitor can display. The 240Hz displays are becoming the industry standard. They tend to be more expensive than similar-sized monitors at lower refresh rates; however, you must make sure that your graphics card can produce enough frames per second to match your display's refresh rate. For instance, if your display is refreshing 240 times per second, but your graphics card can only draw 100 frames per second, the same frame is going to be drawn multiple times.

Gaming displays either have AMD's FreeSync or Nvidia's G-Sync technology. FreeSync is open source, available on all AMD graphics cards, and beginning to be supported on Nvidia cards; G-Sync is only supported by Nvidia. The two technologies help sync together displays and graphics cards to reduce visual distortions. I recommend ensuring that your monitor's sync technology matches the graphics card you have.

## PC

The PC is the main part of the station. The main decision-making criteria here is getting the best performance for current games, while considering that future games will likely be more demanding.

Equally as important to performance, the PC must also be visually appealing to students. Coaches will need equipment that is easy to market to prospective athletes—just like football coaches need marketable training facilities and equipment to recruit prospects. Gaming desktops bundle powerful components inside a design that matches the aesthetic tastes of college students. They generally have clear side panels (tempered glass or plastic) to show the interior components of the PC. There are also a variety of options for internal lighting that can often be controlled through software to liven up the look of the desktop.



**Gaming Desktop**



**Conventional Workstation**

Furthermore, PCs designed for gaming are generally easier to upgrade than conventional workstation PCs. This could allow you to extend the desktop's life span by upgrading the graphics processing unit as needed, resulting in cost savings. Gaming towers come in a variety of sizes and weights. Most are rectangular, though there are some experimental designs out there. Larger facilities will be able to hold larger towers. Below are some average case sizes in height, width, depth and weight:

- Mini tower: 12 inches by 5 inches by 8 inches; 10 pounds
- Mid tower: 18 inches by 7.5 inches by 14 inches; 25 pounds
- Full tower: 24 inches by 11 inches by 23 inches; 40 pounds

The good news is that today's esports titles are not particularly demanding when it comes to computing performance. Esports title success relies on having a large fan base, so developers design games for midrange systems. **The main goal for competitive play is to maximize performance within the budget while leaving some headroom for the requirements of potential future titles.** As explained earlier in the display section, more frames per second means more information on the screen and a generally smoother experience. Ideally, the PC should generate as many frames per second as the display's refresh rate or more. The best value for components is found in the mid-tier level. However, performance value must be balanced with marketability to students and potential future needs.

## Graphics cards, CPU and memory

Graphics cards are the primary drivers of performance. **Any of the mid-level and above latest-generation** graphics cards from Nvidia and AMD should perform well enough for any esports title. High-end cards provide incredible performance, but at quickly decreasing value propositions. The most powerful cards may be a waste of money in some cases, as their capabilities can exceed what games require.

The next largest impact on gaming performance is the CPU. Both Intel and AMD offer great value at the mid-tier level. Lower-end CPUs effectively "bottle cap" higher-end graphics cards, whereas high-end processors may not have any impact on gaming performance because the graphics processing unit is handling the load. However, higher-end processors are better for general computer use and are a must for PCs that handle streaming and "shoutcasting."

Both components can be cooled with liquid or air coolers. There are advantages and disadvantages to both. Air cooling is cheaper and easier to repair or replace. It will work for stock components running at stock speeds. However, it can get loud depending on usage. Liquid cooling is quieter and more efficient, but it is much more expensive and harder to maintain. The lower temperatures allow the user to wring out more performance from their system via "overclocking." And liquid cooling looks very cool.

Lastly, RAM and storage have minimal impacts on match performance, but they do improve the general performance of the PC. The bare minimum amount of RAM for a current gaming system is 8GB. It will work adequately if there aren't other processes running in the background. Having 16GB of RAM would allow your athletes to play comfortably while having multiple web browser tabs and other applications running.

Solid State Drives (SSD) are also becoming the industry standard for hard drives. They don't necessarily impact frame rates. However, PCs will boot and load game assets faster when loaded onto an SSD vs. a traditional hard drive (HDD). Most needs can be met with a moderately sized SSD for games and secondary HDD for multimedia data. The requisite drive size will depend on how many games and other programs will be installed on it. Windows 10 with Microsoft Office can require upwards of 30GB. Overwatch is 18GB, League of Legends is 12GB, StarCraft II is 27GB, Hearthstone is 8.5GB and Rocket League is 8GB, for example. The minimum 128GB SSD size can quickly become filled to capacity with a few titles, drivers and related programs.

## Peripherals

Keyboards, mice, mouse pads and headsets help athletes interact with the game. The impact of these peripherals on gameplay is largely subjective. Collegiate esports athletes may already have strong brand preferences. Many will bring their own peripherals. However, it's still a good idea to purchase them. Students may forget, lose or break their own, wasting valuable practice time waiting for a new set to come in. Also, some students may not be able to afford their own or haven't had much experience with gaming-quality peripherals.

**Gaming keyboards should always have mechanical switches.** On traditional keyboards (those included with most PCs), each key passes through a plastic layer with electrical contacts, and then through a hole to a second layer that connects a circuit to register the keystroke. This can cause some keystrokes not to register when multiple keys are pressed at once or keys are pressed too

quickly. Missing a key could be the difference between success or failure in a fast-paced esports competition. A regular consumer keyboard also has a shorter life span, which is estimated at 10 million clicks on average. Quality mechanical keyboards are ideal for esports because they eliminate this problem by using a mechanical switch to register keystrokes. Pressing the key trips a metal contact, while a spring resets the key position. There are many kinds of mechanical switches. Some require a lot of force, some have a loud click, and some have no click. Each athlete will have their own preference.

**A six-button optical wired mouse with adjustable dots-per-inch (DPI) settings will work for most use cases.** The six buttons are the right and left click, scroll wheel, scroll wheel click, and two thumb buttons. Adjusting the mouse's DPI determines the mouse sensitivity, or how quickly the cursor will move across the screen. An athlete may have to experiment with a few different mice to find one that is most comfortable for their hand. Mice will rest on hard or soft mouse pads. Mouse pads range in size from 12 inches by 12 inches to 36 inches by 16 inches. When in doubt, get a medium-sized soft mouse pad, as it is easier to transport. There aren't any performance differences here. Headsets should be comfortable to wear and have a microphone attached. One extra feature of USB headsets could include manual controls for the headset and microphone volume.

## Networking

**Gaming is not particularly demanding on a network.** Bandwidth use is minimal and is more comparable to web browsing than video streaming. However, a university's firewall may need to be modified to allow the games through. I do recommend that each PC have a wired network connection instead of Wi-Fi. Even the best Wi-Fi signals can be unreliable. Sometimes, they suddenly slow down or drop out due to interference. This could cost your team the match if it happens at a critical point. A gigabit network switch could make connecting all the machines easier.

## Desks and chairs

Any desk that is at least 45 inches wide should accommodate your athletes comfortably. This allows the athlete to have adequate room for their feet, even with the desktop placed underneath. Wider desks will be necessary if the desktop is placed on top of the desk. Look for a chair with adjustable height, lean and pitch and adequate lumbar support. There are gaming chairs on

the market with a distinctive look and feel. These racer-style chairs may have greater aesthetic appeal to your students, especially if they match your school's colors. Whether they are more comfortable than standard ergonomic chairs for long periods is up for debate. Some people swear by them; others feel they are overpriced.



**Competitive gaming or racer-style chair**



**Traditional office chair**

Either way, I recommend having students test out a few chair designs before making a bulk purchase. I recommend buying a quality chair over a cheap one; a student's health depends on it. A poor-quality chair can cause pain, back issues and decreased performance. A good chair can help students maintain a healthy posture through long practice sessions. A good chair can also last many years, with some brands having a 12-year warranty.

## Building an esports facility

**There are three main types of esports facilities: private practice facilities, public gaming centers and arenas for live matches.** Each satisfies a different purpose. While I encourage building a large public space to create an inclusive community for your students, it can be expensive and procedurally difficult. A good strategy could be to start small with a practice facility, build the team's popularity on campus, and demonstrate its success to administrators. Then, if there is enough student interest and administrator buy-in, build a coalition of university funds, donors and businesses to support the cost of a 60-plus seat gaming center for your student body. Large, splashy facilities with quality equipment will be more marketable.

Some universities are taking this a step further by building arenas for live matches. These have raised stages, trusses, custom lighting and sound, projectors, and more.

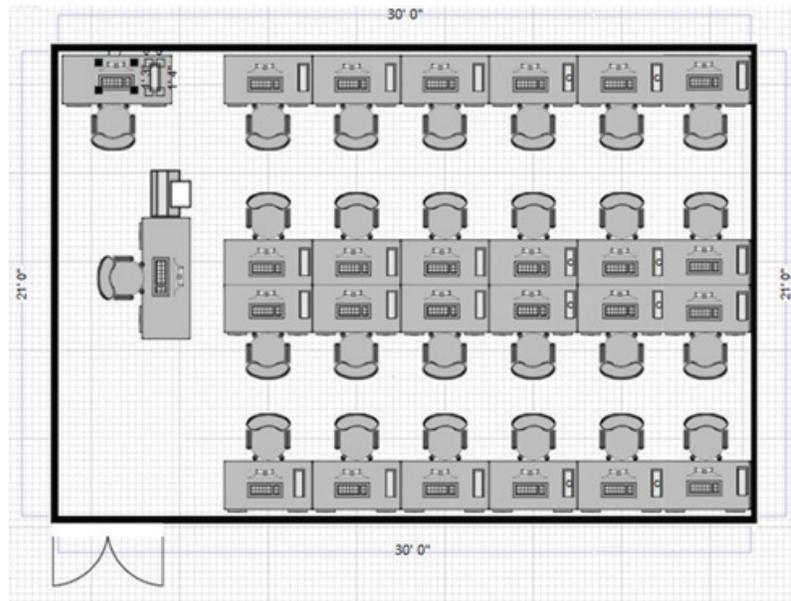
Arenas can be scaled up or down to match to your budget. Prices are for illustrative purposes only and do not include construction costs or personnel costs, or reflect the prices of any particular manufacturer.

## Practice facility

As an example, a mid- to large-sized university establishing a 24-person esports program could have the following teams:

- Overwatch (varsity): six players
- Overwatch (junior varsity): six players
- League of Legends: five players
- Hearthstone: three players

There is space to create a Rocket League team (three players) and/or bring on a couple of development players next semester. Repurposing an underused 21- by 30-foot space will save on construction costs, and will accommodate four rows of six stations with 48-inch desks and still offer space for a coaches' area on the left (see image below).



Student groups could create wall decals to enhance the space's school spirit. If half of the students already have their own preferred peripherals, just 12 sets would have to be purchased, which saves money.

Note that this does not include game costs because all competitive players will already own the game. Today's PC games operate as a license tied to a user's account after a one-time fee. Games can be freely downloaded from a publisher's portal and played with valid user credentials. However, you may wish to create university-owned official team accounts by purchasing separate licenses. Athletes could then separate their personal play from official team play. Below are sample budgets for entry, mid-level and top-end setups based on this information.

## Example budgets

This table illustrates three possible budget scenarios (see below). There are a couple of key differences. At roughly \$44,000, the entry-level setup has lower-performing desktops than the mid-level setup. The entry specs are playable, but athletes could be at a meaningful disadvantage if they

are playing against better-equipped teams. Your team will also be in a tough spot if a new, more demanding title becomes popular next year. Also, there is no budget for coaching workstations. Coaches will have to use their own laptops.

In the mid-level setup at \$61,000, athletes will have high-performing PCs that are adequately future-proofed. This level provides for a three-year on-site service agreement in case something needs repairs. (Unlike commercial workstations, gaming PCs only come with a limited one-year warranty. Longer commercial-style service agreements are extra). Midlevel PCs will perform well for today’s esports titles and could last three to four years before needing an equipment refresh.

While the top-end level setup at \$87,500 offers the highest level of specs and 240Hz displays, providing impressive performance, the higher cost would only be attainable through private partnerships or generous donors.

