



TEACHER'S MANUAL

[play4REAL Lab](https://play4real.org)





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Introduction

Thank you for choosing to play Invite Only VR with your students. Invite Only VR is a learning game that teaches adolescents about the dangers and health risks of vaping or using JUUL/Electronic cigarettes (e-cigarettes) using virtual reality (VR) technology.

Invite Only VR is played on the Oculus Go and takes 1.5 – 2 hours to complete. This game was developed for adolescents ages 11 to 16 years old and can be also used to complement your existing health curriculum.

In this guide, you will find a general overview of the game mechanics, as well as the content areas presented in the game. We recommend that prior to using this game in the classroom, educators should review this manual and become familiar with the game.

If you have any questions, please contact us at play4REAL@yale.edu.

A Timely Intervention

According to the Center for Disease Control and Prevention, in the years 2011 to 2015, e-cigarette use among high school students grew by 900%. NIDA reports that in 2018, 1 in every 3 12th graders reported using e-cigarettes. These numbers have only continued to climb, since many teens believe that e-cigarettes are a safe alternative to regular cigarettes. In fact, 75% of 8th graders believe they are just inhaling flavored water vapor--only 10% of surveyed students knew they were inhaling nicotine. The nicotine found in these products is especially dangerous for teens because it harms their still-developing brain and makes them more likely to become addicted later in life. High school students who reported using e-cigarettes were 7x more likely to report that they smoked cigarettes 6 months later.

Although much about the dangers of e-cigarettes remains unknown, the information gathered thus far reveals that e-cigarettes contain nicotine and many other harmful cancer-causing chemicals. In fact, one JUUL pod contains the same amount of nicotine as 20 regular cigarettes. Alarmingly, short term effects, such as severe lung damage, have been identified in people who have vaped for as little as 1-2 years. If the short term effects are dangerous, the undiscovered long term effects could be fatal.

E-cigarettes also pose a safety issue. Ingesting e-cigarette liquid can result in death. Additionally, overheated e-cigarettes and battery explosions have caused over 2000 explosion/burn injuries in the short span of time of 2015 to 2017. In rare cases, these explosions have been fatal. Despite these facts, many teens still use e-cigarettes, influenced by fun flavors, advertising that appeals to young people, and inaccurate labelling. Furthermore, many students have not been educated about these risks.

This gap in knowledge can be combated with Invite Only VR. Through the use of a videogame format, which appeals to teens, students learn about the dangers of JUUL/e-cigarettes, in addition to learning how to respond to peer pressure.

According to NIDA, e-cigarette use is now the number one tobacco product used by teens in the United States, with JUUL holding 76% of the e-cigarette market share.

About Invite Only VR

Invite Only VR is a product of a collaboration between various research organizations and game developers, including:

- play4REAL Lab at the Yale Center for Health and Learning Games
- Oculus Education
- PreviewLabs, Inc.

Invite Only VR, a VR videogame intervention focused on JUUL/e-cigarette prevention in adolescents, was developed with funding from Oculus and in partnership with prototyping company, PreviewLabs. The intervention is currently being evaluated in a non-randomized cluster trial (NCT).

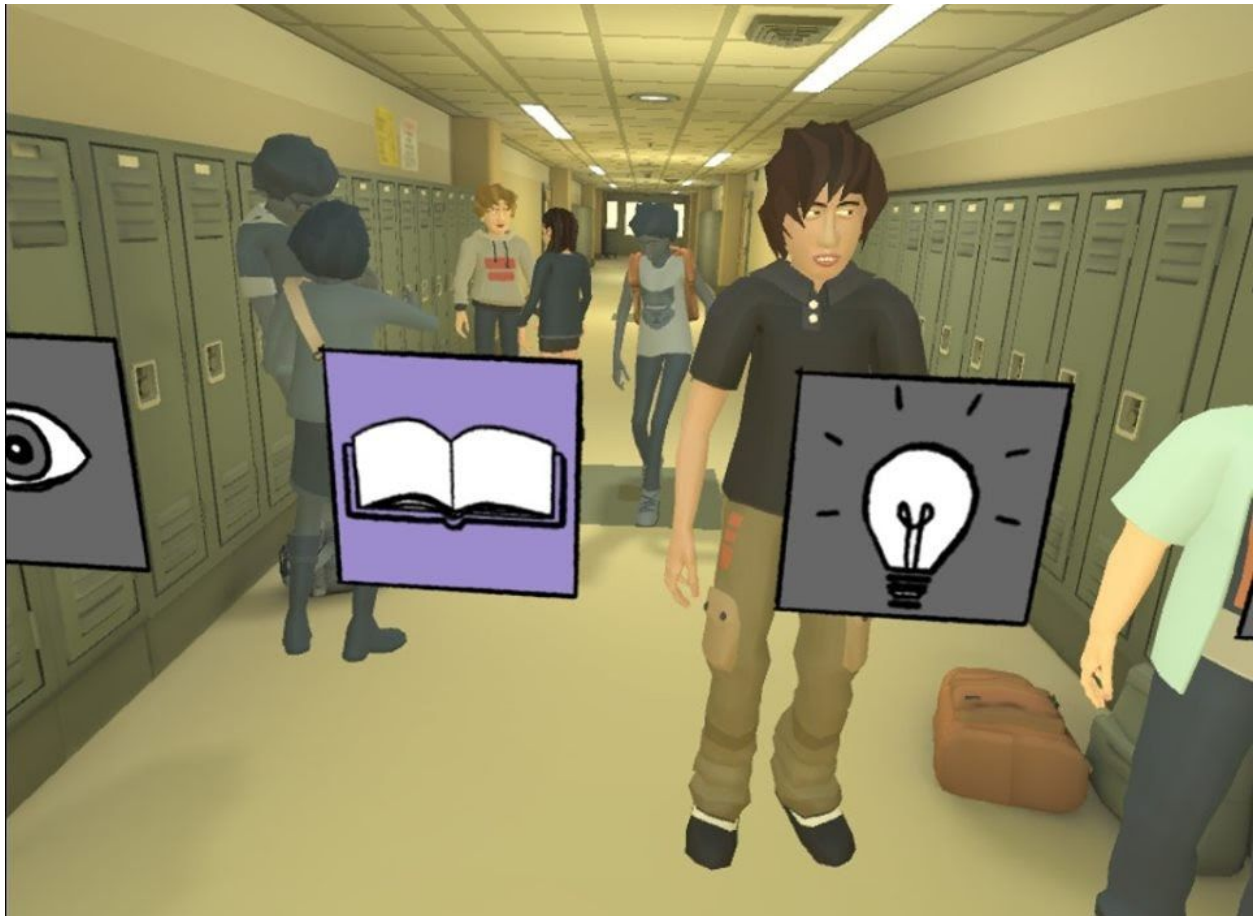
In the game, the player must navigate different types of peer pressure, including the pressure to vape (specifically JUUL) in various social situations such as in the school bathroom, in the back of the classroom, and at a party. As the game progresses, the player develops new powers he can use to help him successfully navigate these high-pressure situations, including the power to observe his environment, the power to apply his newly-gained knowledge about vaping in conversations with others, and the power to refuse his peers in an effective way. Invite Only VR uses voice recognition software, which allows the player to practice refusing peers in real time.



