



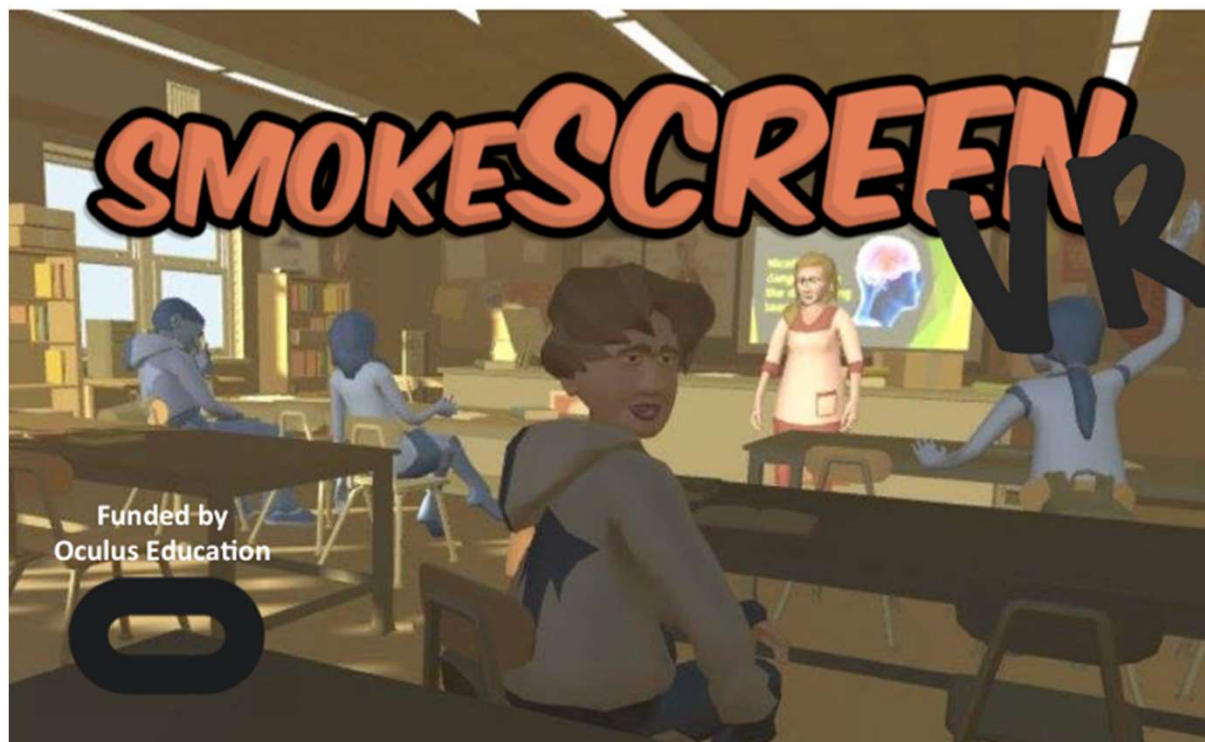
XRDC's 2018 Innovative AR/VR Showcase

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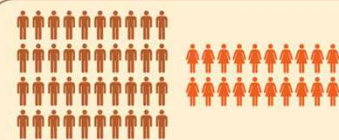
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Development and Evaluation of smokeSCREEN VR

- Formative Work
- Game Development
- Pilot Study and Preliminary Analysis

What's the problem with vaping?



2X
as many boys use
e-cigs as girls

TEENS ARE MORE LIKELY TO USE
E-CIGARETTES THAN CIGARETTES.¹



7 in 10
exposed to ads

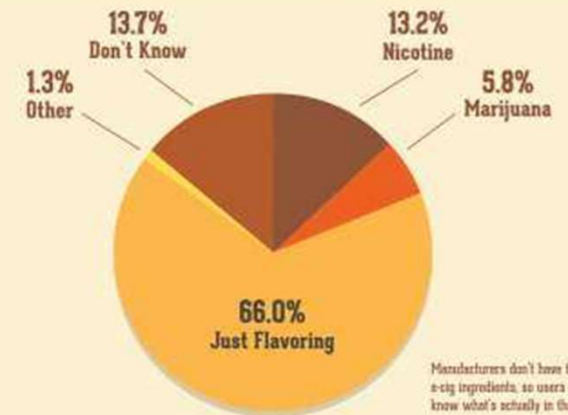
TEEN E-CIG USERS ARE MORE LIKELY TO START SMOKING.