Entry				Mid-Tier				Top-End			
Description	Price	Quantity	Total	Description	Price	Quantity	Total	Description	Price	Quantity	Total
<b>HARDWARE - GAMING</b>				<b>HARDWARE - GAMING</b>				<b>HARDWARE - GAMING</b>			
Entry Desktop	\$ 1,050	24	\$ 25,200	Mid-Level Desktop	\$ 1,400	24	\$ 33,600	Top-End Desktop	\$ 1,750	24	\$ 42,000
25" Display 144hz	\$ 250	24	\$ 6,000	25" Display 144hz	\$ 250	24	\$ 6,000	25" Display 240hz	\$ 500	24	\$ 12,000
Peripheral Bundle	\$ 175	12	\$ 2,100	Peripheral Bundle	\$ 175	12	\$ 2,100	Peripheral Bundle	\$ 250	12	\$ 3,000
			<b>Subtotal: \$ 33,300</b>	3-year Service Pack	\$ 200	12	\$ 2,400	3-year Service Pack	\$ 200	12	\$ 2,400
<b>NETWORKING</b>				<b>NETWORKING</b>				<b>NETWORKING</b>			
Cat 5 cables	\$ 5	24	\$ 120	Cat 5 cables	\$ 5	24	\$ 120	Cat 5 cables	\$ 5	24	\$ 120
Unmanaged Gigabit Network Switch	\$ 50	1	\$ 50	Managed Gigabit Network Switch	\$ 100	1	\$ 100	Managed Gigabit Network Switch	\$ 100	1	\$ 100
			<b>Subtotal: \$ 170</b>				<b>Subtotal: \$ 220</b>				<b>Subtotal: \$ 220</b>
<b>OFFICE EQUIPMENT</b>				<b>OFFICE EQUIPMENT</b>				<b>OFFICE EQUIPMENT</b>			
Desk	\$ 200	26	\$ 5,200	Desk	\$ 200	26	\$ 5,200	Desk	\$ 200	26	\$ 5,200
Entry Task Chair	\$ 200	26	\$ 5,200	Mid-Level Task Chair	\$ 350	26	\$ 9,100	Top-End Task Chair	\$ 750	26	\$ 19,500
			<b>Subtotal: \$ 10,400</b>				<b>Subtotal: \$ 14,300</b>				<b>Subtotal: \$ 24,700</b>
			<b>Grand Total \$ 43,870</b>				<b>Grand Total \$ 61,120</b>				<b>Grand Total \$ 87,520</b>

## Funding

There are a variety of ways that universities have created alternate funding streams to offset costs: advertising revenue through Twitch partnerships, charging a nominal hourly use fee, live events, and apparel and equipment sales. Universities are also creating more value for the facilities by using esports spaces for academic purposes during non-practice hours. The hardware is powerful enough to be used in graphic design, game design, video processing and esports-related courses. Creating additional uses for esports facilities will make it easier to secure buy-in from administrators and sustainable funding. An esports facility could bring additional revenue to the university by increasing student recruitment and retention. Corporate sponsorships are difficult—but not impossible—to obtain. It may be more realistic and sustainable to plan without them, but it doesn't hurt to try.



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**Joshua Pann** — Joshua is the College Esports Specialist for HP Inc. Since joining HP Inc., Joshua has led the charge into collegiate and K-12 esports. An avid lifelong gamer and hobbyist PC builder since the early days of Quake and Pentiums, he holds undergraduate degrees in economics and international relations from University of California, Davis and a Master of Arts in teaching from Relay Graduate School of Education in New York. Joshua combines his experience as an educator with his knowledge of esports to help universities support new vibrant student communities on campus.

# Chapter 2: Understanding Esports Athletes, Fans and Gaming Culture

By Professor Shaun Byrne, Esports Director,  
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At first glance, esports, or competitive video gaming for the uninitiated, can seem confusing. The desire to play video games as a hobby was once hard to comprehend for some, but now it's more widely accepted and understood. In 2018, there were over 2.3 billion gamers in the world, which is just under 30% of the global population, according to Newzoo. In the U.S., the percentage is much higher, with nearly 70% of the population having played video games or playing regularly, according to a study by Electronic Entertainment Design and Research.

Over 120 postsecondary institutions and more than 1,500 secondary schools are officially supporting esports with varsity programs. Many more schools have unofficial student-driven clubs. Some colleges have even begun offering esports-focused academic programs. This is just the beginning. Most collegiate esports insiders will agree that it's only a matter of time before esports is adopted and officially supported on the same level as traditional athletics. Getting started now will still put your school ahead of the curve. Let's explore six key things to understand about esports athletes, fans and gaming culture.

## 1. Is esports considered a sport? Are participants considered athletes?

Debate has raged for years and it will likely be many more years before we see any sort of consensus on these questions. The Oxford Dictionary defines sport as “an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment.” By that definition, most people are quick to point out that esports doesn't involve physical exertion, and therefore, is not a sport.

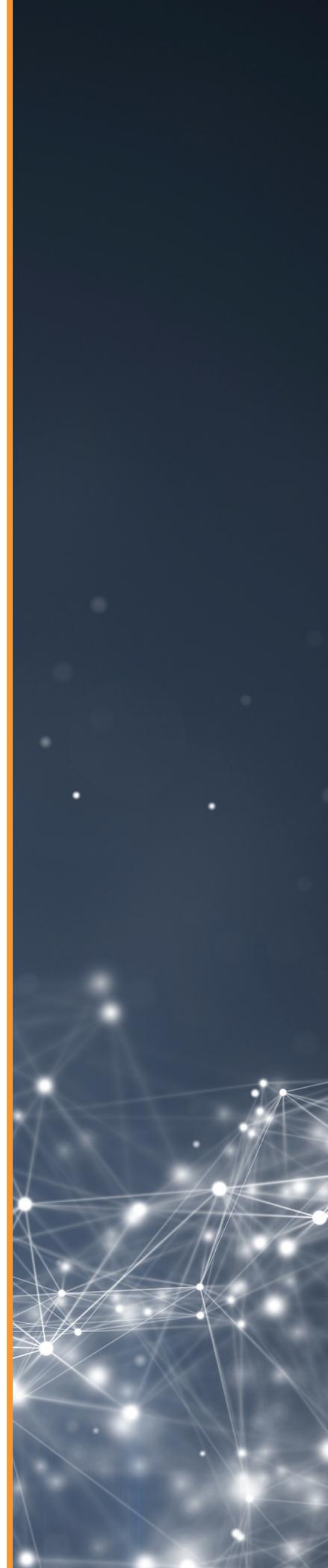
There are many counterarguments to this however. What about NASCAR and Formula One racing? Those are considered sports and involve just about the same amount of physical exertion as video gaming. Recently, a gamer who learned to race through simulator esports racing took on a professional F1 driver in a real race car and won! ESPN promotes poker, cup stacking and speed pool as well as many other activities that don't quite fit the definition of a sport either. So why not esports? The reality is that it doesn't matter. Regardless of whether it becomes widely accepted as a sport or not will not slow down its tremendous growth. The only important thing to understand is the opportunities surrounding esports, rather than the semantics of the term “sport.”

## 2. Speaking of semantics, is it called esports, eSports or e-gaming?

While it may not make a difference whether esports is considered a sport, the lingo you use to talk about esports does matter. For many years, people fought over the spelling, but in 2017, the Associated Press settled the debate. The decision was made that “esports” is the proper spelling. Using anything else is a quick way to show that you are not well informed. To millennials or post-millennials, someone using the word “e-games” clearly signifies that the person is out of touch. Similarly, the term “esports athlete(s)” can be used in certain situations, however, the terms “gamers” and “competitors” are much more widely accepted.

Understanding this basic lingo can help you avoid some early missteps that could discredit what you're trying to do in the eyes of your target audience. There's nothing more cringeworthy for a postmillennial gamer than to see a baby boomer starting an e-games team on campus.

Another important distinction to make is that not all video games can be esports, and therefore not all gamers are interested in esports. For the most part, esports is purpose-built to be played competitively. Taking the time to learn which games are esports and which ones are not will help you connect further with this demographic. While exploring this topic fully would require a chapter of its own, this example may help explain this idea: Working out at a gym does not mean you're competing in a sport, and playing Super Mario Bros. does not mean you're competing in esports.



### **3. Are there any other similarities with traditional sports that make this easier to understand?**

Definitely, and probably many more than you think. First of all, many people who are discovering esports for the first time have a hard time grasping the idea that in esports, you will have separate teams for different games. But this is similar to other athletics programs, where you have separate teams for different sports, such as a basketball team or a volleyball team.

For example, in esports you may have a League of Legends team, an Overwatch team, and a Rocket League team. Players of each game may not necessarily be interested in or good at another game. In traditional athletics, especially at the collegiate level, athletes tend to specialize in one sport. The same is mostly true for esports competitors.

Therefore, an esports program is typically structured similarly to an athletics program. Often, there is a director overseeing a staff of coaches who each work with individual teams, which are composed of multiple players who compete in a single game.

The similarities don't stop there. Training schedules in esports can be almost identical to traditional sports, with designated practice times, film review sessions, strategy meetings to review playbooks, game times, travel to tournaments, and even team workouts.

Yes, gamers hit the gym just like their traditional athlete counterparts. As the adage goes, "healthy body, healthy mind." Competitors in esports may not display the same athletic abilities while competing as athletes in traditional sports, but they require a high level of mental fortitude. High-level gamers are tasked with executing hundreds of actions per minute, with near-perfect accuracy and precision, for long periods of time, which requires top-notch mental stamina. To accomplish this with consistency, a healthy lifestyle is essential.

### **4. That's not what I imagine when I think of gamers. What are they like?**

For decades, the media has presented video game enthusiasts as unhealthy, antisocial and lacking ambition. Even today, as the number of gamers in North America outnumbers nongamers, these stereotypes continue to be perpetuated through film and television.

In reality, the modern gamer doesn't quite fit this narrow definition. Gamers come from all walks of life. In many ways, the inherent accessibility of video games means that more people have the opportunity to participate in gaming than in traditional athletics. We see band geeks, jocks, rockers and straight-A high achievers competing shoulder to shoulder. While the number of women involved is still relatively low, we are beginning to see gender barriers in esports disappear with several women filling roles on collegiate varsity and professional-level teams. The accessibility and welcoming community of esports has resulted in a sizeable number of participants from the LGBTQ community as well.

Many esports competitors take their craft just as seriously, if not more seriously, than traditional athletes. Stop in to the training facilities on a varsity campus and you'll see gamers demonstrating extreme focus and dedication to their game, along with an intense emotional connection to their results. In the world of esports, it's not all fun and games. Competitors take esports seriously, and if you want it to succeed on your campus, so should you.

### **5. Why should I take this so seriously? Is it really that big?**

The short answer is "yes." In North America, the first varsity esports team appeared in 2014. Five years later, there are approximately 120 postsecondary institutions offering varsity esports, which easily represent over 1,500 student-athletes. New schools are launching programs almost every week. This is just the tip of the iceberg as hundreds more schools have student-driven clubs filling the void in cases where esports has not yet been incorporated officially by college staff.

On the professional level, investors are purchasing franchises for millions of dollars, players are earning six-figure salaries, and hundreds of millions of dollars in prizes are up for grabs. According to Statista, revenues in the esports industry are set to surpass \$1 billion in 2019. The interest in esports has created viewership numbers that rival some of the biggest traditional sporting

events in the world. According to Riot Games, the world championships for League of Legends in 2018 reached a peak of 99.6 million viewers, up from 57.6 million in 2017. Compare this to the 2018 Super Bowl, which reached only slightly more at 103.4 million viewers, according to Nielsen data, but saw viewership drop by 7% compared to 2017.

#### **6. All right, the interest is there. How can schools benefit?**

As mentioned previously, esports is very accessible. In addition, it appeals to a segment of the student population that isn't often reached through traditional student-life programming such as new student orientation week activities, concerts or intramural sports.

Together, these factors mean that a well-implemented esports strategy will improve student life on campus for a large segment of the student population. The idea that gamers are antisocial is a myth. The reality is that very few activities catering to this demographic have been explored. In my experience, when you create a space and provide activities for gamers, you create opportunities for positive social interaction that can often result in strong friendships. This in turn has a positive effect on mental health.

If this benefit is not enough, there is another area where esports can create big opportunities for postsecondary institutions: recruiting. According to the National Center for Education Statistics, there are over 4,500 postsecondary institutions in the United States, but only about 120 offer varsity esports. Launching a program can certainly give your college an edge in the recruiting department. Even students who are not skilled enough to compete on the varsity level have been known to gravitate toward schools with a strong esports culture.

Luckily, another major benefit is that the startup cost is fairly low in comparison to traditional athletics. What is required to get started on a basic level? Six gaming computers and a small amount of space on campus. Most collegiate competition takes place online, so there is no need for travel.

### **Embrace the future of esports**

The idea of bringing esports to your campus may seem overwhelming. Many of you may finish reading and immediately move on to something else. However, the most important thing to understand is that esports is coming whether you embrace it or not. Students took the initiative and started hundreds of clubs and competitive teams at schools all around North America long before the first varsity program was established. That being said, the potential to improve student life on campus through college support can lead to immensely positive benefits for students and schools alike. While the task may seem daunting, now is the time to get involved.



**Shaun Byrne** — Shaun is the Esports Director for Saints Gaming (SaintsGaming.ca), the varsity esports program at St. Clair College in Windsor, Ontario, Canada. St. Clair College was the first postsecondary institution in Canada to fully embrace varsity esports. In January 2019, he also began serving as program coordinator and faculty lead for the Esports Administration and Entrepreneurship academic program, one of only a handful of programs in the world training students for careers in the esports industry. Prior to his positions at the college, Shaun founded and served as CEO for Esport Gaming Events, Inc. (EGE.gg) from 2012 until 2017. In that five-year span, EGE hosted over 100 successful Esports events throughout Ontario, Quebec and

Michigan, including Good Game Con, which was the largest with over 3,000 live participants in 2016, and Saints Gaming Live in 2017, which served as a proof of concept for the esports programs at St. Clair College. While Shaun doesn't have as much time to play games these days, when he gets the opportunity, his favorites are Super Smash Bros. and Fortnite.