Alignment with National Health Education Standards

National Health Education Standard	Activity in Game	Task: Description
1.12.5: Propose ways to reduce or prevent injuries and health problems	Power of Observation	The player observes many posters and facts that focus on preventing health issues by not vaping or quitting vaping
1.12.8: Analyze personal susceptibility to injury, illness, or death if engaging in unhealthy behaviors	Classroom Storyline	The player discusses with the teacher character how e-cigarettes and vaping behaviors can cause illness and injury
2.8.5: Analyze how messages from the media influence health behaviors.	Social Media and Advertising Analysis	The player engages with an e-cigarette ad or social media promotion to understand how e-cigarette companies leverage media to attract customers
3.12.5: Access valid and reliable health products and services.	Power of Knowledge and Power of Observation	The player uses the observation power to find resources for those trying to quit vaping, including https://teen.smokefree.gov/ and real help hotlines available by phone or text
4.8.3: Demonstrate effective conflict management or resolution strategies.	Power of Understanding and Power of Refusal	The player uses the understanding power to glean how peers are trying to influence his or her behavior and practices responding appropriately
4.12.1: Use skills for communicating effectively with family, peers, and others to enhance health.	Power of Knowledge	The player uses the knowledge power to correct peer misinformation about e-cigarettes
4.12.2: Demonstrate refusal, negotiation, and collaboration skills to enhance health and avoid or reduce health risks	Power of Refusal	The player uses the refusal power to practice different strategies for refusing e-cigarettes offered by peers. Voice recognition software allows the player to practice using his or her own voice to refuse peers

<p>5.12.6: Defend the healthy choice when making decisions</p>	<p>Power of Knowledge and Power of Refusal</p>	<p>The player must defend the decision to not vape to a peer</p>
<p>8.12.2: Demonstrate how to influence and support others to make positive health choices</p>	<p>Power of Knowledge</p>	<p>The player makes use of his knowledge power to help his friend understand the dangers of her vaping habit and encourage her to seek help and quit</p>
<p>8.8.1: State a health-enhancing position on a topic and support it with accurate information.</p>	<p>Power of Knowledge</p>	<p>The player uses the knowledge power to provide facts about e-cigarettes to virtual characters and convince them of their danger</p>



Curriculum: Overview

Lesson Objectives

Students will be able to:

1. Explain how vaping, or using e-cigarettes like JUUL, could negatively affect their health and lives
2. Demonstrate effective refusal skills to resist the use of e-cigarettes
3. Summarize how social media and e-cigarette marketing aim to influence teens to use their products
4. State resources available to help a person who is addicted to JUUL/e-cigarettes

Materials & Preparation

1. Oculus Go
 - For our education partners working with the play4REAL Lab, Invite Only will be preloaded on each Oculus Go and can be accessed in the following manner: Library > Unknown Sources > Invite Only VR
 - Otherwise, Invite Only VR can be downloaded from the Oculus Store.
 - Each student can make a separate account with a unique 4 character username and PIN number on a shared device in order to track individual game progress
2. Voice Recognition
 - Invite Only VR uses voice recognition software to allow the player to practice refusing peers in real time.
 - This feature can be disabled in the Advanced Settings menu, accessible from the main game screen.
 - The Oculus Go is equipped with a microphone, but teachers with multiple students playing at the same time should ensure that students are seated with enough space between them that players' microphones are not picking up interference from other players.
3. Space
 - Invite Only VR is a stationary VR game that can be played from a seated position. However, some elements of the game do require that the student turns in place to access objects that are behind him
 - Each student should be seated so that they can move their arms around them without contacting another student

4. Headphones (highly recommended)
 - Invite Only VR has audio elements and we recommend each student wear headphones while playing the game

Logistics

Invite Only VR consumes substantial battery power during a single play session. We recommend that each Oculus Go headset is fully charged prior to the start of the lesson, or that each student have access to a charging cable and power during the lesson in case of battery loss.

In addition, Invite Only VR requires the use of the Oculus Go controller, which runs on AA batteries. It is recommended that extra batteries are available to replace drained controller batteries during the course of the lesson.

Time

The game does not have to be completed in one sitting. If time is limited, Invite Only can be played in increments of 30-60 minutes. On average, the game can be completed within 2 hours. The game consists of 4 “playthroughs” and so dividing play into 4 sessions is a sensible strategy. It is recommended that you offer students a break every 20 minutes of playtime in VR.

Setting

The Oculus Go is a portable, self contained device. This allows Invite Only VR to be played anywhere.



Curriculum: Content Areas

Invite Only VR focuses on the following content areas:

1. Description of JUUL/e-cigarettes
2. Water Vapor and Flavor
3. Health and Safety
4. Addiction
5. Marketing and Social Media
6. Purchasing/Owning E-cigarettes
7. Quitting

The game is designed to be an effective, theory-informed educational tool to facilitate students' learning. In addition to gameplay, educators may consider leading discussions and/or activities around each of the content areas with their students.

