UC Irvine
2022 Games + Learning + Society Conference Proceedings

Title

Towards a Public Pathway for Careers in Gaming: NYC Youth and Agency

Permalink

https://escholarship.org/uc/item/01v8c13n

Author

Joseph, Barry

Publication Date

2022-09-18

Peer reviewed

Towards a Public Pathway for Careers in Gaming: NYC Youth and Agency

Barry Joseph, Barry Joseph Consulting

1. Abstract

In early 2022, the City College of New York (CCNY) and the NYC Mayor's Office of Media and Entertainment announced a new public pathway to careers in the gaming industries and related fields. This presentation explores some highlights from the 2021 study undertaken for Science and Arts Engagement New York (SAENY), a not for profit, and CCNY to learn from high school-aged youth the role games play in their lives, families and communities. It highlights key lessons learned about youth and games while sharing techniques developed to surface examples of youth agency within gaming ecosystems.

2. Teens, Video Games, and Agency

In 2021 SAENY sought to learn what roles video games play in the lives of NYC teenagers – specifically Black and brown high school students.

I entered the project well aware of what everyone says I was supposed to be watching for: Do video games make teens violent? Are they an addiction distracting them from their studies?

I was also prepared to address more positive topics: Do video games inspire an interest in coding or other STEM topics? Do they teach players how to approach problems?

Both positive and negative topics like these certainly emerged, but when I was listening to the teens, and let them drive the agenda, I found myself asking very different questions based on what they were sharing: How do you use games to manage your emotions? How do games help you to be the person you want to be in the world?

The key difference between what I had originally planned to explore (popular hopes and fears about the impact of games) and my new pivot (what youth are actually thinking and doing) can be summoned up in one word: agency.

A lot is written about how games might be taking agency away from teenagers, doing something to them, whether good or bad. But what I heard instead from 70 teens was how they were in charge, how they used games to take agency in the world around them.

The following research findings reframe youth from being the subjects of gaming's influence to being agents leveraging what games afford. Their actions are not always successful, but when the frame shifted – from what games do **to** teens to what teens do **with** games – a wholly different picture emerged.

Together we explored topics like: how teens use games to shape and express their identity; how they use games in their classrooms and to support their academics studies; how they look to gaming culture for inspiration and career direction; and how young females and people of color respond to the ever-present sexism and racism they encounter in online gaming communities.

3. Methodology

The goal of the study was to understand the role and impact that games, particularly video games, have on the lives of teens living in the New York City communities of Harlem, Upper Manhattan, and the South Bronx. It was envisioned that the information from this study would inform the efforts of City College of New York (CCNY) to recruit students from these communities and, led by the non-profit Science and Arts Engagement New York (SAENY), create public pathways from high school to the city's gaming industry that moved through the college.

The study employed surveys, remote focus groups, and 1:1 interviews. The research findings were also informed by a youth advisory composed of twenty young people who participated in four sessions of an after school program, co-developed and run with the Urban Arts Partnership's School of Interactive Arts. Given the state of the pandemic, everything was done remotely.

Partnering with staff from both CCNY and SAENY, over a five-month period we engaged with NYC high school students (N=70), CCNY college students, (N=109) and educators (N=25).

As we start exploring the findings, please keep in mind the data collection was not designed to be scientific nor comprehensive but illustrative and suggestive. The response rates are often not high enough to represent all of their community. These were not randomly assigned groups; we aimed to balance by gender and reproduce the ethnic make-up of the three geographic communities.

4. Lines of Inquiry

The research activities were designed around two lines of inquiry:

The first line of inquiry was to understand the relationship between video & tabletop games and area high school students. Games of interest included both tabletop (e.g., Chess, dominos, Uno, Yu-Gi-Oh) and digital (e.g., Fortnite, Minecraft) games.

The second line of inquiry was to understand how to connect youth interests with CCNY opportunities while advancing CCNY's ability to leverage gaming opportunities. These could be seen as two sides of the same coin – what youth need to gravitate towards CCNY and what CCNY needs to have in place to attract and retain them.

Each line of inquiry had its own set of guiding questions. The first line of inquiry asked questions like:

- How do youth interact with games and the broader gaming ecosystem?
- What roles do games play in youth's local and online communities? What would youth want to change about gaming in their local and online communities?
- How does their community and cultural background shape how they interface with gaming culture? What would youth like to change about the games they play?

The second line of inquiry asked questions like:

- How do youth understand games' impact as a cultural force and as an economic force?
- How do youth view academic opportunities as a vehicle for them to pursue their interest in gaming and/or their career plans related to gaming or related fields?

5. GAMES THEY PLAY

Youth responded to surveys about games played in the past year. We were surprised to learn that most were playing games not shared by the majority. In fact, only two of those 69 games were played by a majority of the survey respondents (Among Us and Minecraft) (see Table 1). That means most teens were playing games within a small niche.

Table 1
List of the top ten games played. (N=51).