Start Smoking Within 6 Months



¹Includes combustible tobacco products (cigarettes, cigars, and hookahs)

WHAT DO TEENS SAY IS IN THEIR E-CIG?³



Survey with teens

Have you tried
JUUL?

76%

- 29 teens, ages 15-17, 83% male
 - 15% reported JUULing 51 to 100 days in their life
 - 30% reported JUULing over 100 days in their life
 - 65% reported JUULing at least once in the past month

Top Reasons to JUUL

FUN

BORED

FRIENDS DO IT

HEAD RUSH

BUZZ

LOOKS COOL

PEER PRESSURE

TASTES GOOD

VAPOR TRICKS

HELPS ANXIETY

TAKES MIND OFF

PROBLEMS

How might a person convince the player to JUUL with them?

- C'mon do it and you're cool. JUUL is cool.
- Its not bad for you; its harmless, it won't hurt you
- One hit won't do anything – you can't get addicted
- Everyone is doing it
- It's an awesome feeling
- It tastes good
- You'll look cool
- It will give you a head rush
- Its nothing; its not a big deal, its just a JUUL

“Usually people don’t try to convince others to use their JUUL...people pay others to use theirs and will spend up to \$3 for one or two rips.”





PLAY4REAL

smokeSCREEN VR Game Playbook

1. Player Transformation/Learning Goals

Learning goals for *smokeSCREEN VR* include the following:

- Increase adolescents' ability to recognize potential risky situations associated with using e-cigarettes (the ability to read cues from others and social situations)
- Improve adolescents' confidence and self-efficacy to resist social pressure (have the belief and confidence that one can perform a behavior within a social situation)
- Increase self-regulation and self-management skills in relation to refusing others and the ability to negotiate risky situations associated with e-cigarettes (have the set of skills in order to perform a behavior)
- Increase adolescents' awareness of how others may use compliance gaining to persuade them to do something or act in a particular way
- Increase knowledge/correct inaccurate risk perceptions associated with e-cigarette use

smokeSCREEN VR is about learning how to quickly assess situations associated with peer pressure and e-cigarette use, think logically and decide what is the best decision, and then having the skills to follow up that decision with an appropriate action. It is about being aware what is going on around you, thinking ahead, and then putting refusal skills to action in a way that protects yourself, but also preserves the self within the context of social expectations.

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Development of smokeSCREEN VR

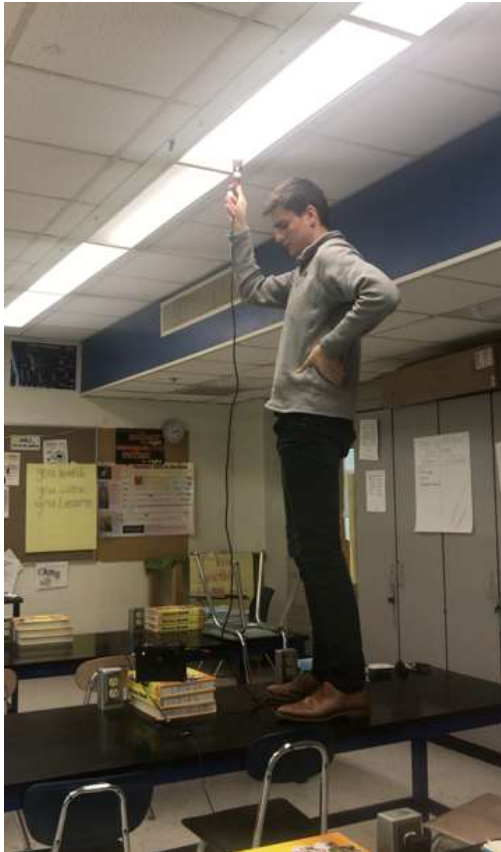
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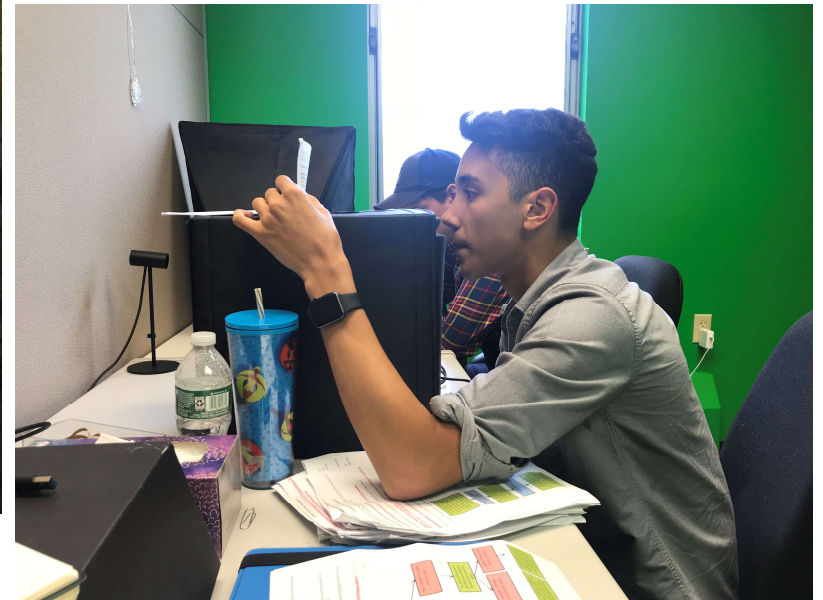




