

A Members-Only Report

Esports – A K12 Introduction

Launching an Esports program offers new opportunities to expand student engagement and connect students to new opportunities to build their leadership and teamwork skills. A successful program launch will leverage a solid plan and cross organizational commitment. Addressing key issues in the district's plan will support a positive experience for students, staff, and spectators.

Background: What is Esports?

Schools across the country are introducing Esports teams and competitions to their extracurricular activities. Esports, or electronic sports, brings team video game playing into the realm of competitive sports. Esports teams function similarly to physical sports teams leveraging collaboration, communication and teamwork in esports competitions against other schools. Like traditional sports, esports also has a path to college competition and professional level competition. Esports competitions can be watched in person and online by spectators. Students competing in an Esports program meet and train regularly, have a coach, and develop strategic and tactical approaches to winning in their chosen sport.

Starting an Esports Program

New Esports programs don't start overnight. They use a combination of planning and a strong champion to support the program's implementation. The development of an esports program requires a plan that considers and addresses the following:

- Scope of the program -
 - Will competition be between schools within the district, between districts, or regional?
 - What age levels will participate?
 - What games will be played?

- Leadership of the program who is interested in coordinating the program
- Vision and values what are the expectations of participants? What should students learn through their participation? For example sense of community, leadership skills, STEM engagement, etc.
- **Goals** Define your short term and long term goals for the Esports program. Start small but think big. Start small and grow your program. It is ok to start small with a team and a single competitive event in the first year. What is the ultimate goal of the program?
- Student Data Privacy- Make sure your plan encompasses requirements for student data privacy. Like in physical sports programs, students will be publicly visible when participating in Esports. What data can be shared? What disclosure agreements need to be in place to launch the program?
- Equity and Inclusion- Plan for inclusion and Title IX and follow procedures for Title IX.
- Sustainable budget and financial plan Seek out sponsorship opportunities. Sponsorships can be essential in ensuring the Esports program's sustainability. Carefully research and understand the district policies and procedures for team and event sponsorship.
- Leverage students in the development of the Esports program. Student leadership councils, computer science club members, cybersecurity club members, and even the cheerleading squad can contribute to the design and launch of the program. Think inclusively about engaging students.

Launching an Esports program is, in many ways, no different than launching a new competitive physical sports program. The program must be stood up and designed to be sustainable. This includes planning for training, equipment, and refreshing

Curriculum and Coaching Resources

Curriculum planning and leadership development should be heavily integrated into the Esports program. This is not just a technology and a game; it is a complete coaching experience for participants. Using a structured approach can help improve students' ingame performance and support Esports coaches in bringing out the best in students both on the virtual field and offline. Multiple academies offer coaching certifications and/or curricula for students, and look to your state, county, or region for recommendations on coaching resources and required certifications.

Equipment Requirements

Equipment is a critical component of providing a quality Esports experience. Like physical sports equipment, Esports equipment needs to be maintained in top-of-the-line working conditions, and equipment quality can significantly impact competitiveness. Esports equipment ages out quickly.

It is essential to establish a refresh cycle for Esports equipment. While CoSN equipment replacement management recommendations <insert link> consider a 5-year life cycle the norm for desktop computing equipment, this would be an inadequate refresh cycle for Esports desktops. The refresh cycle on these devices should be between two and three years maximum. However, the refresh cycle will depend on the game choices and it is recommended that technical requirements be aligned to support games played within the team. Remember to plan in advance for both funding of the refresh cycle and ordering, as supply chain challenges can make it difficult to obtain high-end equipment on demand.

In addition to the equipment for the gamers, the plan for equipment should also consider storage needs for data storage. Make sure to determine the capacity of data storage services the Esports program will require and determine if that would be best fulfilled with on premises or cloud storage.

While it may be tempting to consider a "bring your own console" approach, this can raise significant concerns about equity of access to participate in Esports and equity of equipment regardless of socio-economic status. Additionally, bring your own approaches need to be reviewed in terms of compliance with school district policies.

Network Requirements

Esports are very dependent upon high availability and high speed internet connectivity. Schools developing an Esports program need to plan for supporting a high speed network that can provide access and optimal conditions for participants/competitors. Additionally, schools need to consider the role of commentators and the spectator experience. Will they support a virtual grandstand? Commentators will need network capability to provide real time commentary. Spectators will also want to watch the competition. It is crucial to provide a quality spectator experience without disrupting the connectivity speed necessary to maintain students' ability to compete in the game.

Physical Space Requirements

Esports also require physical locations in which to operate, and their physical locations fall outside the standard classroom space requirements. Just as athletic sports programs require specific spaces for participants and spectators, and specific physical equipment (mats, dugouts, etc.) for participants, Esports programs have their own requirements.

Participants will need spaces large enough to accommodate ergonomic desks and chairs that meet various physical body type needs and offer adequate physical space, so players aren't crowded and aren't easily interrupted during play. Ideally, this is a dedicated play space, facility or arena specific to Esports.

Spectators' physical needs also should be considered. They may need large screens for viewing the action, or a separate physical room for viewing so they don't crowd the players or interrupt gameplay.

A physical security and ergonomics review of the location(s) should be conducted to ensure safety for players and spectators.

Security Requirements

Security requirements and considerations should be built into the planning and design of an Esports program upfront. A well-designed Esports setup should include attention to the following components.

- Network segregation The Esports systems should be set up on their own VLAN; they should not be operating on the same network segment as administrative systems (payroll, HR, student information systems), nor should they be operating on the same VLAN as classroom systems. This ensures that the network utilization demands of the Esports systems do not negatively impact daily operations.
- Firewall and Content Filtering Esports systems should be protected by the school district firewalls and content filtering systems; however, specific rules for these systems will need to be made so that the approved games run correctly. It is important to correctly configure and test those rules to ensure that the devices have as much protection as possible while still allowing games to function correctly.
- Virtual Security Have a clear plan for handling security on the virtual components of the Esports program. When streaming and commentating on live programs, consider if you're going to stream live or build in a delay. Delays are highly recommended to allow a few seconds to shut down the feed if an issue occurs during the game. Also, plan for how to handle spectator feedback and comments in the live stream. Are these allowed? If so, are they curated or monitored? What are the rules and guidelines for spectators providing feedback?
- Incident response Review and update the district's cybersecurity incident response process to ensure that it can encompass issues that may arise during an Esports event. Conduct a tabletop incident response event focused on Esports as a training exercise and make sure there is an established and agreed upon RACI chart articulating the roles and responsibilities of each individual involved in the Esports program in the event of a cyber incident.

Conclusion

Launching an Esports program offers new opportunities to expand student engagement and connect students to new opportunities to build their leadership and teamwork skills. A successful program launch will leverage a solid plan and cross organizational commitment. Addressing key issues identified above in the district's plan will support a positive experience for students, staff, and spectators.

About CoSN:

CoSN, the national association of school system technology leaders, believes that technology is an essential component of learning today, and is deeply committed to the use and distribution of technology in school systems. However, all technologies must be properly assessed for design and appropriateness in the modern classroom. Educators and companies alike must recognize and uphold their responsibilities to protect the privacy of student data.

Working together, educators and the private sector serve millions of students by providing them with the rich digital learning experiences and access needed to succeed in college, work and life. That partnership is critical to ensuring that students will have the tools necessary for success in the 21st century.

Special thanks to CoSN's Networking & Systems Design Advisory, lead by project Director Amy McLaughlin, CETL

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