# Chapter 3: Recruitment, Retention and Scholarships for Esports Athletes

By Dana Hustedt, Esports Director, Grand View University, Iowa

Esports is an industry of trial and error. From the publishers determining which games will resonate with users to universities trying to figure out what an esports program should look like, the only thing that's certain is uncertainty. University leaders are asking many questions and figuring out the answers for themselves. Is it a true sport that should be included in the athletics department? Or should it fall under the student affairs department?

Given this uncertainty, any esports coach or director must be ready to adjust as they navigate into unknown territory. Even established programs have only been around for a handful of years. With no proven structure or algorithm, this article attempts to consolidate successes from multiple institutions to help the overall collegiate esports community.

## Athletes and adversity

An esports athlete is a special type of recruit, one who needs to balance the demands of their sport, academics and the social aspects of the collegiate environment. Unfortunately, many fail. Often, when one area of a student's life isn't going well, it seems to seep into all other areas, and the individual becomes overwhelmed. We all face adversity at some point in our lives, but how we handle it determines our success. An esports coach or director is asked not only to navigate through their own adversity, but also to add each player's problems and the challenges of running a new program to the mix. It can be challenging.

## Starting a program

Even more-established collegiate esports programs are constantly evolving. Most institutions are taking a conservative approach, providing limited funds and resources in hopes of yielding a high return on investment. Meanwhile, directors and coaches are looking to gain a competitive edge, which can be defined differently from program to program.

For instance, one institution may use funding for big scholarships to attract elite players, but may sacrifice the equipment and travel budget. Others may focus on building a state-of-the-art arena and hire a remote coach to save money. Any approach can be effective as long as you are focused on providing a quality and memorable experience for the student-athletes.

There are two main questions to consider when first starting a program:

### 1. Program development

Are you creating a collegiate program that can create an identity for an underrepresented community of people with a unique passion?

### 2. Growth and sustainability

Does your institution have the capacity or willingness to support additional space, staffing and budget needs should the program grow? Is a plan in place to sustain rapid growth with needed resources (equipment, budget and staff) while maintaining a quality experience?

In addition, there are five main topic areas to consider when building and maintaining a successful esports program: **recruitment, campus visits, scholarships, retention and collegiate experience.**

## Recruitment

A few recruiting strategies to consider:

- word-of-mouth (heavily used)
- live tournament events and tryouts
- BeRecruited.com
- Discord channels

The nature and structure of gaming allows for communication and relationship development that enhances the word-of-mouth approach. Also, social media outlets and Discord channels allow instant and direct communication to potential recruits. There isn't one right way to recruit at the collegiate level. I have a traditional sports background, and I apply my experiences to esports recruiting. My colleagues and I have different recruiting styles.

I would describe my recruiting style as a vested, **personalized approach**. I am naturally suited to act as a parent to my student-athletes, as I know that many come from broken homes, and I understand how each area of their lives impacts their development and performance. Each program is attempting to establish a unique culture implemented through team standards, values and goals. Developing relationships with each student helps create the best collegiate experience and is vital to the success of the program, on and off screen. If a student feels welcomed and valued from their first visit, they will leave with confidence in your program and university.

For an early collegiate program, it is natural to search for the key to success, but unfortunately there is not a concrete answer. **In many cases, a strategy that focuses solely on recruiting the best gaming talent only leads to frustration, with the likely outcome being a player's early departure from the institution.** A better approach is to think more holistically about each student, and how to build up their time management skills, work ethic, attitude, character, mental stability and academic success, for instance.

When recruiting prospective esports candidates at the collegiate level, I ask the following questions:

1. Will the student be able to handle the academic load of college, as well as the time commitment of playing competitive esports?
2. Will our institution provide the educational opportunities that are the best fit for this student's passions and future endeavors?
3. Is our program able to fulfill the student's competitive needs and desires?
4. What skill level can I afford? In other words, some students may expect a full-ride scholarship offer because they have put a price on their skill level. Realistically, most schools cannot provide this unless they have a cost-effective scholarship structure. Deciding how you can match a player's skill set with worthy "compensation" becomes a challenge.

## The campus visit

Prospect visits play a critical role in helping players select an institution that is best suited for them. Being intentional about the campus appearance (cleanliness), the people they encounter (friendly and welcoming), and the overall ambiance (positive vibes) throughout prospective student visits is important because each plays a role in helping students decide between schools.

A successful prospect visit at Grand View University will (theoretically) follow these steps:

1. The student will meet with their dedicated first-year or transfer admissions counselor.
  - This visit entails discussing their projected academic progression and succession plan to graduate from the institution.
2. The student and/or family will discuss financial aid, grants and scholarships.
  - This time allows the student to discuss available institutional aid, grants, any outside scholarship funding, student loan options and payment plans, and FAFSA questions.

3. The student will meet with a faculty member from an academic major of interest.
  - Meeting faculty and staff from their projected major of interest allows the student to gain a better understanding of their academic journey as well as the potential opportunities at the institution and beyond.
4. The student will visit the esports arena with the director, coach and a player from their prospective team.
  - I sit down with the student and/or parents to address any questions, comments or concerns. I have found that parents can be leery of letting their children attend college for competitive video gaming, so this is important.
  - Emphasizing that the success of a player is dependent upon their academic progress can be reassuring to parents. As a student-athlete, it is mandatory that a player in our program maintains a 2.0 GPA. Implementing mandatory weekly study tables has proven to be beneficial in our second-year program. In our first semester after implementation, there was a notable improvement in academic success, with seven students earning a 4.0 GPA and 15 earning above a 3.0 GPA.

## Scholarships

Scholarships can be awarded in several different ways. Here are some existing structures common in esports:

1. Create a designated amount of scholarship dollars to draw from (e.g., \$50,000 of designated esports dollars) that can be allocated until exhausted.
2. Depending on the caliber of institution, a varied scholarship structure may be offered, such as: five full-ride scholarships and five partial scholarships, and then eight to 10 or more walk-on players. The structure will vary by institution and revenue levels.
3. Scholarships may be awarded on a case-by-case basis, with an average level of student aid derived from a calculated algorithm.
  - In this scenario, the institution could award the average level of aid per student, or go above and beyond with justification.
  - The institutional aid could include academic scholarships, grants, outside scholarships and extra-curricular scholarships.
  - Depending on how many students you have in your program, using a cost-effective algorithm to determine a justifiable average level of student aid can be both effective and profitable.

Scholarships are generally offered after the player is accepted to the institution and the player's skill level has been fully evaluated by staff.

## Retention

The first semester of college is crucial to retention, whether or not a student participates in extracurricular activities or sports. The first six weeks are extremely important to their psychological, emotional and mental state, as a student attempts to answer questions such as: "Do I belong here?" and "How do I fit in to this new community?"

Oftentimes the camaraderie and success of a team play bigger roles than academic success in terms of student retention. Unlike traditional sports, an esports athlete can spend five to eight hours per day honing their gaming skills, and unfortunately, this means that some may neglect their academic studies. The esports staff must pay close attention to each aspect contributing to the overall institutional experience for each player, so an intervention can take place immediately if any aspect suffers. It is vital for a student to feel engaged, supported and encouraged by peers, coaches and faculty.

Retention can be improved by implementing structures outside of team practices and competition, such as creating a routine for players. At Grand View, we have found success with mandatory semiweekly study tables for all students that each last for one hour. This emphasizes the

importance of their education, and helps athletes to hold each other accountable while building time management skills.

We have also implemented weekly team workouts to build physical health. Surprisingly, this unfamiliar setting for many has resulted in enhanced camaraderie and team cohesiveness. Explore similar opportunities for teamwork.

## The experience

Think back on your collegiate experience and identify the most positive aspects. I was a college athlete, so my approach to esports is influenced by the most positive elements of my own college experience, including:

- coaches and staff
- knowledge shared and gained
- community and inclusiveness
- pride in identity (school and self)

Did I have a developmental program to continue striving for excellence? Was I supported academically to be my best? Did I have the proper equipment, tools and structure to become the best version of myself? The answer to these questions is “yes,” and I want the same for our esports athletes today.

The beauty of esports is that it brings together people from all backgrounds, ages and skill levels. Esports is a tight knit community. Its rapid growth, including the sheer number of players and spectators today, proves that it is a global sport that will only continue to grow. Let’s do our part in making esports prevalent and relevant on the college scene.



**Dana Hustedt** — Dana is the Director of the Grand View University esports program. She is responsible for the day-to-day operations, mission and program development of Grand View esports. Dana brings a wealth of gaming and athletic management experience to this position. She is the first woman in the nation to direct a university esports program. Dana’s journey to becoming an esports director was documented by ESPN.com in November 2018.

# Chapter 4: Esports Arenas and Facilities: What To Build and How To Build It

By Kathy Chiang, Assistant Director of Esports,  
University of California, Irvine

So your institution is interested in esports. Perhaps you already have a few teams in place and some staff or faculty members willing to champion the cause. Or maybe you're just starting, but you like to plan ahead. A logical step and often integral part of department building involves creating a facility to support your personnel and programs, both current and future.

This may seem like a daunting challenge, as esports is still relatively new, and there isn't a one-size-fits-all approach. However, there are plenty of examples to learn from in the gaming industry—at other schools or even on your own campus.

Below are some questions and topics that may be helpful in guiding your decisions.

## Purpose and audience

It is necessary to understand why you are building an arena in the first place. Do you have a competitive team that needs space to practice? Is there an existing gaming community on campus that needs a home? Is this supposed to be a revenue generator for your program and your school? How important is a spectator experience? Will you be streaming or creating content?

It's generally a good idea to involve audience members as stakeholders. For example, if the primary objective of the space is to provide entertainment for your students and encourage their involvement in your program, then it would help to conduct surveys with or directly involve students already interested in gaming or esports, such as officers of video game clubs.

## Location

### 1. Where can the facility be built?

Space is often a rare commodity on college campuses. Therefore, one of the first steps should be to determine where the esports arena will be located. Do you have partners in housing? Can the arena be a part of an existing student life or recreation center? Is there room for another lab in the computer science building?

### 2. What are the strategic advantages or disadvantages of the location?

Whether you're lucky enough to have multiple options or you just want to make sure you're addressing potential problems before they arise, there are a few factors that can greatly impact your arena's success.

One is natural foot traffic. Does your core audience already frequent the area? If not, are the facilities accessible enough so as not to deter those who may want to visit? Do campus tours already make stops nearby? Depending on the purpose and audience of your facility, some of these questions may not be as important as others.

Also important for any esports space is sufficient power and internet connectivity for your desired layout and equipment. Are these requirements already met, or can they be implemented?

### 3. How large is the space?

The size of your facility will help determine how much equipment you can fit, and how to section off the space. The square footage should also make sense for expected demand. Including office space for program or operational staff will affect how many computers you have available for public use.

For example, if your campus population is relatively small, then a huge space could easily be underutilized. But if your campus gaming community is already quite large, a smaller space could result in capacity issues and negative experiences for your visitors.

## Technology and equipment

### 1. What gaming equipment do you need or want to offer?

#### Systems

There are two major categories when it comes to gaming: PCs and consoles. It's important to do enough research on your campus and on intended use to determine if or how many PCs and consoles should be offered.

This decision can be easily influenced by which competitive leagues your program plans to join. Often, even if the game is offered on multiple systems, league administrators will require a specific version for tournament play. More often than not, this ends up being a PC for many modern esports titles.

Beyond the debate of PC vs. console, there are also platform-specific games; some game titles are only available on certain consoles. Another category of games that's quickly gaining traction is virtual reality. VR games also have similar considerations: Which headsets should you use? Are they compatible with your systems?

Finally, you'll have to consider system configurations and specifications. The easiest way to narrow down your price range is to check out the recommended specifications for each game title you wish to support (or at least the ones that are most demanding).

#### Displays

Console games are often built for TVs, but most competitive titles will require monitors. It is worth investing in high-quality monitors. As of this publication, a high-quality monitor typically means having at least 144Hz and 1080p, and being between 24 inches and 27 inches in size. The refresh rate will affect how quickly your players can process information, and the size guarantees that there isn't too much or too little on the screen at once.

