L·E·A·P
Leadership. Education. Achievement. Personal Growth.

LEAP Report – Competition Engagement (HS)
Competitive Event Leadership Experiences

Video Game Design
Competitive Event

2088-1
Participant/Team ID#

The Student Leadership Challenge*		Leadership Experiences
Practices	**Behaviors**	
✔ Model the Way	Follow through on promises and commitments	- "Before beginning the video game design process, we set goals for the team in order to ensure that we would create a successful final product. These goals included: working towards a unified goal, respecting everyone's opinions, and promising to not shy away from challenges. " - " To ensure that each member would follow through on the goals that we set, we decided that every member would be held accountable to these goals. Each member would monitor their peers to ensure that they were always being the best teammates that they could be, even when there is tension." - "Members who have made video games in the past provided guidance in the game development process, and took leadership roles throughout."
	Set a personal example through actions	
	Align others with principles and standards	
	Seek feedback about impact of actions	
	Make sure teammates support common values	
	Talk about values and principles	
✔ Inspire a Shared Vision	Look ahead and communicate future ideas	- "Conducted research on what aspects made many retro video games so successful, to discover what to implement into our game. Concurrently, we wanted to remake the retro video game, to put a modern twist on the gems of the past." - "In our video game, we collaborated to create a unified theme throughout the video game. Different members shared which aspects of a retro video game they wanted to implement, and we voted at the end to fairly come to a conclusion."
	Describe ideal capabilities	
	Talk about how future could be improved	
	Be upbeat and positive	
	Communicate purpose and meaning	
	Show others how their interests can be realized	
✔ Challenge the Process	Challenge current skills and abilities	- "After the individual plan was decided upon as a group, we split up the work to proceed on the project in the most efficient and effective manner." - "Each member was designated as a lead for a different aspect of the website, which gave members the opportunity to be creative and take initiative with their part of the game." - "Throughout the entire design process, we had checkpoints where each Lead would bring in their work and present it to the rest of the team. This way, we could provide constructive criticism to improve the overall quality of the game." - "While we could have used pre-made sprites for the video game, we wanted to challenge ourselves to create our own in order to have full customization over the visuals."
	Break projects into smaller do-able portions	
	Search for innovative ways to improve	
	Ask “What can we learn?”	
	Take initiative in experimenting	
	Help others try out new ideas	
✔ Enable Others to Act	Foster cooperative relationships with others	- "In a group of 5 people, conflicting opinions and ideas were inevitable. However, we made sure to always remain focused on a unified goal by treating every member as an equal. Each part of the project was treated with the same value, and everyone's input mattered." - "New ideas were always considered, and we even discovered that some of the most unique and creative ideas were formulated as a result of this process. - "Different members were in charge of different aspects of the website. We had the following leadership roles on our team: Lead Game Developer, Back-End Coder, Animation Lead, Graphics Designer, and Content Writer." - "Each member was given full flexibility to experiment with their duties, in order to put together a quality video game."
	Actively listen to diverse viewpoints	
	Treat others with respect	
	Support the decisions other people make	
	Give people freedom and choice	
	Provide leadership opportunities for others	
✔ Encourage the Heart	Praise people	- "Since different members had different abilities with game development and back-end coding, we ensured that every team member would have an important part of the project to be responsible for." - Additionally, those who were not adept at video game development coding were able to improve tremendously over the course of the project, thanks to our experienced members who took the time to be patient with the younger team members." - "Each member showed commendable growth throughout the course of the project, and the senior members made sure to acknowledge this at every step of the way. After all, learning is the priority in any of these projects." - "Made sure to thank our parents for taking the time to review our game and provide feedback."
	Encourage others	
	Express appreciation for people’s contributions	
	Publicly recognize alignment with values	
	Celebrate accomplishments	
	Creatively recognize people’s contributions	