The following pages summarize main points and key takeaways of each content area that your students will learn from playing the game.

Description of JUUL/e-cigarettes

1. E-cigarettes are electronic devices used for vaping.
2. JUUL is a brand of e-cigarette that is shaped like a USB flash drive. It's powered by a battery that heats up a liquid that turns into an aerosol, which is then inhaled.
3. Nicotine, the chemical responsible for addiction, is found in almost all e-cigarettes, even if the label and packaging claim otherwise.
4. Teens that use e-cigarettes, such as JUULs, are much more likely to use other tobacco products, such as cigarettes.
5. The nicotine found in e-cigarettes, such as JUULs, can damage a teenager's brain.
6. A single JUUL pod has the same amount of nicotine as a whole pack of cigarettes.
7. JUUL has an extremely high level of nicotine, and a teen can show signs of addiction after just one or two hits.
8. Nicotine harms teen brain development and can even change the way the brain works.

Water Vapor and Flavor

1. "Water vapor" from e-cigarettes, such as JUULs, is actually an aerosol. It contains harmful substances like nicotine and toxic chemicals known to cause certain cancers and diseases.
2. A lot of teens say that one of the main reasons they vape is because of the flavors.
3. It is not yet known if the flavors used in e-cigarettes are safe to inhale for your lungs. In fact, some flavorings are known for certain to contain chemicals that cause cancer.

Health and Safety

1. The long term effects of vaping are unknown.
2. Vaping can irritate your lungs. That can make it really difficult for you to catch your breath or it can cause a cough.
3. There are toxic chemicals in e-cigarettes that are known to cause cancer and other diseases.
4. Fires and explosions have been caused by e-cigarette batteries being defective.
5. People have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or their eyes. It is not safe to touch or swallow e-cigarette liquid.
6. Depending on the type of smoke detector, water vapor can set off the alarm. Flavouring increases the size of small particles in the vapor, which can increase the likelihood of triggering the detector.

Addiction

1. A teen who has become addicted to nicotine will spend the rest of their life being more likely to become addicted to drugs and alcohol.
2. Many teens start using cigarettes or other tobacco products not long after they've started vaping.
3. Teens who have become addicted may find they have trouble paying attention in class, or that they feel anxious or depressed. They might also find themselves making more risky choices.

Marketing and Social Media

1. If e-cigarette companies get a teen hooked early, they probably have a customer for life.
2. The more teens see ads for JUUL and vaping, the more likely they are to vape.
3. Social media platforms like YouTube, Instagram, and Twitter have become a popular place for tobacco companies to advertise products like e-cigarettes to young people.

Purchasing/Owning E-cigarettes

1. It is illegal for anyone to even own an e-cigarette if they are under the age of 18.
2. It is illegal to lie about your age if you are trying to buy e-cigarettes or e-cigarette pods, online or in person.
3. It is illegal to sell e-cigarettes or pods to minors.
4. Getting caught in school can result in serious consequences from both the school and the law.

Quitting

1. If someone is addicted to nicotine, it will be very hard for them to quit.
2. Talk to your school counselor: the struggle to quit could affect academic performance and classroom behavior.
3. Reach out to your pediatrician, parent, or a trusted adult.
4. There are free texting apps to help you quit JUUL or vaping. Just text QUIT to 47848.



Discussion Points

Players complete the game through the course of 4 playthroughs.

To facilitate their understanding of the material presented in the game, we encourage teachers to engage with their students in a discussion or interactive activity following the completion of each of the 4 playthroughs as they each cover different content areas.

Playthrough 1

In this playthrough, Mike is given the power of observation and attempts to complete his mission for the first time. He faces peer pressure for the first time and finds out his friend is JUULing. Without the knowledge about the dangers of e-cigarettes, Mike is unable to help his friend.

Questions to guide your discussion include the following:

- *What are e-cigarettes? Is a JUUL an e-cigarette?*
- *What is in e-cigarettes? What is the chemical that makes them addictive?*
- *What are some reasons teens might vape?*

Additional information for you and your students:

History of E-cigarettes:

E-cigarettes began to circulate the US market in the mid-2000s. They were originally marketed towards smokers as a substitute for regular cigarettes. Although e-cigarettes were supposed to be used to help people quit smoking, the use of these products among young adults and teens began to grow rapidly starting in 2010. Flavors are used to appeal to teens and hide the taste of the e-cigarette.

Playthrough 2

In this playthrough, Mike is given the power of knowledge. This allows him to access facts about the dangers of vaping. He continues to gather more information about e-cigarettes.

Questions to guide your discussion include the following:

- *What are some ways teens are pressured by their peers? How did Matthew try to convince Mike to JUUL?*
- *How do e-cigarette companies convince teens/pre-teens to vape?*
- *What are some of the health effects of vaping? What makes vaping dangerous?*

Additional information for you and your students:

Dangerous Ingredients:

The “water vapor” that many teens believe to be safe is actually an aerosol containing nicotine, heavy metals, cancer-causing chemicals, and organic compounds like bacteria. A type of fungus known to cause inflammation is found in many popular flavors. Additionally, a toxin related to E. coli has also been detected in fruit-flavored pods, which means that the fruit used to make the flavors is not properly pasteurized. Inhaling these bacteria, fungi, and toxins can cause asthma, inflammation, and poor lung function.

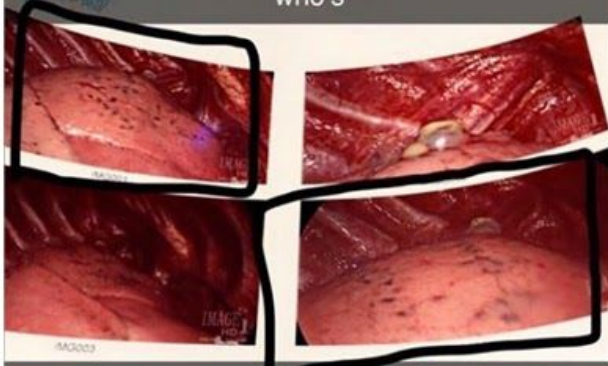
Specific Health Effects:

As of September 13, 2019 380 cases of lung illness associated with the use of e-cigarette products have been reported and this number continues to climb. The CDC is currently investigating the precise cause of all this illness. Hospitals are also diagnosing patients who vape with popcorn lung, which is an incurable scarring of the lungs. As of September 2019, there have been 6 deaths linked to vaping.