VIDEO GAME	#	%
Among Us	43	84.31%
Minecraft	33	64.71%
Fortnite	21	41.18%
Mario Kart	21	41.18%
Super Smash	21	41.18%
Call of Duty	20	39.22%
Roblox	20	39.22%
Animal Crossing	19	37.25%
Genshin Impact	18	35.29%
Pokemon	18	35.29%

The respondents all engaged in a wide range of meta-gaming activities (like watching gaming videos on YouTube); in fact, the majority of them engaged with most of the activities listed. In other words, while they are playing different video games from one another, they are engaged in the same type of meta-game activities (see Table 2).

Table 2
The vast majority are engaged in the same video game-related activities. (N=51).

Activity	#	%		Activity	#	%
Watched videos on YouTube	49	96.08%		Viewed video game visual art	27	52.94%
Talked about games on Discord	38	74.51%		Watched videos on game design	26	50.98%
Listened to video game music	35	68.63%		Designed video games	25	49.02%
Watched recorded gameplays/walkthroughs	35	68.63%		Read gaming news	23	45.10%
Talked about games (in person)	34	66.67%		Made video game visual art	20	39.22%
Watched Let's Play videos	33	64.71%		Participated in a particular game's fan community	20	39.22%
Searched for tips and tricks	32	62.75%		Watched eSports or other video game competitions	17	33.33%
Watched video game news	31	60.78%		Made a game-related purchase not in a game	14	27.45%
Watched videos on Twitch	31	60.78%		Made video game music	10	19.61%
Watched live streams of gameplays	30	58.82%		Competed in eSports or other competitions	5	9.80%

6. WHAT THEY SAY WHEN PLAYING GAMES

As we were preparing research instruments, I came across a quote in a New York Times' interview with Richard Tyler Blevins, known as Ninja, an American Twitch streamer, YouTuber, and professional gamer. Blevins said: "You want to know who your kid is? Listen to [them] when [they're] playing video games when [they] think you're not." Perhaps nothing creates more anxiety for adults than imagining what teens are up to when no one is watching. We made sure to work this into the program.

We asked teens to share sounds they make while playing video games when they thought their caregivers were not listening; their responses were turned into comic strips (by us) for discussion and analysis.

We tagged their responses by both tone (Aggressive/Mad/Negative vs. Friendly/Inquisitive) and audience (Opponents, Teammates/Friends, the Game, Themselves). When it came to tone, 16 of the 25 comments (64%) were negative while the rest (34%) were positive. When it came to audience, 12 of the 30 responses were directed towards themselves (40%). The same number were directed towards other players.

We combined those two into an X/Y axis. Every box was filled as there was at least one comment for every possible combination. But the largest number of comments clearly fell into one box: negative comments directed towards themselves (see Figure 1).
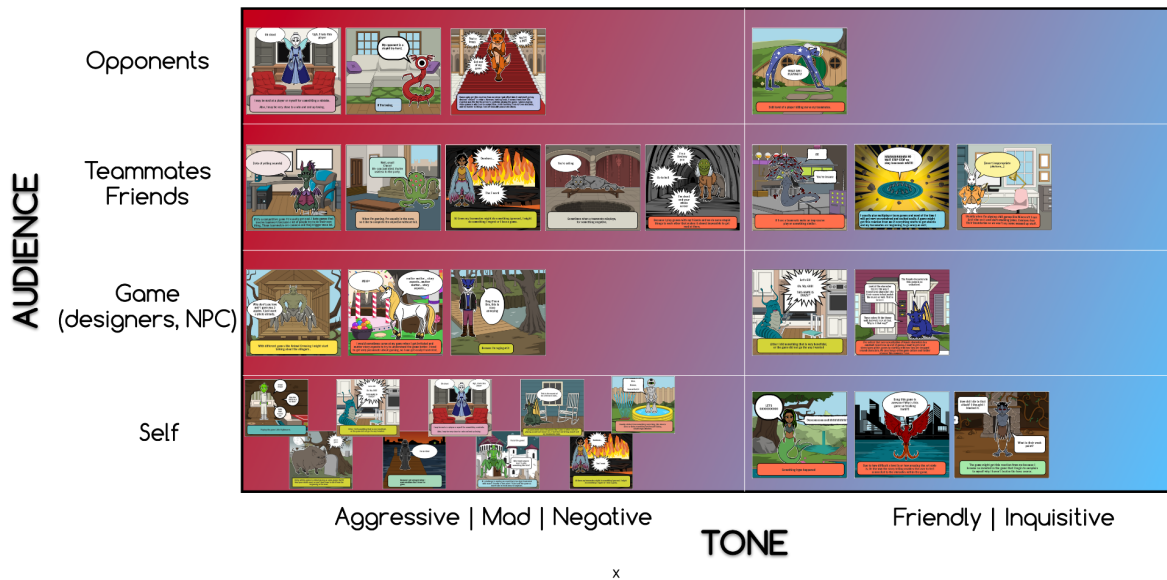

Figure 1
The lower left box shows most comments were negative and towards themselves.