LEAP Report – Competition Engagement (HS)
General Leadership Experiences

Video Game Design

Competitive Event

2088-1

Participant/Team ID#

Leadership Categories	Leadership Experiences
✔ Leadership Roles	- "Carried out all duties and commitments to North Creek High School TSA, serving as the Co-Presidents and Founders of the chapter. This involved preparing, planning logistics, and advising our members to sufficiently prepare them for success at the State level. Doubled membership to over 60 members." - "Being seniors, we were able to provide guidance to the underclassmen in the club. This involved giving tips/advice for presenting to judges, answering interview questions, and specifics regarding events." - "By providing small leadership tasks at club meetings for underclassmen, we were able to build a community of motivated and excited TSA students."
✔ Community Service/ Volunteer Experiences	- "Through continuous engagement with the National Honor Society Organization, we were able to help our local community out by volunteering at many events. This was also a great chance for the team to bond together." - "Those who attended the Fall Leadership conference volunteered to help out with the set-up and clean-up at the Fall Leadership Conference. While we were assisting the State officer team, we were able to learn a lot from them regarding tips and tricks to pass onto the members of our chapter." - "Volunteered in youth leadership/development program for students ages 8-16." - "Volunteered at local Code Day events." - "Volunteered time to developing/running a website for a local Seattle start-up technology company. Learnt about the website development process and also real-world skills that involved meeting deadlines and making industry connections."
✔ Leadership Development	- "As North Creek High School TSA started up in the Fall, there were many new faces on the executive board team. Many individuals had conflicting viewpoints, and wanted to take as many leadership opportunities as possible. As Co-Presidents, we like to see the team take initiative, but noticed a sense of unhealthy competition growing. We took it upon ourselves to shift the team culture to prioritize teamwork and friendship. By getting each of the board members to bond with each other outside of TSA, we were able to create a much stronger team that was working towards one ultimate goal: the success of the chapter." - "Was able to improve leadership skills by leading a 5-day cultural camp with peers." - "Attended leadership development workshops at an FBLA (Future Business Leaders of America) conference." - "Attended leadership development workshops at a HOSA (Health Occupation Students of America) conference."
✔ College Career Planning	- "Job-shadowed at technology companies including Microsoft and Philips to get a better understanding of what specific STEM careers entailed." - "Toured the Computer Science and Engineering (CSE) Department at the University of Washington." - "Learnt how to develop iOS mobile applications using the Swift programming language." - "Toured the Computer Science and Engineering (CSE) Department at the University of Illinois at Urbana-Champaign." - "Advised younger family-friends on the college admissions process in order to give them tips and tricks to use in the future."

The Student Leadership Challenge* Practices and Behaviors	
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Encourage the Heart	Praise people
	Encourage others
	Express appreciation for people’s contributions
	Publicly recognize alignment with values
	Celebrate accomplishments
	Creatively recognize people’s contributions

STUDENT COPYRIGHT CHECKLIST

(for students to complete and advisors to verify)

1) **Does your solution to the competitive event integrate any music?** ☉ YES ○ NO

   If NO, go to question 2.

   If YES, is the music copyrighted? ☐ YES ☉ NO

   If YES, move to question 1A. If NO, move to question 1B.

   1A) Have you asked for author permission to use the music in your solution and included that permission (letter/form) in your documentation? If YES, move to question 2. If NO, ask for permission (OR use royalty free/your own original music) and if permission is granted, include the permission in your documentation.

   1B) Is the music royalty free, or did you create the music yourself? If YES, cite the royalty free music OR your original music properly in your documentation.

CHAPTER ADVISOR: Sign below if your student has integrated any music into his/her competitive event solution.

I, _____ (chapter advisor), have checked my student's solution and confirm that the use of music is done so with proper permission and is cited correctly in the student's documentation.

2) Does your solution to the competitive event integrate any graphics? ☉ YES ○ NO

   If NO, go to question 3.

   If YES, is the graphic copyrighted, registered and/or trademarked? ☐ YES ☉ NO

   If YES, move to question 2A. If NO, move to question 2B.

   2A) Have you asked for author permission to use the graphic in your solution and included that permission (letter/form) in your documentation? If YES, move to question 3. If NO, ask for permission (OR use royalty free/your own original graphic) and if permission is granted, include the permission in your documentation.

   2B) Is the graphic royalty free, or did you create your own graphic? If YES, cite the royalty free graphic OR your own original graphic properly in your documentation.

CHAPTER ADVISOR: Sign below if your student has integrated any graphics into his/her competitive event solution.