18-year-old Chance Ammirata is one individual who has come forward to share his story about the negative effects of JUULing. After vaping one pod every couple of days for less than two years, a hole in Chance’s lung caused it to collapse. Even after major surgery, the damage to his lungs is likely permanent and will make it hard for him to participate in athletic activities for the foreseeable future. See Chance’s Instagram post on the following page.



You thought Juuls were safe. So did i the black dots on my lungs are all reminiscence of juuling. I've been doing it for a year and half and can never do it again. You really shouldn't either I know how hard it is it to change anyone's mind who's



Addicted because I was to. And I don't think anyone could have said anything to make me stop. But your lungs most likely look like this to if you've been smoking. Don't let it get worse.



chanceammirata This whole experience is absolutely insane and life changing (disclaimer I don't always look this bad just when I'm glued to the hospital bed for 8 days) I came into this experience completely negative mad at the world , and scared of how things were gonna turn out after my lung collapsed. But I decided to take this negative and completely find another meaning. I decided that spreading my story could help others not have to go through the same thing as me. One by one reading each message from every single one of you explaining how I was able to CHANGE YOUR MINDSET I was able to help you throw out your juul. Makes you realize enough is enough and that nicotine is rotting our brains and destroying our bodies. It overcame me with emotions. I've never been happier to make such a difference. My surgery to get my chest tube removed is scheduled in around 2/3 hours and I'm insanely nervous. But I want to make sure my story is always out there. And that the change doesn't stop. Every day we need to fight to help not only ourselves but the ones we love put down the nicotine. This epidemic has taken enough. We don't need more evidence telling us just how bad it is. How many more kids are going to have to get hospitalized for us to stop !? None should be the answer don't take this with a grain of salt. And keep on pushing yourselves to take control of these cravings. I know it's hard , and I know it will be a long one/2 weeks of getting over the addiction. But 1/2 weeks is so much more worth it than a lifetime of consequences. #lunglove #stopjuul #revolution #wewillmakeachange #wearenotcontrolled edit: hole*



290,503 likes

AUGUST 6



Playthrough 3

In this playthrough, Mike is given the power of understanding, which allows him to understand what his peers are actually saying, in addition to how they are trying to pressure him. He learns more about the dangers of JUUL/e-cigarettes and continues in his attempts to gain an invitation to the party.

Questions to guide your discussion include the following:

- *Are JUULs safe? What do e-cigarettes have in common with regular cigarettes?*
- *What tactics do companies use on social media to influence teens into purchasing e-cigarettes?*
- *What might happen to someone who becomes addicted to e-cigarettes?*

Additional information for you and your students:

E-Cigarettes and Social Media:

A 2013 study documented 30,000 vaping videos on YouTube with 100 million views. In 2018, another study showed that JUUL had 7 Instagram accounts, all with more than 2.5 million followers. As a result, it is estimated that about 70% of middle and high school aged youth have engaged with e-cigarette advertising on social media platforms. Although companies like JUUL have recently suspended their social marketing campaigns, the reality is that youth exposure to advertising on social media is a real problem and likely a major contributor to the current youth vaping epidemic.

E-cigarettes and Addiction:

Almost all e-cigarettes (including JUULs) contain nicotine, which is addictive. Research suggests nicotine may be as addictive as heroin and cocaine. Nicotine is also a toxic substance. It raises your blood pressure and spikes your adrenaline, which increases your heart rate and the likelihood of having a heart attack. Nicotine can harm the developing adolescent brain; younger users are more likely to become addicted, have more difficulty quitting, and may be at higher risk for addiction to other substances in the future.

Signs of Nicotine Addiction:

If you or someone you know experiences any of the symptoms of withdrawal described below when you do not have access to e-cigarettes or JUUL, it is a sign that you are addicted to nicotine.

Other signs of Addiction:

- Irritability
- Difficulty sleeping
- Difficulty concentrating in class
- Anxiety or depression

Symptoms of Nicotine Withdrawal:

Withdrawal symptoms usually peak after 1–3 days and then decrease over a period of 3–4 weeks. After this time, the body has expelled most of the nicotine, and the withdrawal effects are mainly psychological.

Physical Withdrawal Symptoms

Everybody is different, and symptoms of withdrawal depend on many things, like how long and how a person vaped before quitting. But for the most part, these are the common physical issues:

- **Increased Appetite.** Nicotine can suppress chemicals associated with hunger, so cutting nicotine will make someone want to eat more. Many people report weight gains about 5 to 10 pounds when they quit using nicotine.
- **Cravings.** Nicotine cravings can start just 30 minutes after someone's last hit. A single craving lasts 15 to 20 minutes, but they keep coming long after someone quits.
- **Cough.** The respiratory system can't clean itself very well when nicotine is around. Someone who recently quit will probably have a cough that could last for a few weeks until their lungs have recovered.
- **Headaches and dizziness.** These are generally mild and they're often the first withdrawal symptom to show up and first to taper off.
- **Fatigue.** Nicotine is a stimulant, so someone who has recently quit will feel tired without it. But they might also be restless and have insomnia or trouble falling asleep at night.
- **Constipation.** For the first month, constipation can be another unpleasant side effect of nicotine withdrawal.

Mental, Emotional, and Behavioral Symptoms

Like physical symptoms, how much someone is affected mentally and emotionally when quitting depends on the person. But most people will deal with some or all of the following signs of withdrawal:

- **Anxiety.** Nicotine relieves stress, so anxiety can skyrocket after quitting. Anxiety tends to peak around 3 days after quitting and can last for a couple of weeks.
- **Depression and Irritability.** Nicotine withdrawal interferes with neurotransmitters (dopamine and serotonin) associated with mood. This can lead to depression and irritability after someone quits. Depressive symptoms can start the first day someone quits but they are generally gone within a month.
- **Mental fog.** People who recently quit might have a hard time concentrating as they fight off cravings and the nicotine gradually wears off and leaves their body.