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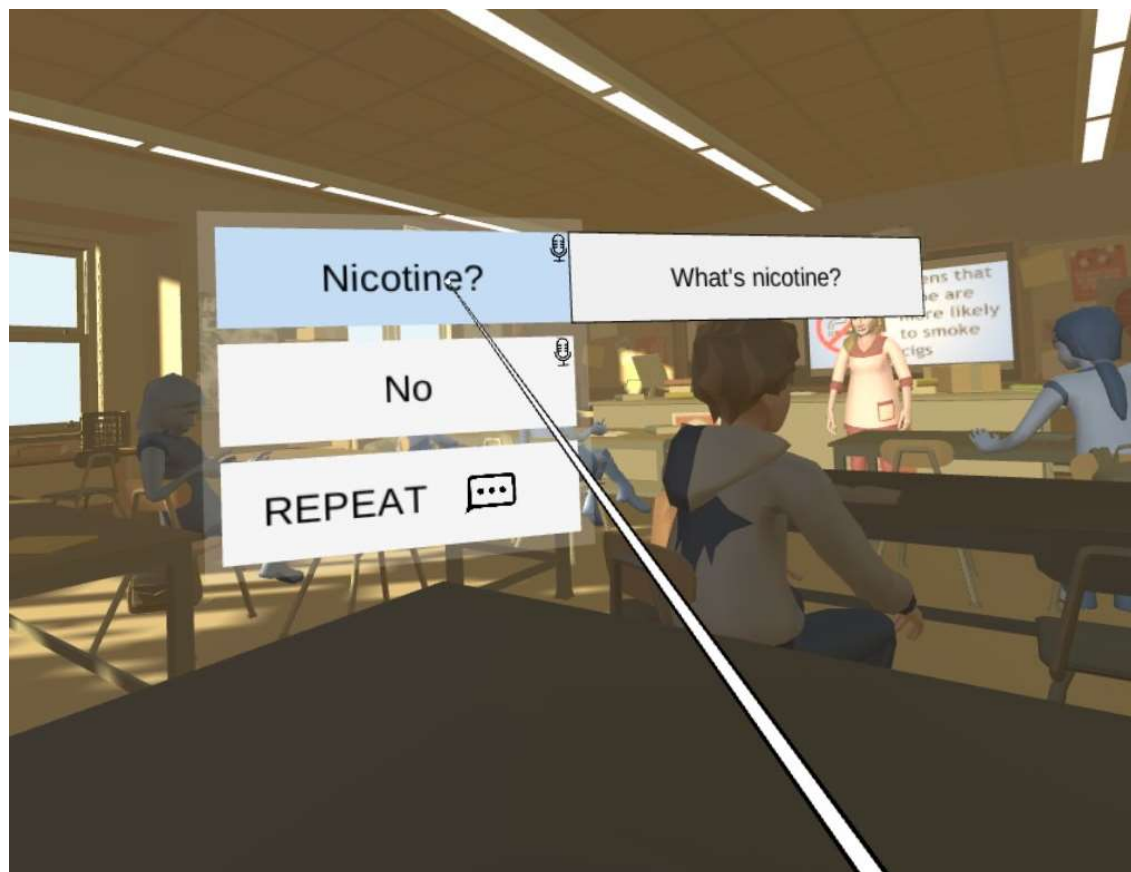