#### Peripherals and accessories

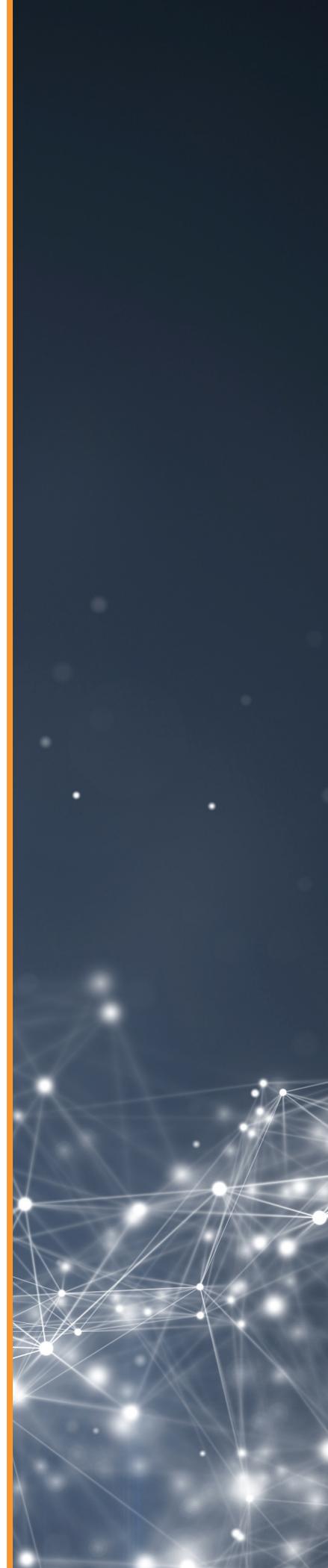
This category includes controllers, computer mice, keyboards, mouse pads and headsets. (If you want to be extra fancy, this might also include standing microphones and webcams.) Typically, there shouldn't be a huge difference in what is provided. Some centers opt to lend out such accessories, but mostly rely on users to bring their own. Remember, the quality or even brand of your peripherals will affect perception. There are peripherals specifically advertised for gaming, and these will typically suit your needs well, especially since many offer noise cancellation. However, the biggest factor is your budget and whether you're working with a sponsor to provide equipment.

### 2. Which game titles should exist on your systems?

Other than obviously supporting the titles your esports program uses in competitions, a survey of the most popular games can help you decide. Another option is to look up which games are most popular overall in your country or region. For example, consult Twitch.tv, one of the most popular streaming and content creation websites for gaming, and see which games are consistently performing well. This can be particularly helpful for identifying new trends and unreleased titles.

#### Game licenses

Some gaming centers will purchase a certain number of game licenses so any visitors can play games without purchasing or creating their own accounts. Although this may be a good strategy in certain situations, most games list "account sharing" as grounds for an account ban. It's also possible that allowing a customer to use accounts that are not tied to their identity can lead to more toxic behaviors and rule-breaking.



There are plenty of free games that are just as popular as paid titles, so not providing paid game licenses is OK. Most people also enjoy having their own accounts to track progress; this is particularly true for games with progression or ranked systems.

### **3. What software and hardware will you use to reach your goals?**

Other than using the tools that you have (such as software for managing computer labs), you may need to consider situations that are unique to your center and will require additional solutions. For example, do you want to lock down which games are accessible and which games can be installed? Do you need time management software to ensure a healthy rotation of users? Do existing payment tools work for your particular needs?

Increased security is a common priority for a college esports program. Unlike an independent esports business, you may have additional firewalls and security checks that may cause latency in popular online games. Or maybe your university only allows computers to be run without administrator privileges, therefore causing issues with game patches and common game management software. Remember: Having a great relationship with your IT department can come in handy.

### **4. Are there additional needs to address for the success of your esports facility?**

Depending on the quality and quantity of your equipment, the amenities offered by your location, and the overall climate, there may be additional needs to ensure a solid experience for your visitors and the longevity of your equipment. Make sure to test for overheating, overexertion of your network, and latency issues. The network needs for a gaming center are vastly different from the network needs for a typical office.

### **5. Will a key arena activity be streaming, content creation or event production?**

More and more facilities are creating broadcast stations or production rooms for streaming or creating content around their programs and events. As streaming is a huge part of the esports ecosystem, this can also create plenty of student jobs and opportunities to improve skills that are relevant to the professional world.

Some esports facilities will work with campus film and digital media programs. You may also consider creating your own production teams and building up a talent pool of hosts, observers and shoutcasters.

## **Funding and partners**

Every school will have a different situation in regards to budgeting. But keep in mind that plenty of both endemic and non-endemic brands are interested in sponsoring esports at the collegiate level. Some of your institution's existing sponsors may also be open to exploring or actively seeking options for supporting esports.

Some natural allies for any esports program may include your student community, games studies programs, game developers or publishers, and your school's IT experts.

## **Operations**

There are plenty of questions that need to be answered regarding the operations of your arena, including:

1. What hours make the most sense for your facility? Are there curfews to consider?
2. If you plan to charge for equipment or venue use, what rates are reasonable?
3. Are there special rules regarding nonstudents? Minors?
4. How many staff members do you require, and where will they come from?
5. What are your performance goals and measures of success?

Staffing can be tricky. Some institutions aren't ready to dedicate employees to an arena, but my recommendation is to have at least one full-time staff member responsible for the facility. Often, students can take on jobs performing other tasks, including basic troubleshooting and front desk customer service.

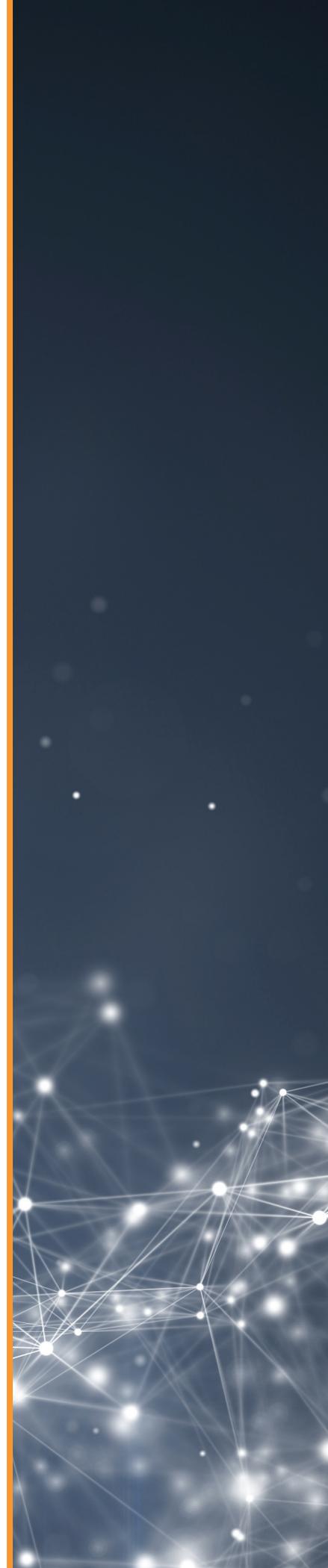
One note on competitive vs. casual play. Several factors can make or break the experience when developing a facility for team practices and matches. It is important to allow for enough desk space per player, particularly for games that depend on low mouse sensitivity to achieve higher accuracy. Proper noise management (such as unidirectional microphones and noise-cancelling headphones) and good voice communication tools can make a big difference for both players and coaching staff.

## The importance of being flexible

Ultimately, every decision should be well informed and catered to your unique situation. As more esports programs and arenas appear, we will all continue to learn, improve and evolve together. Esports is still very fluid. Rules are being created, game titles rise and fall in popularity, and successful programs must adapt to rapid changes. What works today may not work a few years down the line, and what works for one institution may not work for another. Carefully consider the priorities of your campus and prepare for difficult questions and concerns that you'll have to address.

Since esports is a young industry, there are still plenty of unknowns. But there is no denying that esports will play a large part in the future of our young people and our society.

**Kathy Chiang** — Kathy manages the arena and student staff for the esports department at the University of California, Irvine. She graduated from UCI as a computer game science major after co-founding and leading one of the largest clubs on campus, The Association of Gamers. Recognized for her work with the campus gaming community and collegiate esports space since 2011, she was brought on as a key advisor for shaping the new esports program. Her favorite games include World of Warcraft, FFXIV, Path of Exile and TypeRacer.



# Chapter 5: Hardware, Infrastructure and Games

By Ramsey Jamoul, CEO, Midwest Esports

Often, esports is compared with the Wild West because of its rapidly changing landscapes and relatively open future. It is important to develop an esports program with the intent of sustainability in all aspects of technology: software, hardware and infrastructure. This is how you prevent your program from becoming the pony express of the Wild West: obsolete. We must build our programs with the ever-changing industry in mind. This will greatly aid in providing improved performance and healthy practices for your students.

Esports has the advantage of sharing technologies across various video games, unlike many traditional sports. Baseball stadiums can't really be used for tennis or basketball, but League of Legends, Counter-Strike, Overwatch and many other video games can be played on the same machines. There are only a few key differences in esports. The two main categories of gaming hardware and software are console and PC gaming. As of 2019, console gaming has not been widely established in collegiate esports. Most of the top popular esports tournaments use PCs for games such as League of Legends, Counter-Strike and Overwatch.

## League of Legends

As of 2019, League of Legends is by far the most popular collegiate video game. League of Legends shares some common traits with the other top-rated video games of the past couple of decades. It has been a game changer with a unique model and game type. League of Legends defined the multiplayer online battle arena (MOBA), a new genre. It is accessible on almost any computer and playable even on lower-performance machines. It is very easy to learn, but still allows for very high skill mastery. Most important, it is free to play. Ultimately, this means League of Legends has a very low barrier of entry compared to other games. University programs should consider League of Legends due to its high volume of collegiate teams and low performance requirements.

## Fortnite

Every so often, a new game will come out like League of Legends that changes the industry, adds something new, and potentially taps into a new generation or market. This can directly impact university esports. ]Fortnite, and its explosion in popularity over the past year, is a perfect example. Fortnite is a cross platform, Battle-Royale-style video game. It is revolutionary, and is already seeing collegiate esports teams within the first year of its release.

The most unique part of Fortnite is its game type. One hundred players can participate in the same match. Fortnite provided the first true cross-platform matchmaking system, which simply means that people playing on a phone, console or PC can potentially be in the same match. As a note, PCs will have more precision and accuracy than consoles, and are therefore the preferred choice for competitive play.

## Selecting games

For prospective colleges looking to choose the video games for their programs, I would recommend networking with local communities, nearby universities, nearby high schools, sports commissions and visitors bureaus. Also, determine what is nationally popular and has a strong collegiate ecosystem and structure. I would recommend League of Legends, Overwatch and Counter-Strike. These games are three of the top team-based video games with strong communities and even stronger professional leagues. These professional leagues are important because they provide support for the ecosystem and allow collegiate teams to flourish.

It is important to recognize that video games are intellectual property. Almost all games require each player to have a license that they must agree to in order to play the game. With each company presenting different terms and agreements, it is important to ensure that esports programs stay up to date, and know exactly what they can and can't do with the intellectual property they are using. Even League of Legends, which is free to play, is only providing licenses to the players who create accounts in their system. In some cases, the only option may be to require a player to have their own account, which may also be the best choice because the account may contain private information.

## Hardware specifications, and room layout

The choice of games will impact the physical layout and requirements of a practice or competition room. Generally, esports teams consist of four to six players. The room orientation and the close proximity of the players are important to consider. Having the flexibility to position computers as needed can overcome the potential changes in the industry. It is also important to choose equipment that can be adjusted to the individual. Selecting gaming chairs, tables and monitors that allow for player customization in a safe and healthy manner can also improve performance.

There are many specifications when it comes to computers, which will change dramatically every two years. Planning for improvements to stay up to date with hardware is important. Games have ever-increasing minimum requirements. For example, fast-paced games such as first-person shooters require high frames per second, and need to be in tune with the refresh rate of the monitor. There is a noticeable difference or delay when they are not synced properly, and the performance will be limited by the hardware you purchase. Monitors are generally 60Hz, 144Hz or 240Hz, and while it is likely that the average consumer wouldn't notice a difference among these specifications, experienced gamers would. Most video games offer reasonable minimum requirements, but for a competitive video game team, you should exceed the minimum hardware requirements for a game. Based on your program's needs, you can develop some minimum requirements and purchase PCs built to those standards.

Headsets, mice, keyboards and mouse pads are usually the players' personal equipment—similar to the preferred bats and gloves for baseball players. There are many styles of each, offering a different shape and function. There are a few common styles of mice based on grip. Mouse pads are based on the video games and players' preferences. Keyboards offer different types, sizes and layouts. Headsets are even more personal and important to have.