Playthrough 4

In the final playthrough, Mike is given the power of refusal. This allows him to safely navigate peer pressure while still looking cool. He also learns more about the dangers of vaping. At the party, he helps his friend on the path to quitting.

Questions to guide your discussion include the following:

- *What are some ways to say no to using e-cigarettes?*
- *Is selling/buying e-cigarettes, including JUUL and JUUL pods, legal?*
- *What are some ways to encourage someone you know to stop vaping? What are some things you can say to them?*
- *What are some ways to overcome addiction? Who can you contact?*

Legal Consequences:

Many US State Laws prohibit a minor (under age 18) from buying or possessing in public an e-cigarette and anyone from selling, giving, or delivering an e-cigarette to a minor. For example, in Connecticut, a person who sells an e-cigarette to a minor is subject to a fine of between \$200 and \$500, depending on the number of violations. A minor who purchases an e-cigarette or uses one in public must pay a fine of up to \$50 for the first offense and \$100 for each subsequent offense. Retailers who sell e-cigarettes to minors may be subject to civil monetary penalties ranging from \$279 to \$11,182 for continued violations during a four-year period. Moreover, any person (even an adult over 18) who vapes in a location where e-cigarette use is prohibited by state law (such as schools, universities, medical facilities, restaurants and bars), can be subject to pay a \$90 fine.

Vaping Marijuana

Vaping marijuana is often believed to be safer than smoking marijuana, but studies show that it is actually more dangerous for both teens and adults. This is because the concentrations of the chemicals in marijuana are much higher when vaped than when smoked, which can result in hallucinations. Prolonged marijuana use results in psychoneurological effects, such as impaired cognitive abilities. It negatively impacts memory, the ability to learn new things, and higher-level thinking. The effect is especially detrimental to teens, whose brains are still developing. Although vaping marijuana does not create smoke, it can still lead to respiratory issues. Additionally, teens who vape marijuana are more likely to use other drugs in the future.

Tools for Quitting:

teen.smokefree.gov

Visit teen.smokefree.gov for resources to help you quit, such as an app to help, a texting service, and the opportunity to chat with a trained counselor. The website will help you on your journey to being nicotine-free with many articles to help you through specific situations. They can even help you make a plan for the future.

How to Help a Friend Quit:

A person is more likely to quit if they have support and encouragement from loved ones. Make yourself available to talk to if your friend needs help. Make sure they know all the available resources designed to help them quit.



Walkthrough: Overview

Welcome to Invite Only VR!

In Invite Only VR, the player takes on the role of “Mike,” a freshman in high school, who has been tasked by friends with the goal of receiving an invitation to an exclusive party hosted by Shaun, a popular senior.

Throughout the game, Mike makes use of 4 unique powers to navigate social situations and ultimately secure an invite to the party. Mike is granted these powers through a text conversation with a mysterious unknown number. The unknown texter also gives him the ability to repeat (Groundhog Day-style) the Friday afternoon leading up to the party until he successfully secures the invitation.

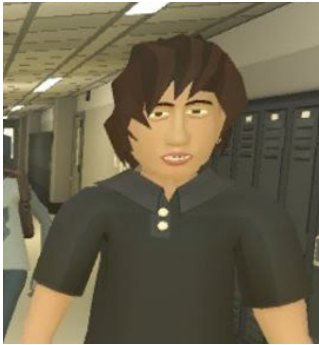
In each of the 4 repetitions of the day (or “playthroughs”) Mike will gain access to a new power to help him succeed in rejecting offers to vape, while still looking cool. The first power, “Observation,” allows Mike to examine the environment around him and pick up new information. The second power, “Knowledge,” allows Mike to use his newly learned information in order to correct his friends’ assumptions about vaping. Mike’s third power, “Understanding,” allows him to accurately perceive when someone is trying to pressure him into vaping, as well as the verbal strategy used by the individual making the offer. Finally, Mike’s power of “Refusal” allows him to turn down the offer and still look cool enough to warrant a party invite.

Each time Mike correctly uses his Knowledge and Understanding powers, he unlocks extra lives to play the Space Cats minigame. Space Cats is a tower-defense, wave-based shooter minigame that is all the rage at Mike’s school, and it provides students the opportunity to experience another form of virtual reality gameplay as a brief break from the lesson.

Walkthrough: Characters



Mike, the main character in the story. The player experiences the events of a Friday afternoon from his perspective and tries to get an invitation to an exclusive party.



Anthony, Mike's friend. Anthony believes that his entire highschool future depends on attending the upcoming party. He is tired of spending Friday nights playing videogames in his friends' basements and wants to get out there and meet some women. Anthony fancies himself a "ladies man" and acts like he knows everything about JUUL and e-cigarettes, although he does not vape.



Jeremy, Mike's other friend. Jeremy is really close to his mom and frequently texts her updates about his day-to-day. Jeremy's mom has advised him to be more social and make more friends. If Mike, Anthony, and Jeremy don't get the party invite, Jeremy's mom will make them a hot dog casserole for their Friday night game session.



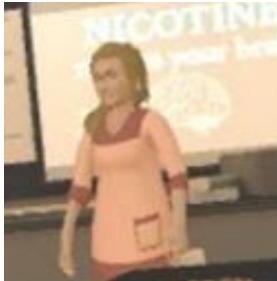
Yumi, Mike's friend since 3rd grade. Mike calls Yumi "Yums," a nickname she hates. Lately Yumi has been spending time with other friends, and Mike learns this friend group is linked to her new vaping habit. At the conclusion of the game, it is revealed that future Yumi found a way to text Mike during the day leading up to the party that would forever change her future. Without Mike's intervention, Yumi will start smoking cigarettes at the party and become a lifelong smoker.