I, _____ (chapter advisor), have checked my student's solution and confirm that the use of graphics is done so with proper permission and is cited correctly in the student's documentation.

3) Does your solution to the competitive event use another's thoughts or research? ☐ YES ☉ NO

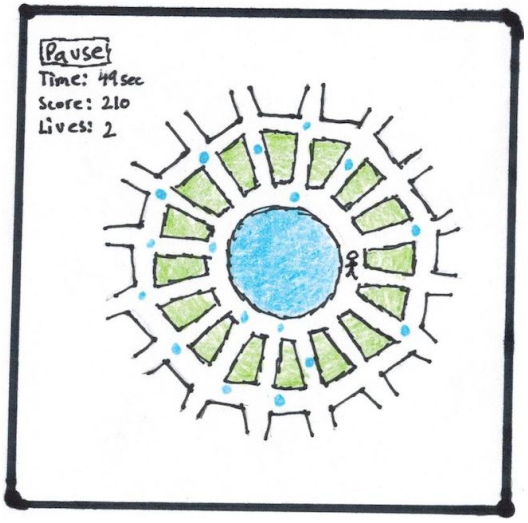
   If NO, this is the end of the checklist.

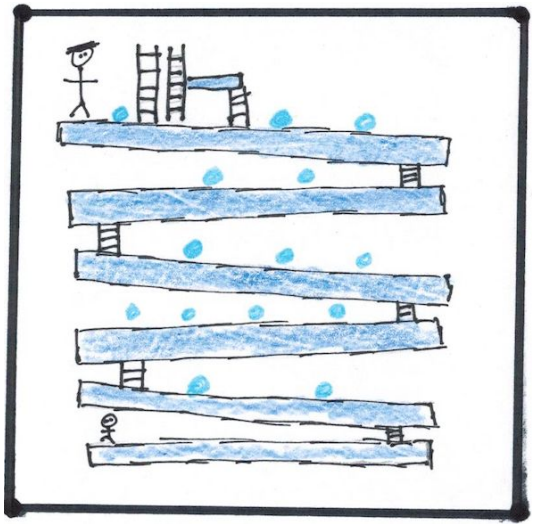
   If YES, have you properly cited other's thoughts or research in your documentation? If YES, this is the end of the checklist.

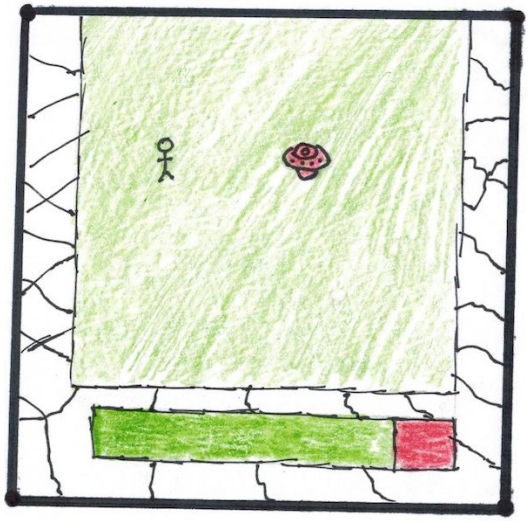
   If NO, properly cite the thoughts/research of others in your documentation.

CHAPTER ADVISOR: Sign below if your student has integrated any thoughts/research of others into his/her competitive event solution.

I, _____ (chapter advisor), have checked my student's solution and confirm that the use of the thoughts/research of others is done so with proper permission and is cited correctly in the student's documentation.







Leaderboard

Place	Name	Score
1	John	8010
2	Martha	6070
3	Daniel	6040
4	Tom	5180
5	Grace	5010
6	Bob	4990

TSA Video Game Design
SeaTac, Washington 2019

Contents

Purpose and Description of Game

‘Attack the Hack’ is a single player retro style game where users attempt to conquer two normal levels and then a boss level. The premise of the game is that National Technology Student Association’s mainframe database has been hacked, and it is up to the player to advance through each of the levels and over ride the hacker. Each level provides a unique challenge, and is plagued with mini virus. The player has to evade all of the mini viruses and obtain the most amount of coins possible. This will help them achieve a higher score in the final leaderboard. Once they have gotten as many coins as possible in the given time and passed the first two levels, they will encounter the Hacker! The final hacker can be destroyed by repeatedly jumping on him. But the player still has to worry about the mini viruses.