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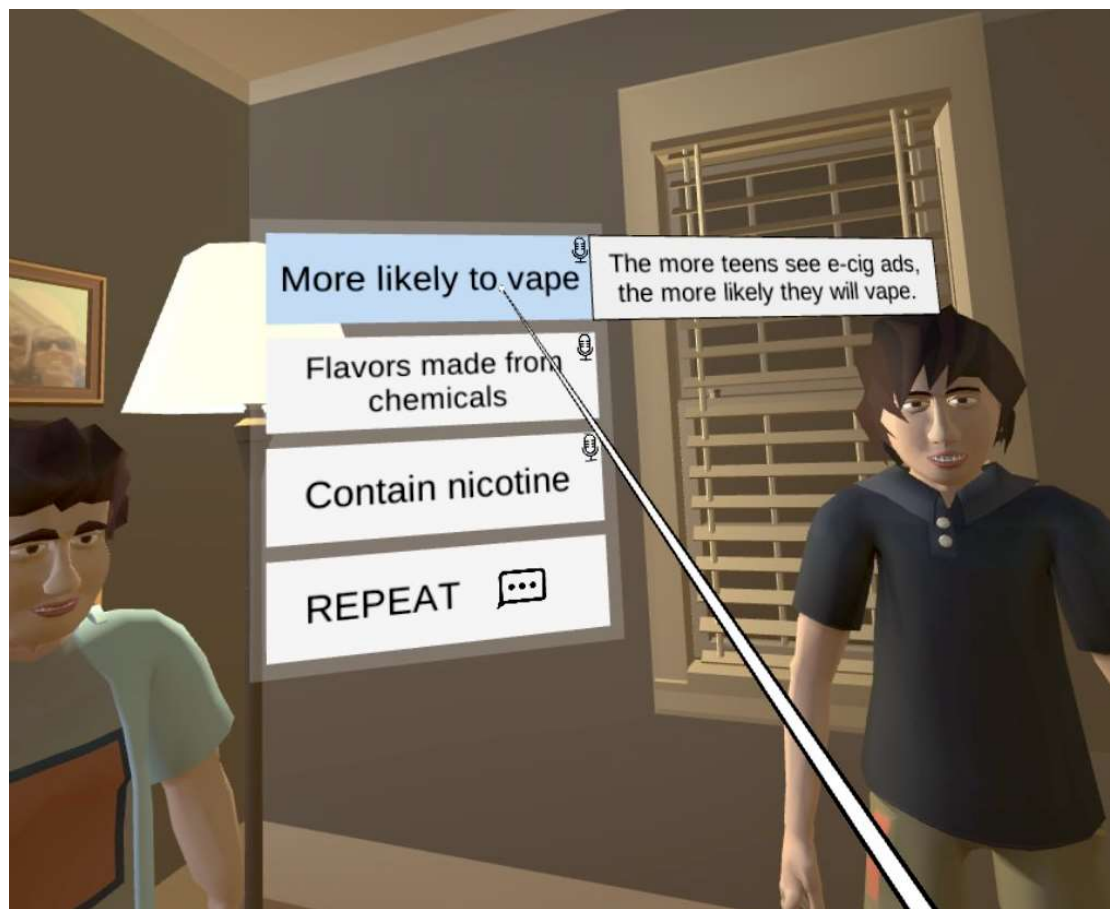