This led to an exploration about how youth use games to manage their feelings, often with intention. If they are feeling upset, they might choose to avoid highly competitive games. If they are feeling down, they might play a quirky game to perk themselves up.

Much of this, if not all, was occurring outside the awareness of the caregivers around them (see figures 2).

Figures 2
Examples of comments made when playing games.

Our conversation about the sounds they make when playing games took us in three directions. First, we explored what they gained from gaming, as they raised topics like freedom to express oneself, inspiration to create, and crucial life lessons.

[block quote] I used to play a lot of *Kingdom Hearts*, and there's a lot of themes of friendships in there, right? This may sound corny, but like, that really helped me to really grab the concept of friendships and how important that is. [block quote]

[block quote] For me games bring out determination… In games like *Celeste* or *Hollow Knight*, you keep dying and dying and then I always got to bounce back. And then it's fun. It's really fun struggling. Ah, that sounds really weird to say! But it's fun to struggle and then you do well. [block quote]

Second, they explored the relationship between games and their emotions.

[block quote] I practically use games 24/7 to manage my emotional life. [block quote]

[block quote] Some games just make me so happy; those are the ones I want to play the most. [block quote]

[block quote] Is very noticeable when you improve and that feeling is amazing. [block quote]

[block quote] Some story games highlight insecurities in myself and have moving emotional narratives that provide insight into what I may be dealing with outside of the game. [block quote]

Finally, they spoke about games and violence (or aggression)

[block quote] Games are an outlet for many to vent or let out frustration… It gives us a reason/opportunity to release it. [block quote]

[block quote] I don't play those kinds of games for long because I feel like it damages me. [block quote]

7. How Youth Use Games To Be Who They Want to Be In The World

To better understand the personal narratives youth construct using games, we asked youth the following question: ***How do games help you be who you want to be in the world?***

They spoke about using games to overcome obstacles, like an introvert using games to make friends. They spoke about using games to give them motivation and to pursue careers, like as a physician's assistant in an emergency room or work in a STEM field. They spoke about skills it helped them to learn, such as critical thinking, problem solving, and creativity.

The following are just a few examples of the many and diverse ways youth reported using games:

[block quote] Games are… where I learned how to think rationally before I act, how to interact socially with others, and ultimately builds both my mentality and physicality. [block quote]

[block quote] Gaming has helped me be who I want to be by giving me the 'drive' to do the best that I can. [block quote]

[block quote] Games… have offered [me] a huge stepping stone in life that has made me who I am… [block quote]

To explore the same concept through a more constructivist approach, we invited youth to build what we termed Social Mechanic Ecosystems. To build their ecosystem, we asked them to pick one game they play and write its name in the middle circle. Next, they were asked to consider all the different things they do related to the game OTHER than play it. Each of those activities occupies one of the satellite circles, identifying what they were doing, where they were doing it, who it connected them with, and the goal of that activity. Each satellite circle then gets one word or phrase to describe what roles this activity allows them to occupy in the world. Finally,

looking at all of the roles in a holistic way, they are asked to fill out the "Me & My Game" section" to learn if there is a narrative that emerges about how this game supports them to be or do something in the world.

For example, in this one below, the student chose the game *Legend of Zelda: Breath of the Wild* (*Zelda*). *Zelda* helps this student be an artist (drawing *Zelda*-related art) and a singer (of *Zelda* melodies), a consumer of *Zelda* gameplay videos and *Zelda*-music, and a "learner" of videos that use *Zelda* to teach game design. In "Me & My Game," in the lower right, this teen summarizes this all by saying *Zelda* helps them be someone who can take inspiration, wonder and learning from one source then apply it somewhere else in order to better themselves and others.
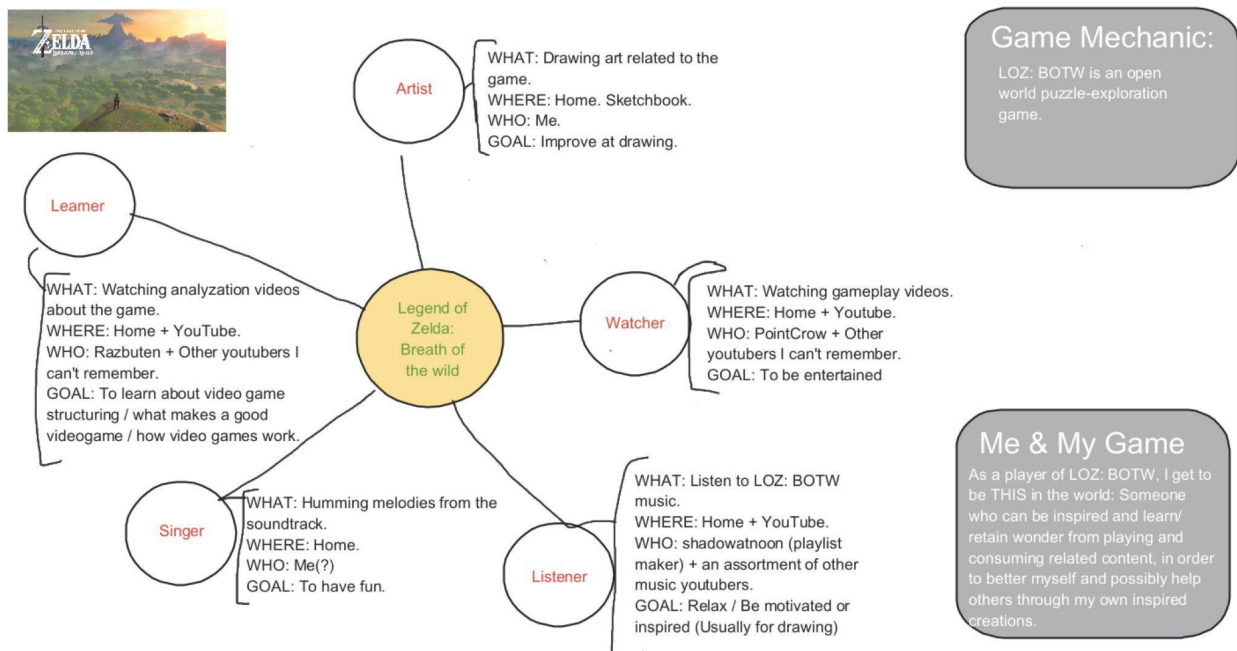