Target Audience

Our game is targeting two main groups: TSA members and retro video game fanatics. Given that the storyline of the video game revolves around a member solving a virus plaguing the TSA State mainframe, we feel that people in the club would be drawn to the video game. Such a plot makes the videogame more relevant to TSA members. We also believe that retro video game fanatics will enjoy this video game. We designed this video game to give the gamer a flashback into the 80s, which many refer to as the Golden Age of gaming. People who enjoy retro video games will instantly recognize the iconic design that is represented throughout the gameplay. With the pixelated sprites and cartoonish cutscenes, this target group will be hooked. However, even if the gamer does not fall under one of our target audiences, we are confident that they will have a blast playing ‘Attack the Hack’. It was intended to be very kid-friendly and simple, meaning that anyone can pick up and play the game without any past gaming experience. This way, ‘Attack the Hack’ can be versatile in terms of appealing to many target audiences.

How to Play

At the start of the game you have three lives. If you lose all three, you are sent back to beginning! Collecting more coins and finishing quicker raises your final score and helps you rise through the ranks on the leaderboard.

Level 1: Collect the Coins

Move around the map of twists and turns to collect all the coins. But be careful! There are countless mini viruses roaming around. If they catch you, you lose a life.

Level 2: Climber

Climb to the top to reach the final level. A mini boss will try to stop you by throwing mini viruses down the ramps. Don't let them hit you or else you will lose a life and be knocked back to the bottom. Falling off the map will result in the automatic loss of all your remaining lives.

Level 3: Boss Battle

Defeat the moving boss virus by continuously jumping on it to deal damage. Jump higher by leaping off of the walls. When its health bar reaches zero, the boss is defeated. Begin hit by one of its projectiles will result in the deduction of a life.

Controls:

W or ↑ = up/jump A or ← = left S or ↓ = down D or → = right	

TECHNOLOGY STUDENT ASSOCIATION PLAN OF WORK

	Date	Task	Time involved	Team member responsible (student initials)	Comments
1.	12 / 07 / 2018	Brainstorm	45 mins	AG	The team met and worked together to brainstorm potential ideas for a TSA related video game.
2.	12 / 09 / 2018	Storyboard	2.5 hours	NJ	Nikhil and Aneesh worked together to draft a holistic storyboard for the path and structure of the game.
3.	12 / 18 / 2018	Game Design	21 hours	RJ	Rishabh, Jeff, and Rishi collaborated using unity to design the actual game according to the parameters of the storyboard
4.	12 / 28 / 2018	Bug Fixes	3 hours	AK	Aneesh and Akash tested the game and used Unity and C# to fix any bugs they discovered
5.	1 / 02 / 2019	Animation	2.5 hours	JW	Jeff and Rishi added animations to the game to aid the aesthetic appeal of the final product.
6.	1 / 13 / 2019	Final Compilation	2 hours	RS	Rishabh and Nikhil worked together to compile the animations with the functional game and draft the competition version of the game ‘ Attack the Hack ’

Advisor signature _____

High School Student Pilot Project - Career Research

Event: Video Game Design

Akash Gujjar

Career 1: Animator

A prominent industry oriented career related to our Video Game is an Animator. Animators typically work on the sets of video production projects. People who work as an industrial or corporate animator often times pursue degrees in the Fine Arts and Graphic Design. Along with this, they obtain certifications in Computer Animation from technical institutes. Typically, an animator can make a salary between 40k and 120k annually. However, the median salary is around 65k. Potential employers include Pixar Animation Studio and Epic Games. The typical role of an animator includes using an array of softwares to create 2 and 3 dimensional animations based off of a storyboard. This career would be suitable to me because of my interest in the STEM field. My appreciation for art along with my passion for technology would blend well as an Animator.