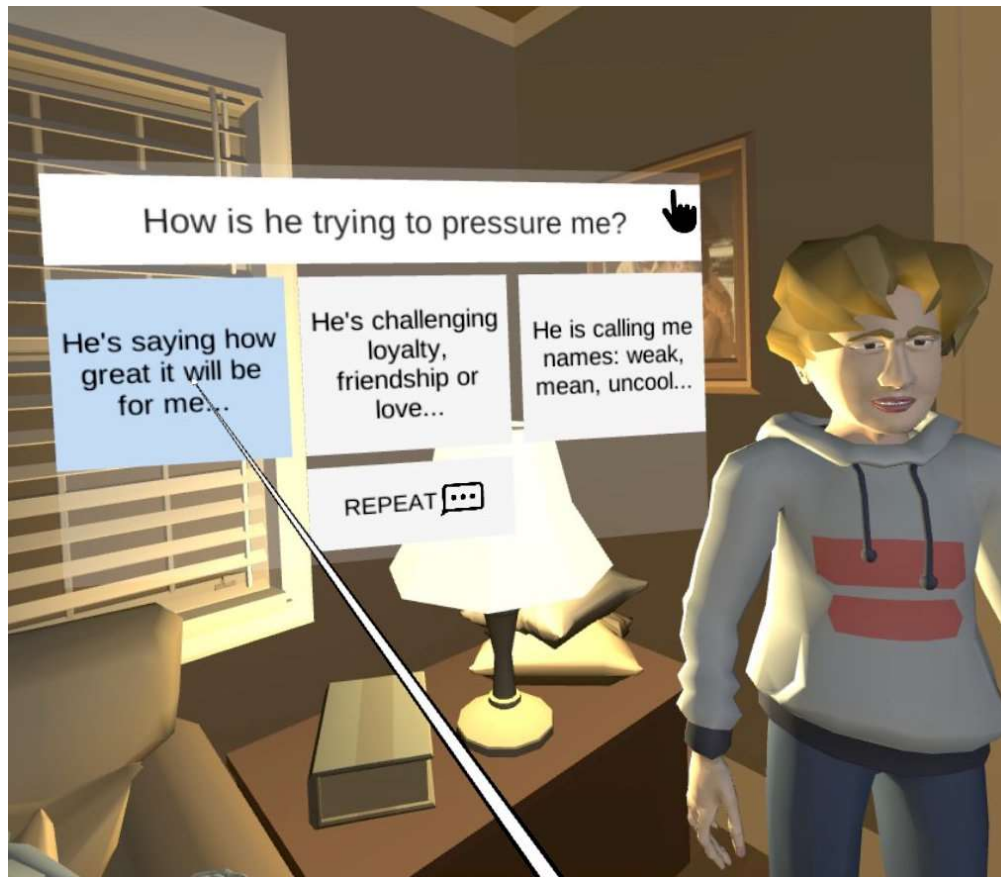


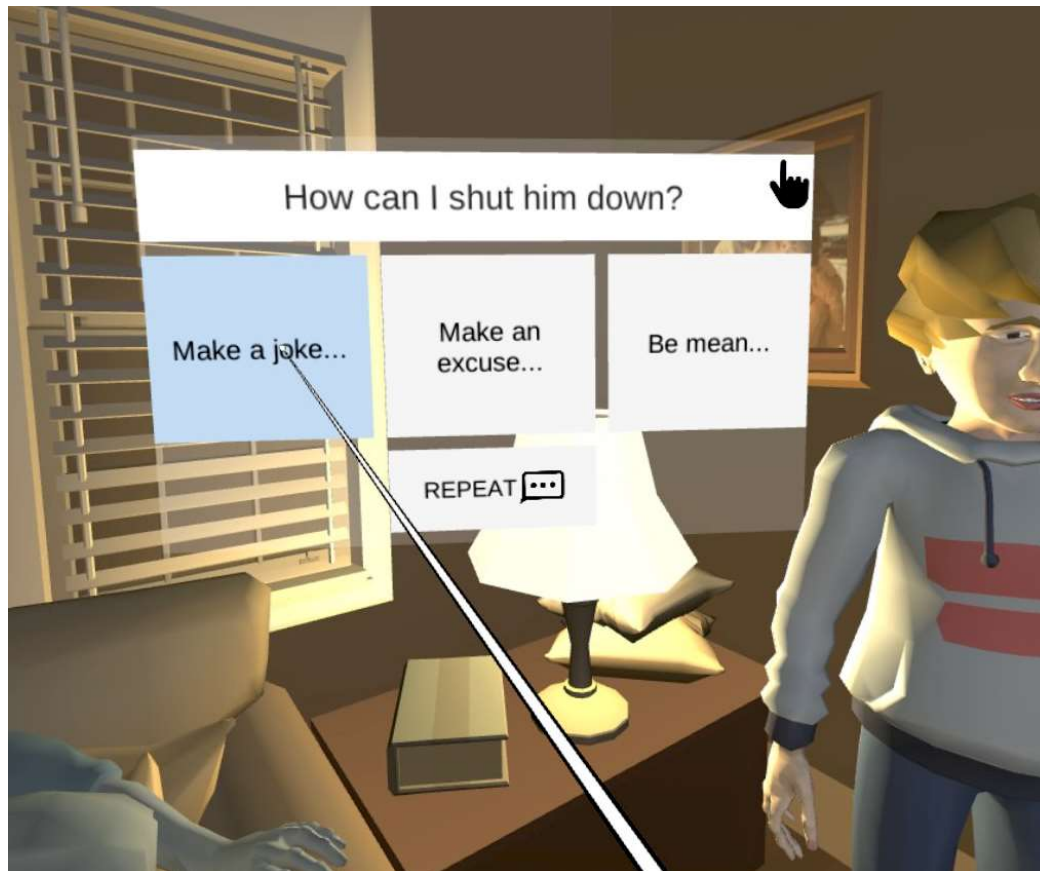














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Pilot Study and Preliminary Analysis