Figure 3
Examples of a Social Mechanic Ecosystem.

8. Where Youth Encounter Games in their Neighborhoods

When we first asked teens to describe the role video games play in their neighborhoods it was hard for them to think about their presence outside their home and schools ("What kind of mad person plays games on a subway? Keep it in your dang bag, man"). Given time and the right prompts, however, they eventually described how ubiquitous gaming is throughout their communities.

Through a digital hands-on activity, we asked them to go to Google maps and take a screen shot of any community they like. Then, inspired by the young boy's adventures in the comic strip Family Circus, they were asked to annotate their map with locations where they might encounter games. Below is one example, with text transcription from the creator's audio overview:

[block quote] So the person starts off at the library, where they're just kind of like searching up different games. And then they move on to the train station where they see some people playing on their Switch. And then they move on to the boba shop. And they're just like watching a playthrough video in the store window, since some boba shops play TVs. And then they move into a restaurant where they eat some food and they see a child playing on their iPad, because I feel like we've all seen that before. And then they move on to Anime Castle, which is basically like an anime store and they see someone buy a game figure, probably some sort of droid from Zelda. And then they move on to High School where they see a gaming club, like talking and playing games, and then they're at home. [block quote]

Figures 4

A youth games-in-community user journey map.

After all the maps were completed, we tallied up the most common locations and found quotes from individual maps to support each one. We then gave that list to one of the teens with the request to turn it into a composite map, representing the most common locations teens in our study encountered video games.
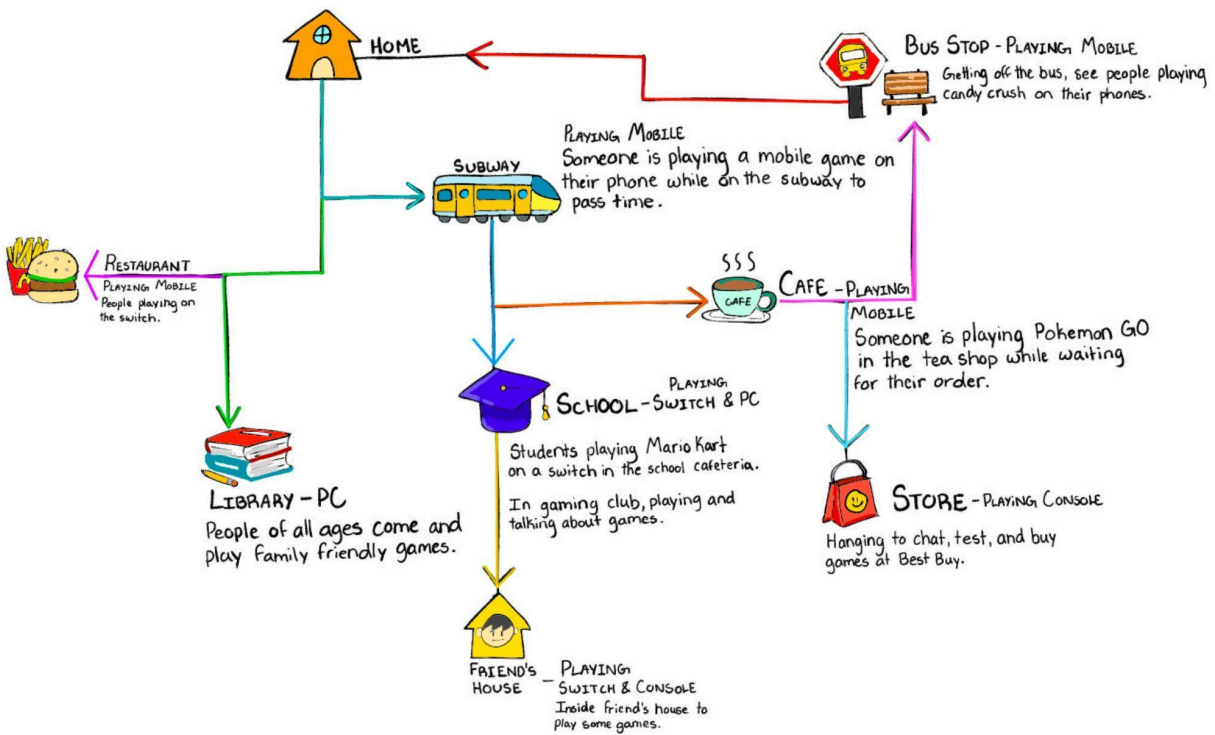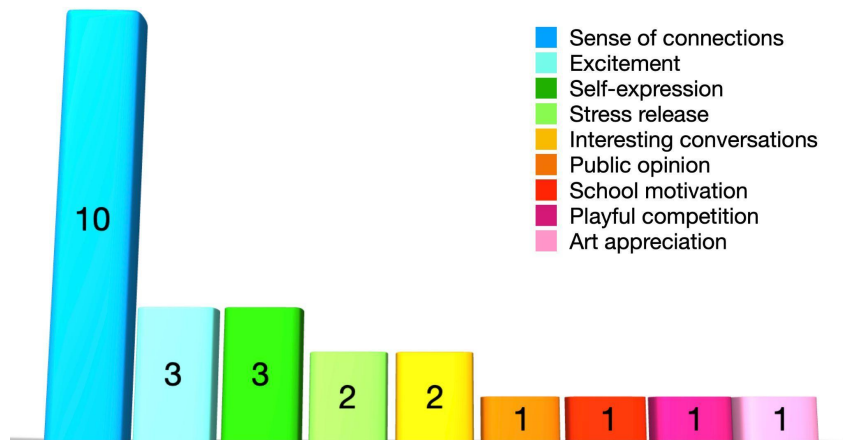