Matthew, the school “dealer.” If you want it, Matthew has it. Matthew was once suspended for smoking pot at school and it is his second time taking Ms. Hart’s health class. Matthew buys JUULs and pods online to sell to kids at his school. Matthew is a charming salesman who peppers his offers with clever puns, but will freely admit that his memory “isn’t what it used to be” as a result of his dalliances with drugs.



Priya, Mike’s crush and Space Cats livestream extraordinaire. Priya is well known for her Space Cats prowess and hosts a popular gaming livestream. Between her tutoring gig and her Space Cats obsession, it is not clear how she makes time for a social life. Nevertheless, Mike admires her for her confidence in class and the way she looks out for her friends. Priya and Yumi are friends, but prior to the events of Invite Only VR, Mike has never had the opportunity (or the courage) to talk to Priya in person.



Ms. Hart, the beleaguered health education teacher. She is well known for her ability to smell vape from a mile away, but that doesn’t stop her students from taking a hit in the back of the classroom. As Mike observes, “poor Ms. Hart. No one ever finishes the reading assignments.”



Shaun, the cool guy everyone wants to know. Shaun is a senior taking Ms. Hart’s health class for the third time. Priya tutors him after school in the cafeteria. Shaun is famous for hosting great parties, and everyone knows that he vapes.



Boy in the Bathroom Stall, a poor schmuck trying to get in touch with his mom to get a clean pair of pants. Mike never sees his face, but the boy in the bathroom stall is one of the lucky students invited to Shaun’s party. His story varies widely from a mishap with the water fountain to a toppled bowl of soup, but it is clear that his pants are soaked and he needs a clean pair to change into before he can leave the stall.

Walkthrough: Observation Power

Playthrough 1:

Hallway



OBSERVATION 1: GIRLS IN THE HALLWAY BEHIND MIKE

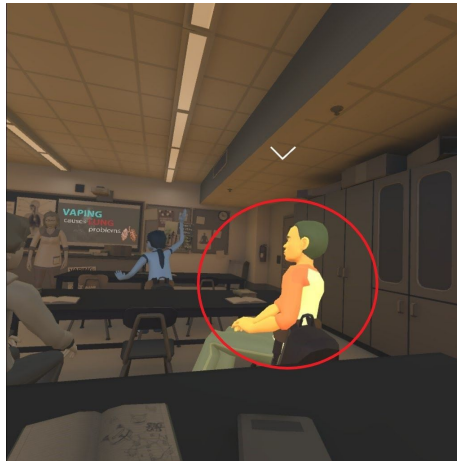


**OBSERVATION 2: MATTHEW
OBSERVATION 3: YUMI**

Classroom



OBSERVATION 1: PRIYA

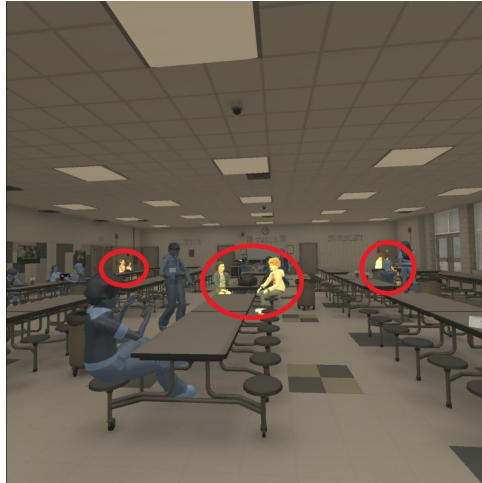


OBSERVATION 2: SHAUN



OBSERVATION 3: CELL PHONE OF GIRL BEHIND PLAYER

Cafeteria



OBSERVATION 1: PRIYA & SHAUN
OBSERVATION 2: YUMI & MATTHEW
OBSERVATION 3: ANTHONY & JEREMY

Playthrough 2: Hallway

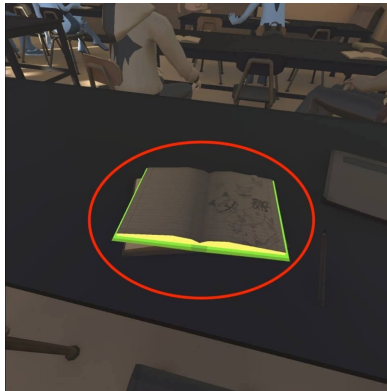


OBSERVATION 1: ANTHONY
OBSERVATION 2: MATTHEW'S BACKPACK

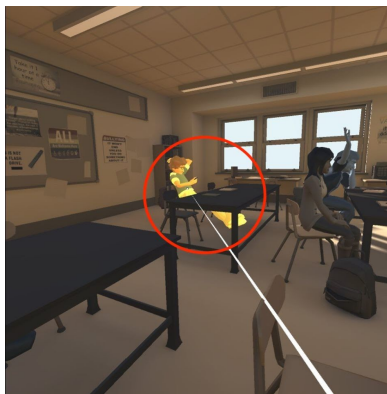


OBSERVATION 3: POSTER ON WALL

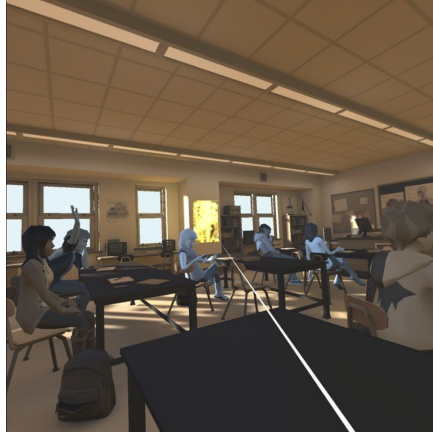
Classroom



OBSERVATION 1: BOOK ON TABLE



OBSERVATION 2: KID ON PHONE IN BACK LEFT



OBSERVATION 3: POSTER ON LEFT WALL

Bathroom



OBSERVATION 1: JUUL ON SINK
OBSERVATION 2: WINDOW BEHIND SHAUN



OBSERVATION 3: DOOR TO HALLWAY BEHIND MIKE

Cafeteria



OBSERVATION 1: STUDENT'S PHONE
OBSERVATION 2: YUMI'S BACKPACK



OBSERVATION 3: HEALTH TEXTBOOK ON TABLE

Playthrough 3:

Hallway

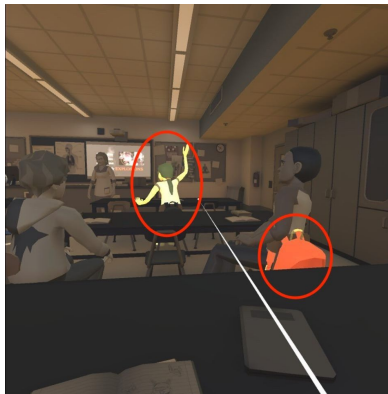


OBSERVATION 1: SHAUN'S LOCKER
OBSERVATION 2: STUDENT WEARING SPACE CATS SHIRT



OBSERVATION 3: CLOCK ON WALL
(on the player's right)

Classroom



OBSERVATION 1: SHAUN'S BACKPACK
OBSERVATION 2: GIRL WITH HAND UP



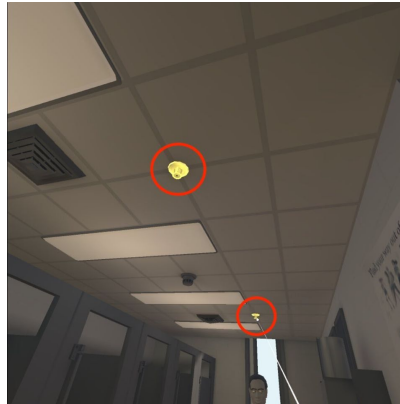
OBSERVATION 3: PRIYA'S BACKPACK

Bathroom



OBSERVATION 1: BOY'S SHOE IN STALL

Shoe visible under stall door



OBSERVATION 2: SPRINKLER ON CEILING

Two white sprinklers on ceiling of bathroom (can click on either sprinkler)



OBSERVATION 3: EXAM ON FLOOR

Cafeteria



OBSERVATION 1: POSTER ON WALL



OBSERVATION 2: STUDENT PUTTING POD INTO VAPE PEN
OBSERVATION 3: SPACE CATS POSTER

Playthrough 4:



OBSERVATION 1: JUUL INSIDE LOCKER BEHIND PLAYER
OBSERVATION 2: CLASSROOM DOOR

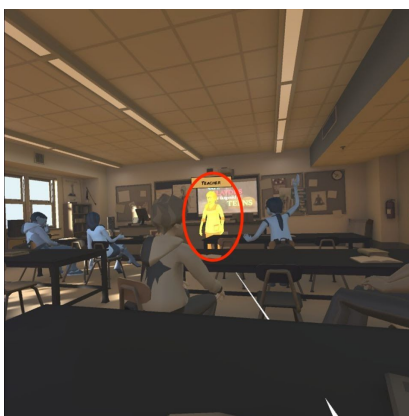


OBSERVATION 3: GIRL'S PURSE

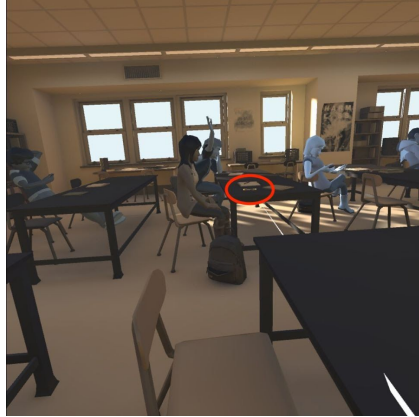
Classroom



OBSERVATION 1: POSTER ON BACK WALL



OBSERVATION 2: MS. HART



OBSERVATION 3: PRIYA'S PHONE

Priya's phone is on the desk in front of Priya, to the left of the player.

Bathroom



OBSERVATION 1: PHONE NUMBER ON STALL DOOR



OBSERVATION 2: POSTER TO PLAYER'S RIGHT



OBSERVATION 3: SWEATER BEHIND PLAYER ON THE FLOOR

Cafeteria



**OBSERVATION 1: POSTER ON WALL
OBSERVATION 2: GIRLS TALKING
OBSERVATION 3: PIZZA**

Party



OBSERVATION 1: RED CUP ON COFFEE TABLE
OBSERVATION 2: GIRL LYING ON COUCH
OBSERVATION 3: YUMI



OBSERVATION 4: TV



OBSERVATION 5: GROUP OF PEOPLE VAPING

Walkthrough: Knowledge Power

Mike uses his Knowledge Power to recall facts about the dangers of JUUL/e-cigarette use. As the game progresses, the player chooses from a list of facts gathered throughout the game to inform and correct Mike's peers about vaping.

Playthrough 1

Description of JUUL/e-cigarettes

- E-cigarettes are electronic devices used for vaping
- JUUL is a brand of e-cigarette that is shaped like a USB flash drive. It's powered by a battery that heats up a liquid that turns into an aerosol that is then inhaled
- Nicotine is the chemical responsible for addiction and it's found in e-cigarettes

Water Vapor and Flavor

- You aren't inhaling just "water vapor," but rather a lot of harmful substances like nicotine and cancer-causing chemicals. It's, in fact, not water vapor at all. It's an aerosol
- A lot of teens say that one of the main reasons they vape is because of the flavors
- It is not yet known if the flavors used in e-cigarettes are safe to inhale for your lungs. In fact, some flavorings are known for certain to contain chemicals that cause cancer

Playthrough 2

Health Effects

- The long term effects of vaping are unknown
- Vaping can irritate your lungs. That can make it really difficult for you to catch your breath or it can cause a cough
- There are toxic chemicals in e-cigarettes that are known to cause cancer and other diseases

Safety

- Sometimes, even fires and explosions have been caused by e-cigarette batteries being defective
- People have actually been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or their eyes. It is definitely not safe to touch or swallow e-cigarette liquid

Marketing

- If e-cigarette companies get a teen hooked early, they probably have a customer for life
- The more teens see ads for JUUL and vaping, the more likely they are to vape