Career 2: Graphic Designer

One of the many career options associated with creating a Video Game is a Graphic Designer. Graphic Designers are typically employed by software and internet companies and are freelanced to other corporations to work on specific projects. Typically, Graphic Designer's pursue a degree in Graphic Design from reputed art schools. However, they can also obtain additional qualifications form technical institutes. The typical salary for a college graduate Graphic Designer is around 47k annually. However, there is room for upward advancement and they can reach a salary of around 87k per year. The job of a Graphic Designer is to use digital softwares to design visuals for advertisements and products. This would be a really appealing career to me because of interests in both art and software.

Jeffrey Wu

Career 1: Game Designer

Following the creation of a Video Game, a wide variety of career paths can be followed. One of these careers is a game designer. Game designers seek to design multitudes of games on a variety of formats, such as on mobile devices, computers, and consoles. They create games that can attract a targeted audiences attention through their unique concepts, characters, and game play. In order to develop the necessary skill to enter this field of work, people generally seek degrees in video game design. Some skills game designers should possess after schooling or training are creativity, knowledge of popular types of games, and proficiency in programming.

Game designer salaries usually start around $50k and can eventually reach $100k after many years of work and experience in the field. Potential employers of game

designers are Nintendo and Microsoft. The career of game designer would appeal to me due to large parts of my childhood being surrounded by video games.

Career 2: Instructional Technology Specialist

A career path that falls in parallel with the Video Game Design project is an instructional technologist specialist. People who decide to pursue this career often attain degrees in education technology due to its close correlation with this career. Among the many tasks of a instructional technologist specialist is to find appropriate uses of modern day technology in helping expand the knowledge of people. This can often be seen in schools where instructional technologist specialists utilize computers, both hardware and software, to improve the students' learning experience.

In the United States, salaries for instructional technology specialists can range from around $50k to $70k depending on experience in the field. People in this career can usually find jobs in all schools, ranging from elementary school to universities, because technology is very flexible and can be applied to all levels of learning. Good communication skills as well as being technologically proficient allows instructional technologist specialists to expand on ways to help instruct others. This career is able to appeal to me because of my problem-solving oriented mind and my understanding of technology.

Aneesh Karpoor

Career 1: Computer Engineer

One career that is related to this event is a Computer Engineer. A Computer Engineer is responsible for researching, designing, and testing computer hardware. This includes working with computer chips sensors, circuit boards, keyboards, etc. This career is related to this project as it involves many of the same technical duties that we had to conduct as a part of planning, developing, and testing a video game. A Computer Engineer would be able to create powerful computers that are able to handle demanding video games that are graphics and CPU intensive. To get an entry-level job in this career, one must have at least a bachelor's degree in computer or electrical engineering (both very similar careers). However, a lot of computer engineers prefer to continue their education with a master's degree in order to prepare them for better job growth in the future and also benefits such as a higher starting salary. Computer Engineers tend to advance into business administration after around 8-10 years, as they transition into management jobs with less and less technical jobs, but a heavier focus on leadership. The salary of a Computer Engineer averages at around $110,000, but can vary depending on factors such as education level and years in the position. This career appeals to me because I enjoy working with computers, and more specifically with both hardware and software. Having a solid foundation in these areas makes this a viable future career option for me.

Career 2: Video Game Technician

Another career that is related to this Video Game Design event is a Video Game Technician. A Video Game Technician is responsible for the upkeep, maintenance, and repair of all electronic video game consoles and hardware. This career is similar to our event as both required a similar debugging process in order to fix bugs and glitches within the code. This career mandates a strong understanding of electronics, which can be obtained with a college education. Most Video Game Technicians have at least a Bachelor's degree in Electronic Engineering Technology or a related field. By studying further into computer science and engineering, these employees can be entitled to higher ranking positions and increased salaries. Speaking of salaries, the average salary for a Video Game Technician is around $41,000 per year. This number is increasing annually as the popularity of video games is only increasing, meaning that the demand for maintenance and repair is concurrently increasing. Video Game Technicians are expected to have deep background knowledge of computers, electrical components, circuitry, and mathematics to name a few areas. People who are interested in pursuing a career as a Video Game Technician must not underestimate the knowledge that they need. It is even recommended by experts to gain certification from a professional organization such as the ETA, CETa, or GVT. These will strengthen a prospect's chances at securing a job. Additionally, people must be excellent communicators, and always prioritize the customer experience. Finally, they must be patient and diligent in their work, as they would be dealing with hundreds, if not thousands of dollars of gaming equipment. People who go into this career say that it has been really rewarding and also very fun.