Figures 5
A composite games-in-community user journey map.

## 9. Personal and Local Impact of In-person and Online Gaming

When asked, "What would your communities lose without video games?" a sense of connection was by far the most common benefit the teens reported video games bringing to their communities. As one student said, "Video games help to connect people."

Figures 6

Response to "What would your communities lose without video games?" (N=16).

When asked the follow-up question, "Is there anything you would like to change about how video games impact your community and, if so, what?" their interest in expanding accessibility and inclusivity within their community stands out.
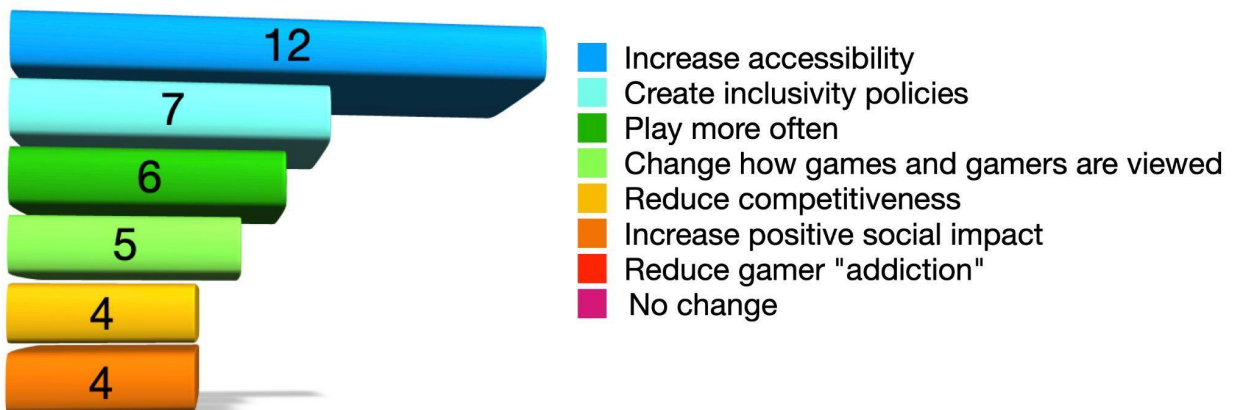
Figures 7

Response to "Is there anything you would like to change about how video games impact your community and, if so, what?" (N=16).

While video games were viewed as a powerful force that brought people together in their physical communities, it was also a tool that through sexism and racism kept them apart from their online communities.

When we explored where the prejudice of others impacted their relationship with games, sexism against female players was the most common concern raised, followed by racism. They consistently reported being angered and devalued by these experiences, and the sense of powerlessness that accompanied them. Their most common short-term responses were to

either leave the game or silence their microphone. Their long-term strategy is to hide – to hide their femininity, to play worse if they are a girl, and other tactics that hide their identity.