Playthrough 3

Nicotine/E-cigs/JUUL

- Almost all e-cigarettes have nicotine in them, even when the label and packaging claims they don't
- A single JUUL pod has the same amount of nicotine as a whole pack of cigarettes
- JUUL has an extremely high level of nicotine, and a teen can show signs of addiction after just one or two hits
- Nicotine harms teen brain development and can even change the way the brain works

Nicotine Addiction

- A teen who has become addicted to nicotine will spend the rest of their life being more likely to become addicted to drugs and alcohol
- Many teens start using cigarettes or other tobacco products not long after they've started vaping
- Teens may find they have trouble paying attention in class, or that they feel anxious or depressed. They might also find themselves making more risky choices

Social Media

- Social media platforms like YouTube, Instagram, and Twitter have become a popular place for tobacco companies to advertise products like e-cigarettes

Playthrough 4

Purchasing/Owning e-cigarettes/JUUL

- It is illegal for anyone to even own an e-cigarette if they are under the age of 18
- It is illegal to lie about your age when buying e-cigarettes or pods online or in person
- It is illegal to sell e-cigarettes or pods to minors.

Quitting

- If someone is addicted to nicotine, it will be very hard for them to quit
- Talk to your school counselor: the struggle to quit could affect academic performance and classroom behavior
- Reach out to your pediatrician, parent, or a trusted adult. Nicotine addiction is real - you need support!
- Try free texting programs to help you quit JUUL or vaping. Just text QUIT to 47848.

Walkthrough: Understanding

When using the Understanding Power, players must resist peer pressure to engage in vaping. The game asks players to break down the process of peer pressure by asking 2 questions:



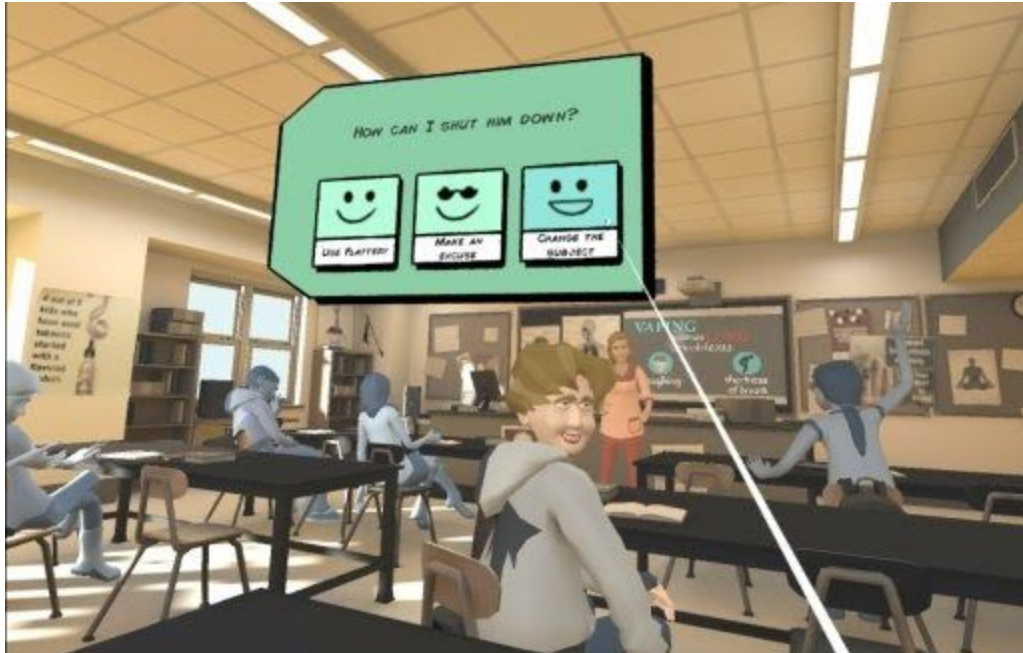
1. What is my peer really saying?
2. How is my peer trying to pressure me?

Successfully using the Understanding Power will earn the player lives to play Space Cats. Specifically, correctly identifying what the peer is saying on the first try will earn the player 3 lives. The number of lives earned will decrease by 1 until the correct answer is selected. Likewise, the player can learn up to 3 lives by identifying the strategy the peer is using to pressure the player into vaping.

These are the pressuring strategies exemplified in Invite Only VR:

1. Saying how good it will be
2. Calling names like weak, uncool, etc
3. Saying everyone is doing it
4. Playing if off like its no big deal

Walkthrough: Refusal



When using the Refusal Power, the player can select different strategies to refuse to participate in vaping while still saving face. In Invite Only VR, all strategies for refusing are considered valid, so no Space Cats lives can be earned. However, sometimes the player will need to refuse multiple times before the peer finally backs off. This provides the player with practice employing different refusal strategies.

These are the refusal strategies exemplified in Invite Only VR:

1. Change the subject
2. Use flattery
3. Come up with an excuse
4. Be mean
5. Make a joke

Walkthrough: Space Cats Minigame



Space Cats is a minigame within Invite Only VR. The player's task is to defend his or her spaceship from hordes of evil robot cats by launching water balloons from the forward cannon. If an evil robot cat gets past the player's defenses, the cat will collide with the player's ship and cause the player to lose a life.

Whenever the player uses the knowledge power to correct characters in the game, correctly understands how Matthew and Shaun are trying to pressure Mike to vape, or refuses to JUUL, the player is rewarded with additional lives to play Space Cats. More lives means more chances to fend off the hoard of evil robot cats!

The player has 6 opportunities to play Space Cats: 4 times at the beginning of each classroom scene, 1 time at the end of the player's 4th cafeteria playthrough, and 1 final time at the end of the game.

Conclusion

Students complete Invite Only VR by finishing all 4 playthroughs in the game.

We hope you and your students enjoy playing Invite Only VR: A Vaping Prevention Game!

We would like to extend our thanks to our funder Oculus Education, for their support on this project.

Questions? Email us at play4REAL@yale.edu.