Rishibalaji Srinivasan

Career 1: Audio Engineer

A vast growing career area that is related to Video Game Design is audio engineering. This career can host vocalists, instrumentalists or even composers that are generally technically inclined who also have a sparked interest in video games. Among several aspects of video games, music is generally the field making video games interesting and changes in music prove a significant step ahead in the continuity of the game. Career opportunities in the United States can start at $20,000 and well reach over $100,000 based on the size of the project. However, Video Game Design is only a sliver of the actual scope of Audio engineering. Jobs opportunities can also be in cinema industries, web design, or anything that needs music to provide an interest on the activity. I would be very intrigued in this career because of my passion for STEM and music. This career would effectively mix both my interests.

Career 2: Program Manager

A vast and arduous career field that also meets the scope of the Video Game Design project is Program Manager. A program manager acts as a coordinator between multiple projects at a business or organization to be sure their benefiting each other and

aligning with overall business goals. This career requires significant leadership skills and quality communication skills to lead the developers while also maintaining a strong relationship with them. In the United States, program managers can earn from $120,000 to $200,000 based on the client company. A program manager can also work in several different jobs like Information Technology(IT), Telecommunications, and other service based jobs. I would pursue a career as a program manager because of my leadership experiences and passion for technology.

Nikhil Jain

Career 1: Level Designer

A major aspect of video game design is level creation. A good game requires excellent level design, which is the job of a level designer. Level designers usually have video game design experience and are creative. To get hired, they are usually experienced and have a portfolio of levels that they have designed for other games. An average level designer will earn around $61,353 per year. However, top-notch level designers can earn $142,889 per year. This career is appealing as level design is one of the most essential pieces of a game. It needs to be able to show the gameplay in a fun and interesting way.

Career 2: Tester

One of the longest parts of making a game is fixing all of the bugs. In more complex games, there are often bugs that are really hard to find, but can break the game. Testers are given the job to search for these glitches and exploit them for the developers. Testers are very disciplined and need to be very focused, as many glitches in games are very complicated and hard to find. Usually, testers are payed around $55,815 per year. Testers need to be sociable and not afraid to criticize someone, as they need to be able to clearly communicate bugs, and they need to be able to tell the programmers what exactly they have done wrong. This is an interesting job as it might seem like you are just playing a game normally, but it is much more than that. Testers need to be very disciplined and have to be able to find the needle in the haystack of a game.

Rishabh Jain

Career 1: Software Developer

One career that is related to this event is a Software Developer. A Software Developer is tasked with writing all of the code that makes software run on our laptops, tablets, phones, etc. Software Developers are usually required to get at least a bachelor's degree from a four-year university. Software Developers have a wide range of employment opportunities ranging from large companies like Microsoft and Google to small startups such as Fleetzen. The average salary for a Software Developer is about $106,000 annually. The typical duties for a Software Developer include writing code to

make new programs as well as modifying the old code to add new features to old software or to fix bugs in previous versions of the code. This career appeals to me because I enjoy writing code and especially creating new software. Having a passion for this field makes this a good option for my future career.

Career 2: Quality Assurance Engineer

Another Career that is related to this event is that of a Quality Assurance Engineer. Quality Assurance Engineers are usually required to have a four-year college degree in a related major. Quality Assurance Engineers are responsible for reviewing code written by developers and ensuring that there are no bugs before the code goes into production. The average salary for a Quality Assurance Engineer is $63,000 per year. There is a lot of room for upward advancement in this career as Quality Assurance Engineers can often move on to become project leads and work their way up to managerial positions. Potential employers for Quality Assurance Engineers are any technology companies such as Microsoft, Google, Amazon, Apple, etc. This career appeals to me because I enjoy working with code and trying to solve problems. Having a job where I can contribute to creating important software by ensuring that there are no bugs seems appealing to me. My interest in programming combined with my intuition for finding mistakes makes this a great potential career for me.