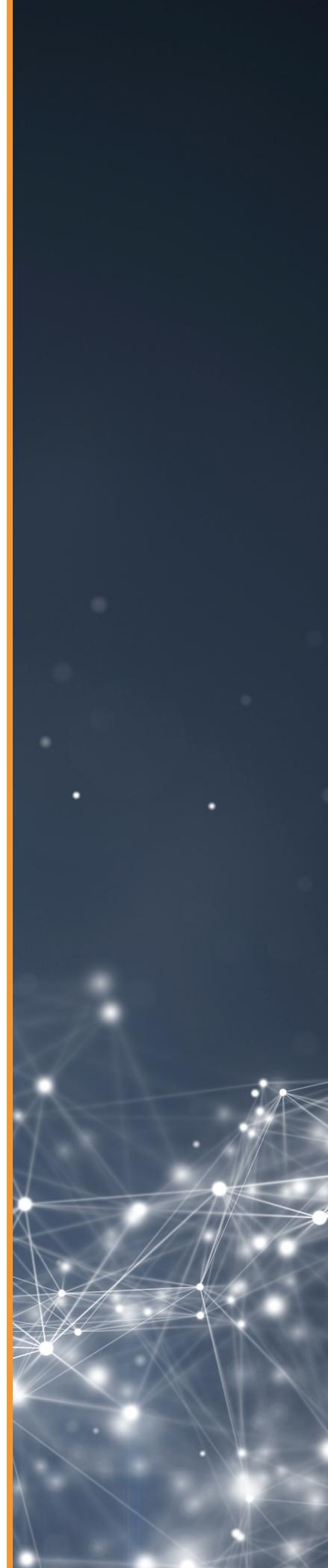
Also consider projectors, screens, TVs, whiteboards and other items that may be unique to your esports experience. Extra chairs, couches and tables can allow for breakout spaces, watching replays as a team, and much more.

## Internet bandwidth and electrical power

Generally the biggest challenges in repurposing an existing room for esports are inadequate internet access and insufficient electrical power. The required power can be determined from the number of machines in the area. If the area was not intended to be a computer lab, it may require electrical power upgrades. Internet bandwidth can be determined by the video games, number of machines and streaming needs.

Many security systems in place on the internet, such as firewalls and blacklisted IP's, may prevent video games from working properly. Each video game has clear steps to properly set up the network and has a support system.

A good strategy is to provide enough flexibility to change the floor plan when needed and to adapt to the changing industry. Robert Morris University's esports program in Pennsylvania provides the perfect example of a flexible practice room and varsity room. The school chose to outfit the computer desks and tables with wheels. Based on the video game they're playing or the format for the day, desks, machines and chairs can be moved quickly and easily into a suitable layout, allowing for flexibility for multiple games and types.





When considering an esports program and arena, the guiding themes are sustainability and flexibility to allow your esports program to grow and expand, and manage the ever-changing requirements of new games and the rapidly evolving world of esports.

**Ramsey Jamoul** — Ramsey is an avid entrepreneur, programmer and gamer. Ramsey was one of founders for the Wichita State University esports team in Kansas, and he helped to build the infrastructure for esports in the Midwest. He established Wichita Esports and grew it into Midwest Esports by building a path for amateur players so each one can become the next Michael Jordan of esports. As CEO of Midwest Esports, he now has set his sights on professionalizing amateur, collegiate and high school esports around the United States

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# Chapter 6: The Benefits of Joining an Esports Association

By Michael Brooks, Executive Director,  
National Association of Collegiate Esports (NACE)

It used to be said that esports was the “biggest thing you’ve never heard of,” but today, I’m not certain that we can continue to say that. Collegiate esports is a rapidly growing phenomenon on campuses across the United States and Canada, with new announcements from institutions every week. With just under 140 colleges and universities now fielding varsity esports programs, the need for organization has never been clearer.

## History of NACE

The National Association of Collegiate Esports (NACE) was founded on July 28, 2016, at an event in Kansas City called the Collegiate Esports Summit. The Collegiate Esports Summit was a two-day event that brought together representatives from over 40 institutions to discuss the topic of varsity-level esports. Six of the seven varsity esports programs existing in the U.S. at that time were represented. Most of the summit consisted of a deep dive into why institutions were exploring esports, how the establishment of esports programs had been accomplished at that point, and the complexities of esports.

After that summit, it was clear that there needed to be a platform to educate institutions on the subject of collegiate esports; to standardize how institutions interacted with each other, with students and with outside entities; and to pool resources to achieve greater goals. Historically, the vehicle used to accomplish those distinct goals in higher education has been an association. And so, those same six institutions with some of the first varsity esports programs became the founding charter members of NACE.

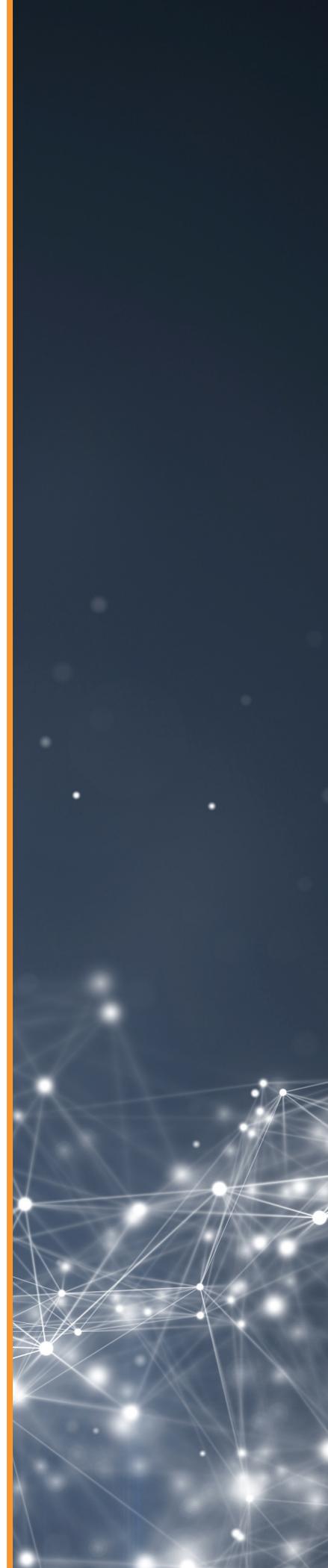
There were, and still are, other organizations operating within the collegiate esports space. But a clear distinction existed between the interests of those organizations—primarily running competitions and events—and the needs of college and university administration, which included how to successfully build, operate and grow esports programs on campus. NACE’s main focus area is on those college needs, though the association also facilitates competition.

## Gathering information

Early on in the formation of NACE, we understood that one of the key barriers preventing more institutions from exploring esports was the lack of available information. Fortunately, associations are typically excellent at asking questions, and this is certainly true here at NACE. We quickly set to work analyzing how the few existing esports programs were structured, particularly from a staffing and budgetary perspective. This core of information allowed us to develop aggregates, which could then be used to develop templates and guides for institutions interested in how to develop esports on their own campuses.

Since then, we’ve maintained an ever-evolving annual program development survey, focusing on what esports programs look like now, and how institutions are planning to develop them in the future. Coupled with our historical datasets, we’ve managed to develop fairly strong blueprints for how most esports programs start and develop.

The data from those program development surveys (and quite a few other sources of information) was key to the explosion of esports programs on campuses in the U.S. and Canada. In part, the expanded and readily available datasets and templates helped to ease the process for administrators to build a case with their respective teams.



## The mission of NACE

NACE is a nonprofit membership association organized by and on behalf of our member institutions, and is the only governing body of collegiate esports in North America. Together, our members are developing the structure and tools needed to advance collegiate esports in the varsity space. We are collaborating to lay the groundwork in areas such as eligibility, path to graduation, and competition and scholarships. NACE currently has 127 varsity esports programs as members, accounting for nearly all (94%) varsity programs across North America.

Currently, NACE requires all active member institutions to be fully accredited by an authorized higher education accrediting agency relative to their region and/or national affiliations. Secondly, we require all members to have varsity programs on campus. A varsity program is defined as any program that recruits students specifically to play esports, and provides scholarships, a dedicated esports arena or practice area, equipment necessary to facilitate competition, and faculty or staff to facilitate and administer the esports program.

## Defining varsity esports

I've mentioned the term "varsity" quite often so far, but I feel I would be remiss if I didn't help define that term as well—especially since esports crosses over so many other departments outside of the athletics department, which is historically where varsity programming resides.

The determination of whether a program is considered "varsity" within this association is based upon the following criteria. An institution may not fulfill all the standards below; in such cases, the institution must show active plans to bring their programs in line with these standards:

- Have a dedicated staff or faculty member in charge of the esports program.
- All staff must be employees of the institution.
- The school must be actively recruiting students specifically for the esports program.
- Each student must match two of the three following academic requirements to be eligible:
  - a minimum score of 18 on the ACT or 860 on the SAT (for tests taken after April 1, 1995)
  - an overall high school GPA of 2.00 or higher on a 4.00 scale
  - graduate in the upper half of their high school's graduating class
- There must be a dedicated space (arena, lounge, lab) on campus for these recruited esports students to practice, scrimmage, compete in competition and hold tournaments.
- The equipment necessary to compete in esports must be provided by the institution for their team's use, or the equipment must be supplemented by the institution for their team's use.
- Schools must adhere to the constitution and bylaws of NACE.
- Schools must have an established path to graduation for their students participating in esports.

One key item to notice is that scholarships are not a required component of a varsity program, though people tend to naturally gravitate to scholarships when thinking about varsity athletics. But even in varsity athletics, NCAA DIII institutions, for example, as a general rule, do not provide athletic scholarships.

At the end of the day, varsity is a general term referencing certain standards and expectations for both the institution and the participating students. Varsity programming in esports was initially thought of as a way to attract a different set of students than is typically recruited by an institution, and to retain those students through graduation.

## The impact of esports on recruiting

There is probably no endeavor in traditional athletics that has the same level of positive impact for so few resources expended than esports. Adding approximately 20 residential students to the institution's campus in a year, and doubling the level of student participation year-over-year for at least the first four years, would be a remarkable feat for any type of program. We see results like this often in collegiate esports.

The construction or renovation of an esports facility not only benefits current students and student-athletes, but is also a highly effective recruiting tool for future students. Esports can also produce additional revenue streams for institutions through gaming cafes, sponsorships, boosters

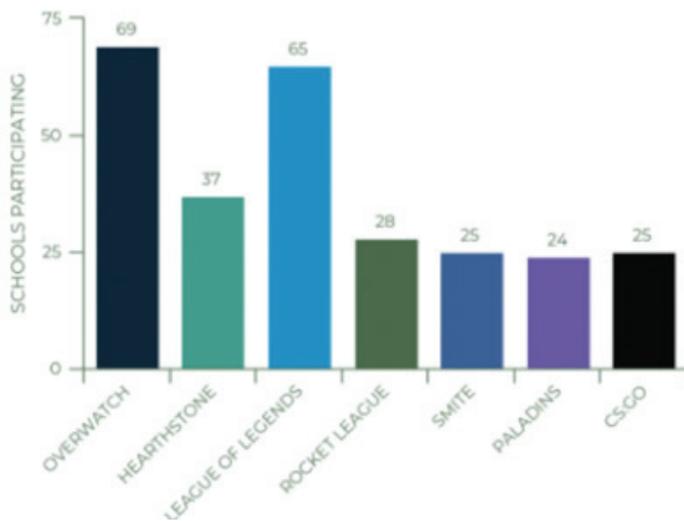
and streaming services. Some programs have managed to balance the entirety of their operating budgets through gaming cafe services alone.

Adding an esports program can move your institution closer to being a school on the cutting edge of innovation. Esports can provide a home for those students who might not otherwise be engaged in college spirit, campus activities or social events, while offering an opportunity to make friends and build relationships. Collegiate esports is the fastest growing initiative or sport in higher education today. From NCAA Division I to National Junior College Athletic Association schools, offering an esports program as part of extracurricular athletics has become emblematic of a mature university.

Beyond helping institutions start esports programs, we've been at the critical nexus of helping institutions to grow their existing programs. Over the years, this has been demonstrated in the ever-increasing number of teams fielded in additional esports.

Below is the data we collected from the 2017-18 academic year in terms of NACE institutions fielding teams across different games.

As of the 2017-2018 school year, this is a chart representing the Declarations of Intent for each game.



If you are interested in learning more about varsity-level esports, I encourage you to visit our website at [nacesports.org](http://nacesports.org), or reach out to us at [info@nacesports.org](mailto:info@nacesports.org).



**Michael Brooks** — Michael currently serves as the Executive Director of the National Association of Collegiate Esports (NACE). NACE is a nonprofit membership association organized by and on behalf of member institutions and is the only governing body of collegiate esports in North America. NACE's members are developing the structure and tools needed to advance collegiate esports in the varsity space. Areas of collaboration include eligibility, path to graduation, competition and scholarships, IP rights, and program implementation. NACE currently has 127 varsity esports programs as members, accounting for nearly all (94%) varsity programs across North America. Michael worked for seven years as Director of Strategic Partnerships for the National

Association of Intercollegiate Athletics, the governing body of 258 mainly private colleges and universities in traditional athletics. Michael and his work with NACE has been featured on ABC's Good Morning America, ESPN and NBC, and in Forbes, Fortune, SBJ and other media. Michael also serves on the boards and advisory boards of XLive, Becker College in Massachusetts and ReadyUp.