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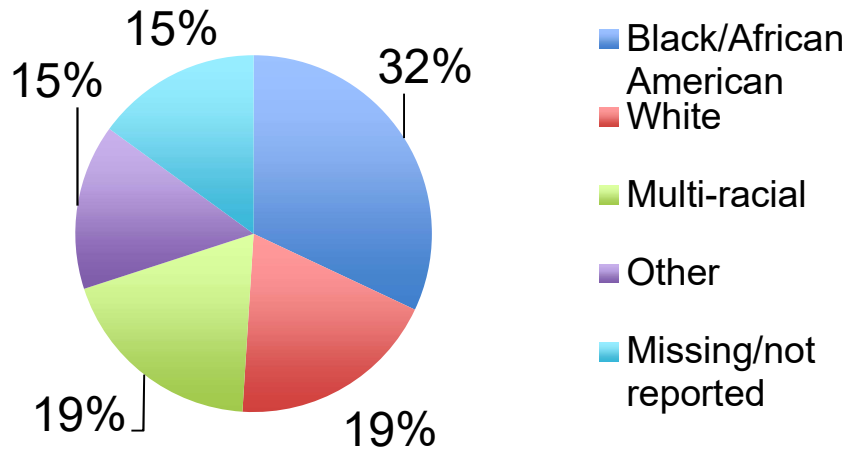


Demographics

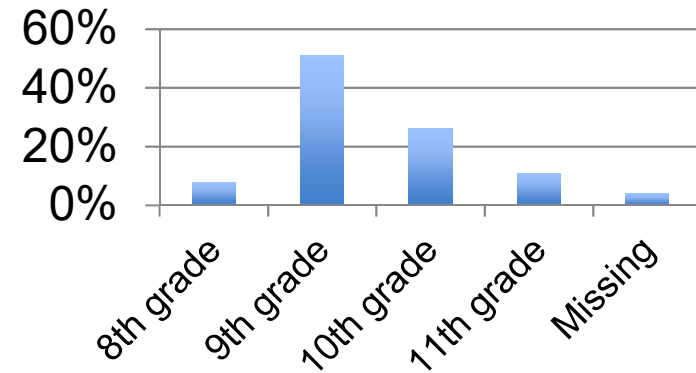
38
teens

ages 13-15
(mean age 14.2)

Race



Grade level



81%
male

51%
Hispanic

77%

heard of e-
cigarettes

70%

heard of JUUL

9%

reported
using JUUL
specifically

13%

reported ever
having used e-
cigarettes

60%

reported
that their
friends JUUL

SMOKESCREEN VR

1.5 hrs

Pretest

Posttest

KNOWLEDGE

KNOWLEDGE

INTENTIONS

INTENTIONS

PERCEPTIONS

PERCEPTIONS

ATTITUDES

ATTITUDES

SELF-EFFICACY

SELF-EFFICACY

SMOKESCREEN VR

1.5 hrs

Pretest

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SELF-EFFICACY

SELF-EFFICACY

Significant improvement in KNOWLEDGE

- E-cigarette vapor isn't just water vapor, it has lots of chemicals in it that can cause cancer.
- E-cigarettes almost always contain nicotine, the chemical responsible for addiction.
- Being addicted to nicotine as a teen can rewire your brain to become more easily addicted to other drugs.
- Companies that sell e-cigarettes target teens specifically by selling candy and fruit flavors.
- Teens who vape are **THREE** times more likely to smoke cigarettes **ONE** year after they start.
- Flavors used in e-cigarettes are made from chemicals can cause cancer and other diseases.

Significant reduction in players INTENTIONS to JUUL one year from now

How likely is it that you will be JUULing
one year from now?

Significant change in teens' PERCEIVED HARM of using e-cigarettes/JUUL

How much do you think people harm themselves when they JUUL some days but not every day?

How much do you think people harm themselves when they breath in other people's JUUL vapor?

How much do you think people harm themselves when they JUUL?

Notable changes in teens' ATTITUDES about JUUL

Is JUULing less harmful, about the same, or more harmful than smoking normal cigarettes?

Do you think people who JUUL have more or less friends?

Summary

- Game provided opportunity for skill building and practice
- Changes in knowledge, intentions and perceived harm, attitudes
- No significant change in self-efficacy to refuse, but teens already had high self-efficacy going in
- Teens enjoyed the game, felt highly immersed in the experience, would make choices in real life like they did in the game



Thank you!



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