Racism is encountered in everything from how users present themselves online to the trash talk during games. "Some of the usernames I've encountered are so blatantly racist," shared one student, "that I had to put down the game." Another student shared, "While playing multiplayer games, I got, like, hate crimed a few times. People would just say the N word to me, yada, yada, yada… I have to take a break from the game because it's just not good for my mental health."

There was often an understanding that inequities within the game design industry are at the root of the problem: "The majority of the gaming industry is still male, white, and cis. [I want to see] a little bit more diversity behind the works." But even when gaming companies step up to the challenge, it is gamers that need to respond in kind, and often fall short. "The developers [of Apex] Legends [say] 'Most of our characters are LGBTQ,'" shared one student, "and then the people who play the game are like homophobic and transphobic. So it's just like a disconnect from the community and what developers kind of want to do."

Few confronted the prejudice directly and none reported doing so successfully. Often, to protect themselves, the students just leave the game. "If I would ever get called n-slur or f-slur," shared one student, "I would just leave the game and que for another game because I know that I can't do much besides report, but I still feel bad and just avoid that game for a little bit even if I enjoy playing." We only encountered one girl who found a way to address the sexism that she found effective: "Anytime I experience sexism… I try to prove them wrong. I don't even bother trying to argue… I'd rather just show them who I am rather than tell them, you know?"

For many the sexism and racism they experience in online gaming is a reflection of prejudice in the wide-world. For many these environments become a training ground for the general powerlessness they feel about doing anything to change it.

10. Youth, Games, and Academics

Teens consistently reported that they wished they encountered games more often in their classrooms. As one might expect, they identify that gaming can be fun, helps them relax, and forms social bonds. But they are also highly aware of how games empower their academic learning.

Digital games are infused enough into their academic coursework that they can appreciate how it teaches new skills and content while providing an effective way to review material.

They do not understand, however, why their schools leave the power of games-based learning largely untapped.

In general, the youth we surveyed were most likely to encounter gaming in their courses through competitive, content-agnostic, cloud-based quiz platforms, like Kahoot or Quizziz. Youth often view these as an almost magical force that drives both learning and engagement. (We asked the students to create comic strips to illustrate the main lessons they wanted us to learn, which will be used below to highlight some of our findings, in their own words. To be clear, their comics came before our analysis.)

Among 49 different games experienced in class mentioned by students, half were Kahoot or the nearly identical Quizziz and the similar Quizlet. When depicted in their comic strips, these types of games often come across as an academic cure all.
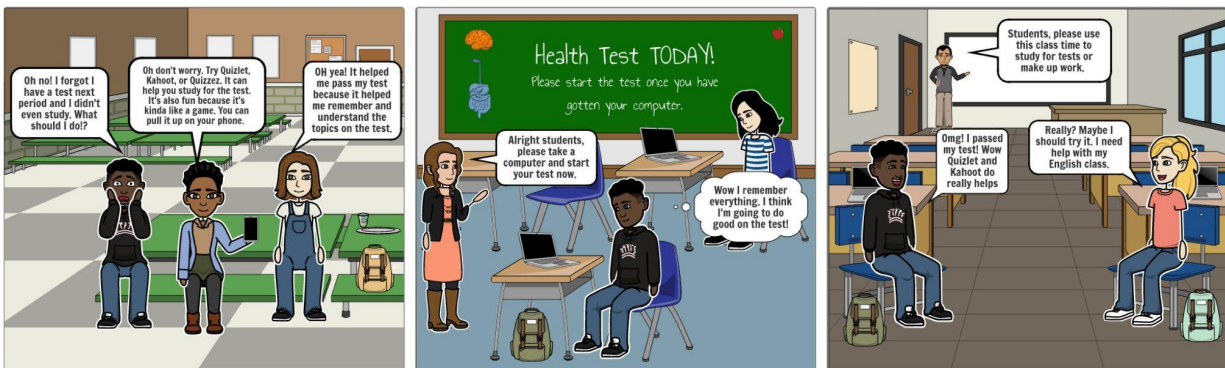
Figures 8
A teen's comic strip demonstrating the learning powers ascribed to Kahoots.