# Chapter 7: Collegiate Esports and Mental Health

By Kent Schornack,  
Director of Leadership and Counseling,  
Grand View University, Iowa

The rise of collegiate esports has been remarkable. Esports clubs began forming around 2010, and Chicago's Robert Morris University pioneered the first collegiate esports varsity team in 2014. In 2018, over 70 schools had collegiate varsity esports programs. The industry is growing at break-neck pace.<sup>1</sup> This growth rate will likely become even more intense as esports provides a unique and low-cost opportunity for colleges to enhance their enrollment pipelines in a higher education market that is increasingly desperate to attract and recruit new students.

## Benefits of playing esports

As with all trends and activities, esports presents potential benefits and challenges depending upon how the gaming environment is engaged and coached. Online gaming has been shown to help improve memory, concentration and analytical development, as players must remain alert and perceptive to the people, personalities and actions that evolve during the game. It also provides opportunities for social development, particularly through multiplayer games that require teamwork and communication. Many players report that their gaming participation has helped them with issues of social isolation and anxiety by giving them a more comfortable and structured means to interact and develop relationships. Financial opportunity via gaming prizes, personal mastery, complex problem-solving, and developing the resilience to deal with unexpected circumstances are a few other potential benefits worth noting.<sup>2</sup>

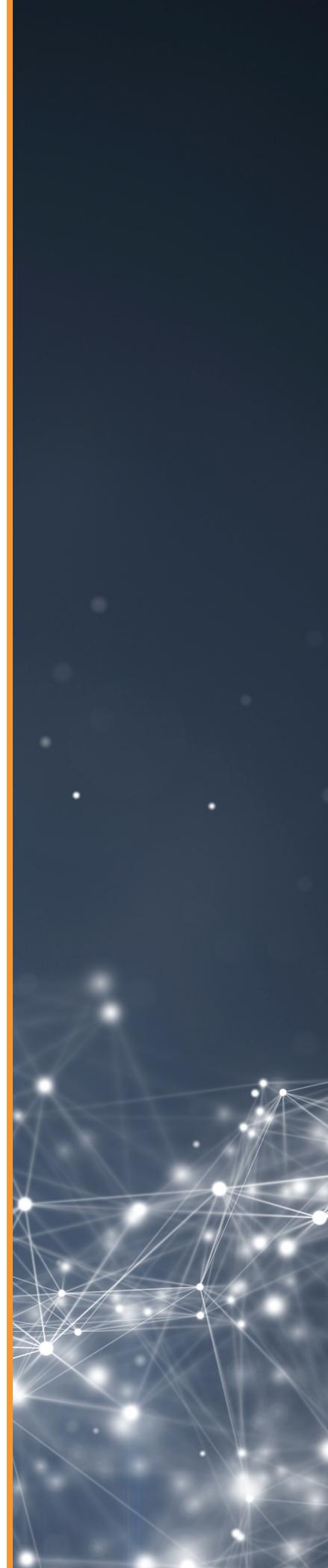
Specific to collegiate esports, additional positive factors include tuition scholarships; face-to-face interaction with and participation in the community of a structured team; guided instruction and personal mentoring from a coach; leadership and program development opportunities; academic growth and degree earning; access to fitness facilities and training; and the opportunity to participate in broader student development activities that exist within the college environment.

## Potential concerns

Fears about the potential harms associated with online gaming are not new, and often center on concerns of social isolation and escapism, inordinate hours spent gaming and the potential for addiction, negative mental health effects, and the physiological impact of gaming on the brain. The explosive growth of online gaming and esports has often left the medical and mental health community in a position of playing catch-up when it comes to the study and verification of potential concerns associated with internet gaming. The team behind Rappler, an online news site, has identified what it considers to be the five most common concerns for esports athletes:<sup>3</sup>

1. carpal tunnel syndrome and wrist injuries due to repetitive motion
2. collapsed lung due to poor posture and inactive lifestyle
3. performance-enhancing drugs
4. mental fatigue and early burnout
5. poor nutrition and lack of exercise

This chapter will explore potential mental health concerns associated with online gaming, and the protective factors that undergird one's emotional well-being. The fast-growing realm of collegiate esports presents college administrators and esports coaches with a unique opportunity—as well as a responsibility—to support the well-being and personal growth of their players. Understanding



the mental health implications of the sport is crucial to fostering student development and helping gaming athletes to achieve their personal best.

## Video games and addiction

Perhaps the most common mental health concern as it relates to online gaming is the potential for addiction. In recent years, concerns about gaming addiction and excessive play have received increased attention from the media, medical and mental health professionals, and even gamers themselves. The concern is legitimate, given the fact that video game developers design the games to entice longer and more frequent play. Game developers utilize many well-established psychological principles to keep players playing.<sup>4,5</sup> These game attributes can include:

- completing a mission, beating a high score or reaching a preset standard
- rewarding the player more frequently in the early stages of gameplay, and increasing the time and effort to receive a reward as the game progresses
- making the game “just in reach” by keeping it challenging enough that the player wants to come back for more, but not so difficult that the player gives up
- giving rewards at random intervals, and establishing a connection between effort and reward
- constructing games with no end, meaning that the person could play forever without “beating” the game
- creating gaming communities, where players feel accepted and can build relationships

Currently, there is no universally accepted definition of video game addiction or an established threshold for number of gaming hours to qualify as an addiction. Experts argue among themselves whether there is sufficient research or any evidence to appropriately classify extreme gaming behavior as an addiction or a disorder. It is evident, however, as articulated by clinical psychologist Dr. Brent Conrad, that there are some gamers who “struggle to keep their gaming habits under control and may place greater importance on their gaming accomplishments than their happiness and success in the real world (e.g., academic achievement, friendships, relationships, career advancement and health).”<sup>6</sup>

Despite the lack of clear consensus of what defines pathological gaming, the World Health Organization (WHO) chose to recognize “gaming disorder” as a diagnosable condition in the International Classification of Diseases in June 2018. WHO’s definition of a gaming disorder provides a framework for evaluating concerning behavior:<sup>7</sup>

- a pattern of behavior that has been evident for at least 12 months
- impaired control that is characterized by an “increasing priority given to gaming over other activities, to the extent that gaming takes precedence over other interests and daily activities”
- a continuation of the behavior despite “significant impairment in personal, family, social, educational, occupational or other important areas of functioning”

In the U.S., the American Psychological Association (APA) has also proposed adding gaming disorder to the Diagnostic and Statistical Manual of Mental Disorders. Although it has yet to be officially classified as a condition, the association has put forth the following symptoms of gaming disorder:<sup>8</sup>

- a heavy focus on internet gaming
- withdrawal symptoms when internet gaming is taken away (sadness, anxiety and irritability)
- building up a tolerance, or the need to spend more time gaming
- not being able to play less, or unsuccessful attempts to quit playing
- giving up other activities, and loss of interest in activities that were once enjoyed
- continuing to play despite problems
- deceiving family members or others about the amount of time spent on internet gaming
- the use of internet gaming to relieve negative moods, such as guilt or hopelessness
- taking risks, having jeopardized or lost a job or relationship due to internet gaming

Under APA guidelines, the individual must have at least five of the listed symptoms to be diagnosed with gaming disorder.

These definitions provide esports coaches direction and support in assessing potential concerns with their players. While behavior descriptions alone should never be the final determination of a problem, they do offer guidance for having caring conversations with players to further evaluate their overall gaming health.

## Prevalence of gaming addiction

Research studies regarding the prevalence of gaming disorders vary in their findings. In a 2017 study done with close to 19,000 gamers in the U.S., United Kingdom, Canada and Germany, 65% did not report any symptoms of gaming disorder associated with the criteria suggested by the APA, and only 2.4% of the respondents reported five or more of the symptoms needed to be diagnosed.<sup>9</sup>

Studies cited by The University of New Mexico purport higher numbers of prevalence, suggesting 6%-15% of all gamers exhibit signs that could be characterized as addiction.<sup>10</sup> Dr. Douglas Gentile, a psychologist at Iowa State University who has been researching video game addiction since 1999, reports that although researchers across the world define and study the problem differently, the range of findings is similar. He suggests it is appropriate to assume that between 4%-10% of gamers can be classified as addicted.<sup>11</sup>

While such results show that gaming disorder affects a small percentage of players, the numbers are significant enough to alert people engaged in gaming or supervising players to be cognizant of the amount of time spent gaming. This is particularly true if gaming behavior appears to be impeding upon one's daily activities and social functioning.

## Warning signs and risk factors for addiction

Warning signs and potential risk factors for addiction are important for esports coaches to understand and look for as they seek to protect and support the health of their players. If potential concerns are identified, it is best to simply ask about the concern in a nonjudgmental, direct fashion. The manner in which the student responds (e.g., defensive, open, avoidant, grateful, dismissive, etc.) is itself telling in assessing the potential degree of concern.

Warning signs for video game addiction include:<sup>12</sup>

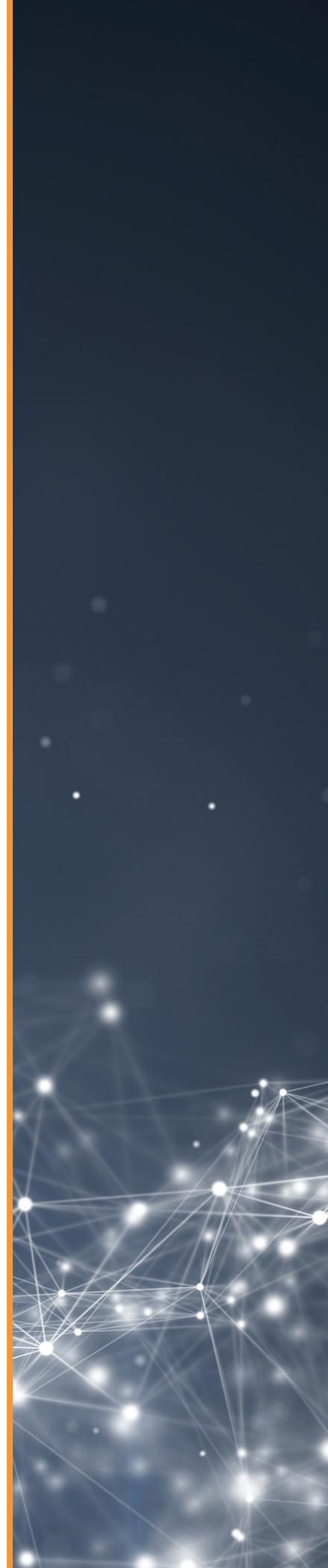
- playing for increasing amounts of time
- thinking about gaming during other activities
- gaming to escape from real-life problems, anxiety or depression
- lying to friends and family to conceal gaming
- feeling irritable when trying to cut down on gaming

Common risk factors for video game addiction also include:<sup>13</sup>

- being male
- having higher levels of aggression and neuroticism (moodiness and experiencing higher levels of anxiety, worry, fear, frustration, jealousy or loneliness)
- positively evaluating one's personal intelligence and negatively evaluating one's social skills
- favoring online role-playing games
- having a greater degree of impulsivity and limited ability to regulate emotions
- having a lot of free time and little involvement in structured activities outside of work or school

## Gaming excess vs. gaming addiction

While gaming addiction is a concern, it should be noted that it is important to differentiate between gaming addiction and excessive gaming. Player behavior needs to be understood both by context and consequences. Mark D. Griffiths, in his article in the *International Journal of Mental Health and Addiction*<sup>14</sup>, argues that "online gaming addiction should be characterized by the extent to which excessive gaming impacts negatively on other areas of the gamers' lives rather than the amount of time spent playing." His study suggests that gaming cannot be described as



addictive if it is not resulting in significant negative consequences on the player's life, even if they are playing for an exorbitant number of hours per day.

Esports coaches can better differentiate between gaming excess and addiction by understanding that addiction in the general sense is typically defined as:

- The individual needs more and more of a substance or behavior to keep them going.
- The individual becomes irritable and agitated if they are not able to get more of the substance or behavior. While most people associate addiction with substance use, it is clear to see that compulsive gaming could meet this criterion. Some gamers actually report withdrawal symptoms from discontinuing gaming.

## Other mental health concerns

Two notable studies in the past decade indicate a high correlation between video game addiction and depression. A two-year longitudinal study followed over 3,000 students in Singapore and found that greater amounts of time spent gaming, lower social competence and impulsiveness were risk factors for developing a gaming disorder. Heavy gamers, defined as those who played an average of 31 hours per week, were found to be more likely to suffer from depression, anxiety, social phobia and lower school performance.<sup>15</sup> Another study followed 1,000 healthy Chinese teenagers ages 13-18 and found that those who used the internet excessively, primarily for video games, were two times more likely to be depressed nine months later.<sup>16</sup>

Dr. Gentile, the Iowa State University professor, argues that his research doesn't prove that playing video games causes depression. Rather, he proposes that mental health issues and "pathological gaming" may develop in tandem. A young person who already suffers from depression and anxiety, and who is more socially inept and isolated, may withdraw into gaming, and gaming, in turn, may worsen these symptoms.<sup>17</sup>

Whether or not one causes the other, meta-analysis of several studies has shown depression and anxiety to be particularly prominent among high-use gamers. Other detrimental health-related outcomes associated with excessive gaming can be fatigue from lack of sleep, diet-related concerns due to not eating properly, and social avoidance, all of which have corollary mental health implications.<sup>18</sup> Esports coaches must take all of this into account while working with players and supporting the overall health of the individual and the team.

## Understanding and assessing mental health protective factors

Protective factors are attributes that help individuals deal more effectively with stressful events. They are resources that exist within and outside of ourselves that we do, develop and pursue to help us productively engage in life. The understanding and attention given by esports coaches to developing these factors in student-athletes is extremely valuable.

### 1. Knowing what to observe

One of the most significant studies to come out of mental health research in the past 25 years has been the extensive longitudinal study of adverse childhood experiences (ACEs). ACEs are eight to 10 identified factors (three for abuse, two for neglect and five for household dysfunction) in childhood creating traumatic and high-stress experiences that upset a child's sense of safety and well-being. Examples of ACEs include one's parents divorcing or separating, having a family member incarcerated, experiencing physical abuse, and not feeling loved. ACEs were found to be common across the general population, and were shown to lead to a host of negative health and social consequences throughout a lifetime.<sup>19</sup>

Astoundingly, the life expectancy of adults who experienced six or more ACEs in childhood has been shortened, on average, by 20 years. These adults are also 4,600% more likely to become IV drug users than people with no ACEs. Additional findings show that people who have more than four ACEs compared with people who have no ACEs are:<sup>20</sup>

- six times more likely to have been diagnosed with depression
- 2.5 times more likely to have absenteeism
- 3.3 times more likely to smoke
- 2.2 times more likely to have a heart attack
- 2.3 times more likely to report serious financial problems

While these findings are both sad and alarming, they provide an opportunity for esports coaches, educators and other individuals to better understand, assess and facilitate protective factors for the young people with whom they work. Contrary to the popular medical (disease) model of cause, the ACEs study shows that emotional and social factors have a greater influence on addictive behavior (even with alcohol or substance abuse) and most mental health concerns.

This does not dismiss the high importance of our medical understandings and intervention, but it does suggest that concerns with online gaming addiction and other potential mental health conditions are more experience-dependent than disease-dependent. The function of addiction and other maladaptive coping behaviors, in other words, are more psychological in nature and, consciously or unconsciously, are focused on escaping or managing emotional and environmental distress. This understanding improves the ability of the esports coach to better predict and evaluate a player's well-being, and alert them to potential concerns for gaming addiction and other mental health concerns. It also gives guidance on how to better promote mental health and influence a positive gaming culture.

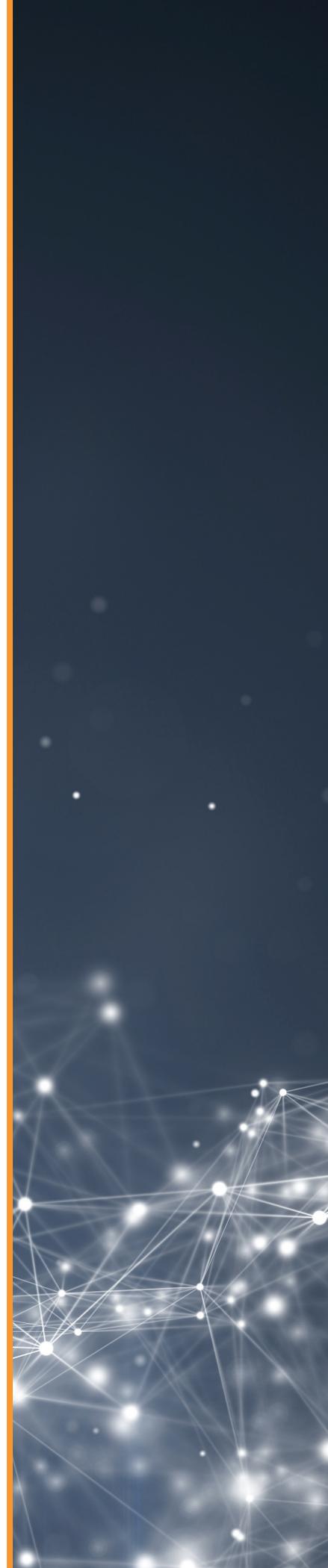
Esport athletes who have had a high number of ACEs present a greater risk for addictions and mental health concerns. An individual's number of ACEs, however, should never be used as a determining factor or a reason not to recruit or accept a student. Instead, the function for assessment that is most helpful to explore with student-athletes, ACEs or not, is the story of their lives and how they have been affected by potentially difficult and stressful experiences. The brief eight to 10 yes or no questions on the ACEs assessment can provide guidance for areas to understand about a person's history and story; however, the ethics of using the ACEs questionnaire, or requiring a student to take it, must strongly be evaluated. **The key is understanding how students interact with difficult events that have occurred in their lives and assessing their propensity for resilience.**

## 2. Resilience

Resilience is the ability to overcome adversity, or to be able to bounce back from hardship. In a world filled with experiences of stress, trauma and struggle, it is important for us to understand what enables some people to be resilient and move forward through adversity, while others remain stuck and deeply impacted. Social work professor and researcher Dr. Brené Brown offers insight in her book *The Gifts of Imperfection*. She summarizes the five most common factors of resilient people found in the research:<sup>21</sup>

1. They are resourceful and have good problem-solving skills.
2. They are more likely to seek help.
3. They hold the belief that they can do something that will help them manage their feelings and cope.
4. They have social support available to them.
5. They are connected with others, such as family or friends.

As we listen to and understand students' stories, these are the vital factors to look for in assessing emotional health and well-being. The concern with addiction and maladaptive coping behaviors is not as much about "what the person is doing," as it is about "what the person is not doing" because of these behaviors.



Some of the critical questions we can consider and ask about the student may include:

- Is the student avoiding interpersonal interactions and relationships through excessive time spent gaming?
- Is the student escaping or “numbing” from difficult emotions through gaming?
- Is the student substituting real life for virtual life?
- Is the student goal-oriented, and do they exhibit effort toward their goals?
- Is the student able to be vulnerable, and do they pursue help when needed?

Spirituality and hope have also been identified as two very important aspects of resilience. Spirituality can include one’s faith in God, but in the broader sense, it is about resilience that comes from a belief that we are all interconnected, that there is power and purpose greater than ourselves, and that goodness, love and compassion are virtues that should guide us.<sup>22</sup> Hope pertains to an expectation and desire for something positive to happen. Research by C.R. Snyder suggests that hope is more about a way of thinking than about an emotion we feel. It involves the ability to tolerate disappointment, to effect change by working toward realistic goals, and to believe in our potential to reach our goals.<sup>23</sup> Both spirituality and hope guide us and ground us. Without them, we lose perspective and meaning, which makes it difficult to persevere and remain resilient when faced with challenging emotions and experiences.

The questions about spirituality and hope that we can consider and ask a student may include:

- What gives you a sense of purpose in your life?
- What keeps you grounded and persevering when you encounter difficulties?
- What personal goals do you have and how do you work to achieve them?
- What degree of belief in yourself do you have that you can achieve your goals?
- Have you ever had a time in your life where you have given up that you feel comfortable sharing with me?

Angela Duckworth dedicates an entire New York Times bestselling book, *Grit*, to further our understanding of resilience. What her research reveals is while talent and noble ideas are valuable, it is actually dogged determination, or grit (resilience), that is the greatest predictor of one’s success.<sup>24</sup> She developed the 10-question Grit Scale that is easily found on the internet. When answered honestly, the Grit Scale is highly predictive of resilience, and offers an esports coach a very easy and practical assessment tool.

### **3. Wellness Wheel**

Another simple tool to help evaluate an individual’s overall health is the Wellness Wheel. The Wellness Wheel is a visual guide that helps the athlete and coach better understand the player’s overall health in relation to the seven dimensions of wellness. Each dimension includes common characteristics and behaviors that contribute to one’s wellness and quality of life. There are times where one aspect of wellness may be more pronounced than others, but a neglect of any one dimension or a lack of balance over time can have adverse effects on one’s physical and mental health. In addition to assessing an athlete’s balance of health, the seven dimensions of wellness give insight into potential programming areas coaches can develop to benefit player health and success. Free paper and electronic assessments can be accessed online.<sup>25</sup>

### **4. College as a protective factor**

The college environment itself can be very beneficial to a player’s personal mental health and well-being. Many of the concerns associated with online gamers is their potential isolation and escape into the virtual world of gaming. Being part of an in-person team, receiving guidance from a coach, and having the ability to be engaged in the activities of a college community are incredible assets that support overall student development. The value of the college environment should be communicated to prospective recruits and their parents as they make important decisions about their paths and pursuits.

## Building protective factors to support player mental health

Time given to developing the whole person, in addition to gaming talent and skill, benefits not only the individual player but the team. Greater personal and team health also has payoffs for overall team and program success. While not exhaustive, here are nine suggested protective factors coaches can facilitate with their team:

**Critical awareness:** This is the ability to be aware of one's self and the messages that drive us. This means being aware of our personal story and how it has shaped our behavior and style of relating with others, particularly in regards to how we manage pain and disappointment. It also involves reality checking our negative self-talk, such as "I can never do things right," "I'm not good enough," "Nobody loves me," "I am all alone," "I have to be perfect," or "I'm a failure." As we increase our awareness, we are better able to see and change the thoughts and behaviors that often unconsciously direct us.

**Vulnerability, and seeking support:** Many people avoid vulnerability, and therefore support, because they perceive it as weakness and fear that opening up will lead to rejection. Vulnerability isn't good or bad; it is who we are. It is the source of our connection with others, our feelings of love and belonging, and our basis for hope and joy. Vulnerability is a risk we take with others, and far from weakness, it is an exercise of courage. We were not made to go it alone, or to be able to handle all that life brings us in isolation. We need the support of others, and help-seeking behavior has been shown to be a component of resiliency and strength. Any effort that mentors and coaches make to communicate and encourage students to seek help and to connect with supportive resources is a plus.

**Learning to lean into discomfort:** While it can seem counterintuitive, our healthiest response to negative and uncomfortable emotions is to lean into them. We must be willing to feel these emotions, understand where they are coming from, discern the beliefs they generate, ascertain how they direct behavior, and consider how to thoughtfully redirect them. When we numb or avoid our negative emotions, we lose our capacity for joy. When we engage with our negative emotions productively, we can learn a great deal about ourselves, and we become able to apply new meaning to the narratives that influence how we see and behave.

**Listening:** While it sounds simple, listening is a skill that must not be overlooked or underestimated. In one of the studies regarding ACEs, 130,000 patients at a doctor visit were given 10 childhood trauma-oriented questions as part of their intake paperwork. They could respond "yes" or "no" to questions such as, "Were your parents ever separated or divorced?" or "Did you live with anyone who was a problem drinker, alcoholic or user of street drugs?" Upon meeting with their doctor, the patients were asked how they felt that any of their identified trauma affected them. The doctors simply listened with care to their answers. The addition of this modest intervention created a 35% decrease in future doctor visits and reduced emergency room visits by 11%. The most significant conclusion of the study was that "listening was found to be a profound form of doing."<sup>26</sup> It should be stated, therefore, that any opportunity to enhance and put into practice one's listening skills is an advantage well taken and a gift to be given.

**Balance:** The Wellness Wheel is an effective tool to help individuals assess the balance of their overall health. Efforts that coaches can make to support health and balance in their players' lives will pay multiple dividends. Potential ideas to consider include team exercise or workout programs, study table participation, social and spiritual development activities, personal awareness and growth seminars, and financial planning guidance and resources.

**Developing personal grit (resilience):** The commonly given advice of "follow your passion" rings true. Research shows that people who are doing something that fits with their personal interests are more satisfied with their work and display better performance.<sup>27</sup> What is problematic is the lack of messaging regarding the amount of work it takes to develop our passion. Few good and satisfying achievements come fast and easy, and rarely are they attained without setbacks and disappointments. Grit involves dogged determination in working toward our passions, and it sees setback and struggle as necessary ingredients to sharpen our skill and perseverance. Ideas

such as “honing a craft” and “deliberate practice” go with grit. Grit is not just about more time practicing, but about better time practicing. Again, Angela Duckworth’s book *Grit* is an excellent resource for coaches to consider how to develop the mindset and behaviors of resilience in their players.