In general, games are used as both a learning tool (as a way to develop new skills or learn new content) or as learning support to review that content (to reinforce the learning or as test prep).
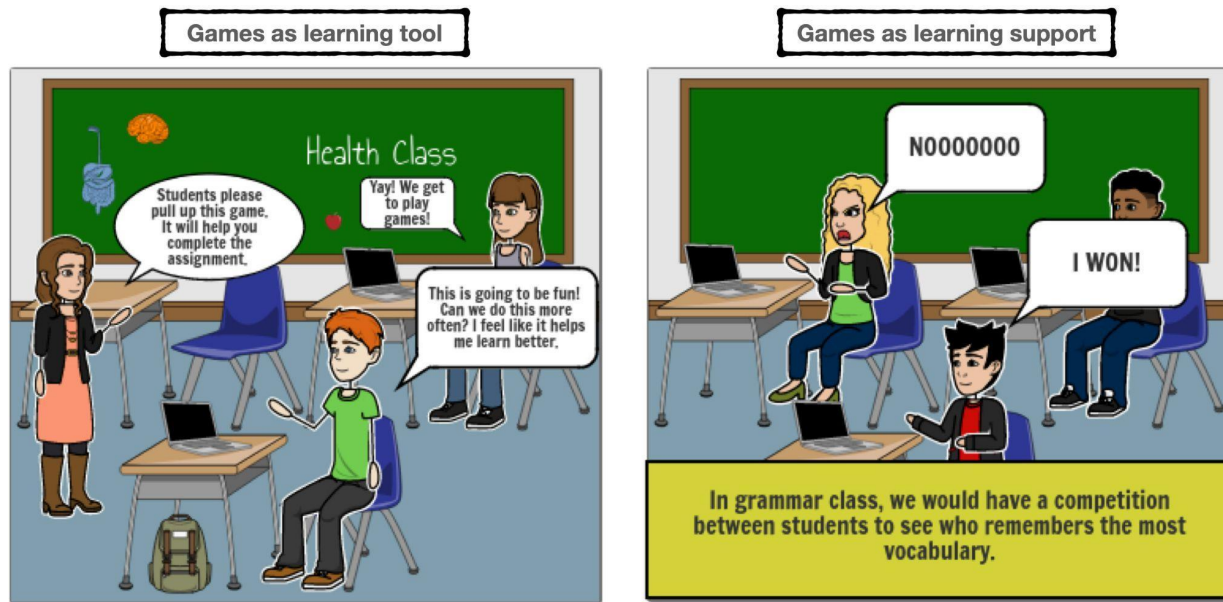
Figures 9
Youth description in comic form of games as learning tools and games as learning support.

Occasionally, single-subject games are used to teach content, like a typing game to learn typing, Oregon Trail to teach U.S. History, Coolmathgame to learn Math, or lab simulations to teach Chemistry. It is rare, however, for a non-quiz, content-agnostic game to be used, like Minecraft for Engineering or an escape room for Chemistry.

Beyond what they already experience, what youth said they want more of is content-specific game-based learning opportunities, to go deeper into specific skill sets or academic content areas. For example, they would like to see games that teach specific subjects (like Shakespeare, global politics, or rhythms). They also asked to see games used as subject matter to elucidate academic content (how physics, math and chemistry are used to design games, the psychological effect of game music, and how games impact society).

We were surprised to see that games did not appear to have a common home within their schools. While game coding might be taught in a Computer class, students were just as likely to play an escape room in World Studies, learn engineering through Minecraft, or use Duolingo to learn a new language.

11. What Educators Had To Say

Meanwhile, according to our surveys and interviews, New York City educators are not oblivious to the impact games have in the lives of their students. However, the exact details remain

obscured to them. Most could not share much about topics like the games students play, their game-adjacent activities, or how their gaming is shaped by their backgrounds.

They did, however, highlight the same benefits identified by the youth – games as both community unifier and source of relaxation. Only a few teachers were able to speak to the racism students experience in online anonymous game communities and through biased game representation. One after school educator highlighted the value of the "social-emotional aspects of gaming… as kids grow up and try to find themselves."

When asked "Do you see any existing academic pathways in high school that build upon youth's interest in gaming and/or their career plans related to gaming?" only half could list an example. All were STEM-related save one (videography).

The percentage offering examples raised from half to 75% when the question shifted from seeing academic pathways in high school to college. More striking was the broad range of non-STEM examples (many within game-adjacent fields) such as design, business, political science, pre-law, English, communications, and event production. When asked "In the past year, have you encouraged any students to pursue any of these pathways?" the majority said they had, directing them to after school programs and higher education opportunities.

Nearly all agreed that they see "overlooked opportunities for building on students' interest in gaming to advance them on their academic and career pathway." The challenge, as one teacher framed it, is that "most of the students that we serve look at video games from the consumer side." The job then of educators, as they described it, is to help their students make a connection between their gaming interest and their future. "I believe that it's us educators that need to really talk to these kids about the potential of games."

For educators to play this role they asked for curriculum to bring games into classrooms across the disciplines; for internships to connect youth with industry; and for resources to offer after school programs within their schools.

12. WHAT COLLEGE STUDENTS HAD TO SAY

While this paper has focused on the voices of New York City high school teenagers, the broader study looked at what today's college students have to say about when they were still high school students.

In a survey completed by current City College of New York (CCNY) students (N=104), we asked "Is there anything about your current or past interest in gaming that influenced your current

academic trajectory?" While one third said gaming had no influence (34%), the majority (57%) said games had in fact influenced their current trajectory.

Among the 41 who named a specific academic trajectory, roughly one third (15) identified a trajectory aimed towards work in the video game industry, through computer engineering, software engineering, mechanical engineering, and computer science. Specific roles identified as goals within the gaming industry include game designer, creative director, video game trailer editor, illustrator, game story writer, and professional eSports player. One respondent shared a comment with a sentiment common to many: "My current interest in gaming is what led to me deciding on majoring in computer science."