**Creating a “grit culture”:** Culture consists of the shared values and norms of a group of people. As a coach, creating a culture has a great deal to do with continuous communication and messaging around a core set of values, as well as modeling such values by leading with words and actions. To create a “grit culture,” more than half of the vision and messaging must revolve around ideas of teamwork, perseverance, continuous effort and push. Solid and concise sayings or mantras are key in helping players build identity and shape behavior. Forming mantras such as “the championship lifestyle” or basketball legend John Wooden’s “success is never final, and failure is never fatal” help sustain focus and provide a common language to challenge one another and hold each other accountable.

**Utilizing college or university resources:** A college or university may be the only place where the multiple resources that are available to support and strengthen a person all exist in one setting. Resources include academic support, counseling, career services, disability services, multicultural engagement, spiritual development, leadership training, health resources, campus activities and programming, clubs and organizations, and more. The value of taking advantage of the important resources available to the student must be emphasized. Coaches can play a significant role in helping their players understand, assess and pursue them.

**Building a supportive team:** Building a sense of community and connection is important to engagement. The esports coach is part of the player’s community and can evaluate the level of each player’s engagement. Coaches have an opportunity to build real-life relationships among the team members by facilitating trust, encouraging social interaction and interdependence among players, and establishing team culture and values.

## An esports gamer’s perspective

As a self-professed nongamer who was alive when the very first video game, Pong, was introduced in 1972, I would also like to offer Zolton Andrejkovics’ book, *The Invisible Game: Mindset of a Winning Team*, as a reference.<sup>28</sup> I recommend it because as an insider to the online gaming world, he upholds values for esports players and programs that are consistent with the mental health directions I offer in this chapter. He also provides sound ideas specific to esports team and player development. He emphasizes patience and practice while working with new esports teams, the importance of players setting goals that are attractive and enduring, the creation of a common team goal, stubborn perseverance (resilience), mental preparation and effective practicing, tactics and strategies to win a match, and attention to self.

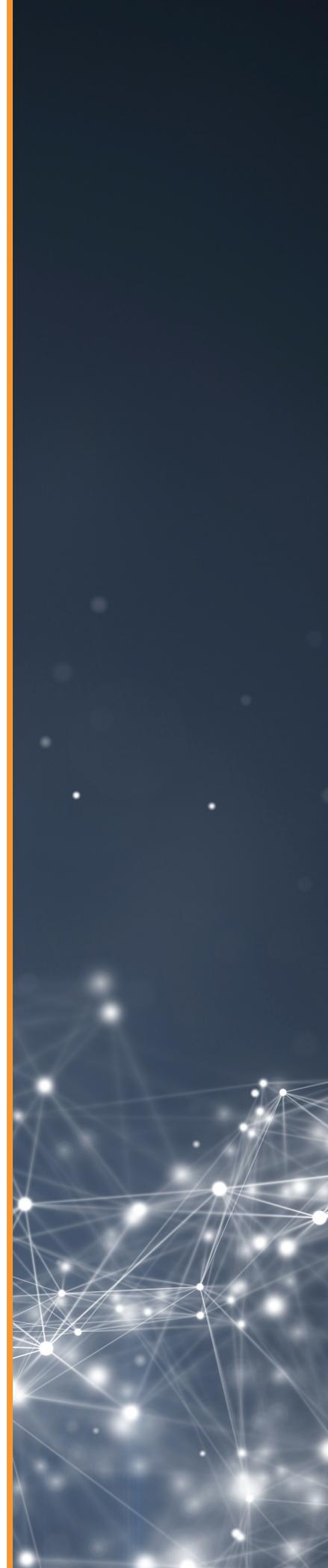
## Conclusion

The expansion of esports into the college realm presents an exciting opportunity for players and universities alike. It recognizes and advances the skill of these gifted players, and provides them an opportunity to further grow and develop through all that the academic community has to offer. The unique relationships of player, coach and team gives further ascent to personal development, leadership and followership skills, and growth through mentoring. The esports coach is in a great position to help guide these young men and women, and to help them advance toward their personal best during their college years.

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# Chapter 8: Maximizing Performance: Fitness Training for Esports Athletes

By Ashley Van Gorp, Grand View University, Iowa

A considerable amount of time is given to individual play when becoming a high-level esports player. Time demands within the sport only increase when given the opportunity to participate on an organized team at the collegiate, semi-pro or professional level. How can one continue to improve as a player when balancing team scrimmages, events, relationships, schoolwork, jobs, etc.?

One solution is powering the human brain through physical activity. Exercise improves brain cognition, increases focus, releases the “feel good” hormones and endorphins, improves mind clarification, helps de-stress, and improves physique, just to name a few benefits. Incorporating an exercise program seems imperative for a top athlete and program, as excessive screen time plays a negative role when attempting to achieve a high level of mental focus, problem-solving skills and dexterity.

## Building mental toughness

An esports athlete needs to be mentally tough. Similar to a race car driver, the ability to sit for an extended period of time and perform at a high level is not just a rite of passage, it is a mandate. The collegiate players are asked to have extreme focus on esports, but as collegiate athletes, their participation is dependent on academic success. Learning to be mentally tough in team workouts not only correlates to healthier bodies and bonded teams, but also teaches the athletes how to grind through matches and find their “second gear.” Grand View University esports has incorporated team fitness classes into players’ weekly schedules, allowing concentrated time away from school and gaming. These workouts have resulted in improved gaming performance and healthier bodies.

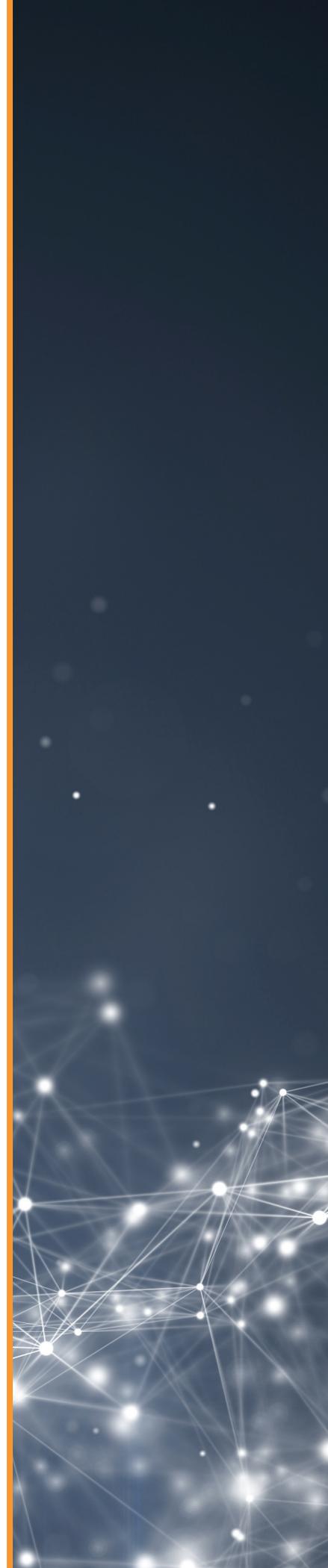
## Benefits of exercise for esports athletes

Although each individual is impacted by exercise differently, research has shown that some benefits are consistent across the spectrum. Exercise strengthens the heart and body musculature, strengthens bone density, improves the cardiorespiratory system, regulates blood sugar, flushes out toxins, regulates blood pressure and prevents a variety of diseases. After signing a major contract, many professional athletes from the major sports hire two people: a personal chef and a personal trainer. Those who are serious about their sport are looking to gain that competitive edge, and overall health is oftentimes the missing ingredient.

Good overall health is especially important in a sport where you spend large amounts of time sitting, which causes some of the body’s musculature to shorten. One area in particular is the hip flexors, which can lead to problems in other body joints such as hips, knees, ankles, wrists and spine. Sitting plays a significant role in decreasing energy, slowing down metabolism, elevating cholesterol levels, causing poor posture, increasing blood pressure, and causing a higher risk for developing diseases.

The answer is exercise. Exercise will have a reverse effect on all the factors mentioned above. A program targeting areas specific to an esports athlete can have the greatest results. In our esports fitness classes at Grand View, the emphasis has been on lengthening muscles, correcting posture, increasing the range of motion within joints, relieving stress, strengthening muscles, increasing the brain-body connection, and building team cohesiveness, which is the best part.

In each class, at least one team-building activity is incorporated. Having a scheduled workout time to socialize with your peers can be fun, but adding games involving physical activity be-



comes challenging and builds unity. A special bond is formed when a difficult workout or task is completed together as a group. Playing exercise tic-tac-toe has definitely become a favorite with the Grand View University esports team.

An exercise program for esports athletes should be flexible and coordinate with their unique schedules, such as a big tournament or finals week. In such cases, it might be more productive to have a meditative yoga class, rather than an intense, muscle-building workout. At Grand View University, the schedule varies from week to week incorporating yoga, Pilates, strength training or cardiovascular training. The exercise regimen should depend on the needs of the athletes, which is why it is extremely beneficial to utilize an experienced trainer who understands all divisions of wellness. Whether or not a team participates in strength, cardio or yoga sessions, mind-body connection activities should always be integrated. Often, this will include hand-eye coordination by doing movements that train the brain's reaction time.

## **Nutrition**

For the general population, and especially for gamers, the daily diet consists mainly of processed food, due to the convenience of grab-and-go packaged foods. Some might question the value of nutrition for an esports athlete, but food fuels our bodies. The fuel a race car uses has a tremendous impact on performance, and it is no different in the human body. Fueling the body with healthy foods will directly impact one's ability to perform at a high level. When designing an exercise program, discussion on the effects of food choices should occur. Strict meal plans, counting calories or monitoring macronutrients are not necessary to enforce, rather, discussing healthy food options is likely to be more effective. Any program is only as effective as the individual, so this approach allows each person to determine their commitment level to fueling their body so customized programs can be created. The importance of staying hydrated and consuming water throughout the day should also be emphasized, especially when workouts have been incorporated into the routine.

## **Types of workouts**

Workouts that combine strength and cardiovascular training appear to have a greater impact on the esports athlete, stretching the mental and physical capacities of the individual. Repeating rigorous activity builds endurance and directly impacts drive and focus when gaming. There is a unique sense of accomplishment felt after a hard, strenuous workout that is not experienced elsewhere. One can't help but have a better mood and gain confidence when pushing one's body to its limits. The drop in blood pressure and heart rate naturally de-stresses the body and improves mental focus. This is important when one is dealing with the tensions of school and possible personal issues. The student-athlete's attention span will likely increase in the classroom and while doing homework, resulting in improved academic success. Academic success can play a significant role in a player's confidence and in eliminating stress.

## **Esports workouts at Grand View**

It is fascinating how exercise can affect the brain and impact the mental health of the individual. When fitness classes were first introduced to the Grand View University esports team, anxiety and uncertainty became apparent as many were entering unknown territory. Of course, there was soreness and complaining, but after just a few sessions, attitudes visibly changed. Players were encouraging one another as they experienced intense challenges. The sense of accomplishment at the end of each session provided an exhilarating feeling. Weekly schedules soon included exercise classes. Providing a space to socialize with teammates away from the game, while being able to improve skills that will directly impact player performance, is a perfect combination.

Once a routine of making healthy decisions is formed, improved motivation and self-esteem are natural byproducts, especially when one experiences a physical change. Once the team members had a couple of months of workouts under their belts, exercising became addictive and players wanted to do more and hoped to experience greater effects. A handful of team members even began doing extra workouts in their free time. Exercise did wonders for the team's attitude, focus and ambition.

## Competitive advantage

It is no secret that anyone who exercises will experience health benefits, but the opportunity to improve one's gaming performance should be an added incentive. The ability to handle stress and high-tension situations is essential to an esports athlete. As an esports fitness coach, I intentionally design exercises that use fast-twitch muscle fibers, more specifically known as Type 2 muscle fibers. The purpose is to make the athlete's mind-body connection become significantly quicker. By increasing the mind-body muscular connection, athletes will have faster reaction times, an advantage when gaming.

For many of the major sports, fitness and strength training for athletes has become an expectation, rather than an exception. Since esports is still in its infancy stage, fitness training has yet to become an expectation that provides opportunities for athletes to see tremendous growth over their opponents. Recent research reveals that elite esports athletes are becoming much more like the athletes in major sports, practicing on average 5.28 hours, with 1.08 hours of that time spent exercising (Acer, 2019). The elite-level player understands that a healthier body creates a clearer mind. It has become so popular that many elite esports athletes have become trainers themselves. It is becoming more common that collegiate and high school program leaders believe that esports teams should exercise regularly.

As programs look to maximize their potential and gain an advantage over their competition, a fitness program should be incorporated into weekly routines. Emphasis should be placed on training the fast-twitch muscle fibers that can increase the brain-body connection. The athletes should see an improvement in brain cognition, focus, reaction time and team cohesiveness. Clearly, the impact goes far beyond esports and into the overall well-being of the individual. If nothing else, establishing an expectation and routine now will plant a seed for players to live healthier and more productive lives. When it comes to esports fitness programs, if you are not an early adopter, you will just be trying to catch up.

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