The remaining two-thirds (26), the vast majority in fact, named a wide range of fields for a career outside of – but influenced by – gaming: engineering, computer science, mathematics, mechanical engineering, graphic design, interactive design, education, law, social sciences, sociology, storytelling, comic books, medicine, and psychology. Clearly, academic interests inspired by gaming is vast and broad.

Among CCNY students whose academic trajectory was influenced by video games (N=59), the majority (63%) named at least one type of person or institution who helped them to make that connection. So what can this tell us about who is influencing high school students to pursue interests inspired by games at the college level?

The number one influence is by far from the gaming industry itself (23%), equally split between both game designers and professional YouTubers. When it comes to game designers, students listed both companies (like Nintendo and Bungie) and iconic game designers (like Notch and Shigeru Miyamoto) as role models and influencers. Meanwhile, individual YouTubers and streamers help them understand game design in a more sophisticated way, raise awareness about career opportunities, and inspire them to move from consumers to creators.

13. CONCLUSION

This summation began by addressing how this study reframed youth from being the subjects of gaming's influence to being agents leveraging what games afford, shifting focus from what games do to teens to what teens do with games. While it was undertaken with a specific goal in mind – to better understand the lives of teens living in the communities of Harlem, Upper Manhattan, and the South Bronx to recruit them for the City College of New York – both the lessons learned and the approach taken can be of value to anyone interested in supporting the development of today's youth to pursue their dreams.

For CCNY, this study highlighted the important role the college could play opening public pathways for local youth into New York City's expanding gaming industry. It helped the college broaden its understanding of the academic potential of games - from a strictly STEM-focused opportunities to a broader understanding of the vast cross-departmental interests that intersect with game and game-adjacent interests. And it helped to clarify the key institutions involved in such a pathway - the college, high school programs, the gaming industry, and community-based organizations - and that movement is not simply one-directional (in which a pipeline directs youth into jobs) but multi-directional (in which all partners benefit from their involvement in the system).
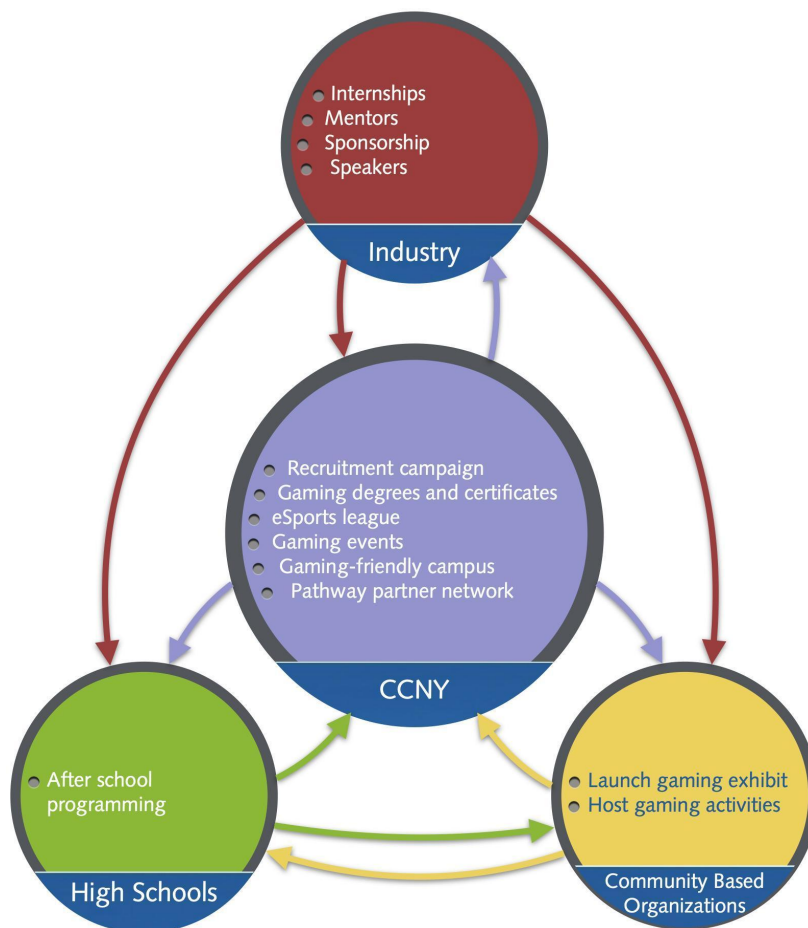
Figures 10

The key institutions modeled within the public pathway.

Finally, based on these findings, in the spring of 2022, The Gaming Pathways Program at the City College of New York was announced, a multi-million dollar initiative designed to meet the workforce needs of the growing video gaming and related creative industries in New York City.

14. Acknowledgments

For more information on the CCNY Gaming Pathways Project, please contact: Stan Altman, Ph.D., President, SAENY, and Professor, CCNY (saltman@ccny.cuny.edu) and Susan Perkins, Ph.D. Dean, Division of Science CCNY (sperkins@ccny.cuny.edu).