

VR ACTION LAB
BRIEFING BOOK

PREVENTING TEEN BULLYING

CHALLENGES AND OPPORTUNITIES

TABLE OF CONTENTS

INTRODUCTION	3
YOUR MISSION	4
WHAT IS BULLYING	6
Definition	
Types of Bullying	
Prevalence	
WHO IS AFFECTED	9
Target	
Perpetrator	
Bystander	
Ethical Considerations	
EMPOWERING BYSTANDERS	13
Why Bystanders Don't Intervene	
Intervention Tactics	
BULLYING PREVENTION PROGRAMS	16
Designing Intervention Curricula	
Media Challenges	
ADDRESSING THE EFFICACY GAP	21
ENDNOTES	24

INTRODUCTION

VR Action Lab (VAL, for short) is an invitation-only media making program resulting from a collaborative partnership between Google Daydream Impact, Screenwriters Colony, and Harmony Labs.

Its aim is to produce powerful virtual reality (VR) experiences that develop the medium's capacity to make change on one important social issue. The focus of the program's first iteration, VAL 1.0, is teen bullying. You've been selected to participate and we can't wait to get started!

You and your fellow media makers will create VR pieces that together form a learning experience to address teen bullying in middle schools. This learning experience will engage students as "active bystanders" and help them take skillful action in difficult situations. An external partner will help pilot the experience in schools and informal learning environments in the fall of 2017. And through the support of Google Daydream Impact, the experience will be widely available thereafter.

This briefing book provides a "crash course" on bullying prevention. It includes best practices as well as opportunities where VR might offer critical improvements in the effectiveness of existing methods.

Let's jump in!

A person wearing a VR headset is shown from the chest up. The background is a composite image featuring a cityscape at night, glowing white lines, and a large, translucent hand reaching out from the left side. The overall color scheme is a light blue/cyan.

YOUR MISSION

Your mission, should you choose to accept it, is to create a compelling narrative that is highly engaging on an artistic level, while also representing crucial information about bullying and its prevention.

As part of VAL, you have the opportunity to design one VR piece as part of a larger learning experience that aims to help young teens become better at:

- **Identifying** bullying situations
- **Understanding** their responsibility to take action
- **Choosing** the best way to intervene

You will be part of a media maker cohort of three creatives, **supported by experts** and partners, including:

- Dr. Dorothy Espelage of the University of Florida, a White House and Congressional advisor on bullying prevention and large-scale quantitative researcher interested in the affordances of emerging media
- Dr. Susan Swearer of the The Empowerment Initiative, curriculum lead for Committee for Children and the leading advisor to Lady Gaga's Born This Way Foundation
- Mia Doces of Committee for Children, head of innovation and new media for her organization, which produces an anti-bullying curriculum used in 40% of American schools
- Jeremy Engle of Institute of Play, an expert in learning innovation and curriculum design focused on games and other interactives, including embodied learning and emerging tech
- John Fitzgerald and Matthew Niederhauser of Sensorium Works, an emerging VR production shop with interdisciplinary experience across film, theater, art and education, and experience supporting new VR makers

We're hoping for rich collaboration to produce the strongest possible work in VR and, ultimately, an effective intervention. The research explained in this book shows a path toward efficacy. Based on that research, we encourage you to create a VR experience that:

- Engages an audience **aged 13 to 14**
- Addresses the experiences of **bystanders**
- Collectively addresses both **online and offline bullying**

Within these broad parameters, and the creative constraints that emerge from our Discovery Workshop, you decide what to create.

If you have any questions before the project launch on July 13th, please contact the project lead, Mary Joyce, at mary@harmonylabs.org.

Good luck!

WHAT IS BULLYING

How can you use VR to create an authentic experience of modern-day bullying in all its complexity?

DEFINITION

We all have personal experiences of bullying as a bystander, perpetrator, and/or target. Yet a formal definition can still help. Though there are many ways to define bullying, any definition should invoke the following elements:

- **Intentional** perpetration of **harm**
- Imbalance of **power** between perpetrator and target
- **Repetition** of the harmful behavior

For the purposes of this project, bullying is defined as repeated physical, verbal, or relational attacks intended to cause distress or harm, which involve an imbalance of power.¹

Despite the term's popular use, teens today generally do not identify with the word "bullying," which is perceived as childish and which forces adolescents to label themselves as "victim" or "perpetrator." This dismissal can make it hard for teens to distinguish between petty "drama" and truly hurtful bullying.²

TYPES OF BULLYING

While adults popularly distinguish between offline bullying and electronic aggression (also called "cyberbullying"), teens typically do not draw this distinction. Bullying in one space is intertwined with others. Yet electronic aggression has a few distinctive characteristics:

- **Timing:** Negative comments, posts, or messages can be sent and received at any time of the day or night.
- **Scale:** Bullying content may reach large audiences over a prolonged period of time.
- **Anonymity:** Bullying online may be anonymous in nature, meaning that the target is known, but the perpetrator is not.
- **Disconnection Dilemma:** Teens often endure bullying online rather than logging off platforms on which bullying occurs for fear of being excluded from social interactions.³

Across digital and physical space, bullying may be divided into three types:

- **Physical:** Violence perpetrated against the body (e.g., a slap, punch or shove). This is the only type of bullying that cannot occur online and is most common in younger children.
- **Verbal:** Violence perpetrated through the use of words (e.g., an insult, put-down, threat or name-calling). This type of bullying can occur both online or offline and is most common in younger children.
- **Relational:** Violence that is perpetrated through the actual or threatened alteration of the target's community of peers (e.g., through social exclusion or by starting rumors). This type of bullying can occur both online and offline and is most common in the teens who are the focus of VAL.

These types may further be categorized as direct (physical, verbal) and indirect (relational).⁴ While direct bullying presupposes interaction between the target and perpetrator, indirect bullying perpetrates harm through a peer group.⁵

PREVALENCE

Not surprisingly, it is difficult to measure the prevalence of bullying. This is both because many— if not most—targets of bullying fail to report and because prevalence rates vary by age and location.⁶

Though bullying victimization rates vary across studies, a 2014 meta-analysis of 80 studies from around the world found an average of 35% of people age 12 to 18 reported either bullying or being bullied at some time in their lives.⁷

Rates of electronic aggression vary, but are consistently found to be lower than rates of offline bullying in schools.⁸

FOR MORE INFORMATION

Bazelon, Emily: “[Defining Bullying Down](#),” The New York Times, 2013

boyd, danah and Marwick, Alice: “[Bullying as True Drama](#),” The New York Times, 2011

The Why Factor: “[Bullying](#),” BBC World Service Radio, 2013

WHO IS AFFECTED

How can you use VR to develop a realistic cast of characters that prompt real-life teens' identification and empathy?

The roles assumed by teens in bullying situations can be interchangeable but tend to fall into the three distinct categories described below:

TARGET

Targets are peers bullied by perpetrators. They are often **perceived as different**. The criteria for difference is subjective and varies across communities, depending on norms and values. Yet—overwhelmingly and across communities—LGBT, immigrant, and disabled young people are particularly likely to be in this group.

Unlike the *Mean Girls* **gender** stereotype, girls are no more likely to engage in or be targeted by bullying than boys. However, they do feel disproportionately affected by hurtful behavior, such as rumors and exclusion.

When bullied, targets employ various **responses**, many of which fall into the following categories:

- **Actively** problem solving and/or seeking support
- **Passively** ignoring the problem
- **Aggressively** retaliating against the perpetrator

Active responses are usually most productive, while passive and aggressive responses perpetuate further bullying.

For those who are bullied, the **costs** are steep and long-lasting. Physical and psychological effects of being bullied include:⁹

- Anxiety and depression in youth and adulthood
- Academic problems and low achievement in school, followed by increased likelihood of poverty in adulthood
- Sleep difficulties, headaches and stomach aches
- Substance abuse
- Violent behavior later in life

PERPETRATOR

Perpetrators are the individuals who engage in harming behavior. They bully for a variety of reasons, related to the type of bullying they engage in.

Those who engage in direct bullying tend to be younger and **less socially skilled**. These children are often witnesses or victims of violence themselves, most often in their own family, and are not popular among peers.¹⁰ Interventions against direct bullying tend to be more effective than those against indirect bullying.

Among teens, being widely liked by peers is not the same as being popular, which is linked to power, prestige and influence. Aggression of this type of indirect or “Machiavellian” bullying requires **intelligent social manipulation**, including coercion and strong self-assertions. This behavior brings the social rewards of power and a chance to publicly demonstrate status while avoiding vulnerability.¹¹ Contrary to old stereotypes, boys and girls are equally likely to engage in indirect bullying.¹²

BYSTANDER

A bystander is an observer in bullying scenarios who is neither the initial perpetrator or target. They represent most students’ experiences of bullying. Bystanders are a crucial component of bullying incidents, which are social and **designed to be witnessed** by others. Girls and boys are equally likely to be bystanders and many feel uncomfortable in bullying situations, reporting feelings of anxiety and insecurity.¹³

When a bystander decides to intervene in the bullying scenario, they relinquish their initial role as a non-participant. A bystander can assume various roles in a bullying scenario. These include:

- **Assistant:** Participating in the incident by actively joining the perpetrator in their bullying behavior
- **Reinforcer:** Laughing at or watching the incident
- **Defender:** Supporting the victim verbally or physically
- **Outsider:** Moving away from the bullying situation, creating a small social sanction on the perpetrator by denying them an audience

Passive acceptance (outsider) and implicit or explicit support of the perpetrator (assistant and reinforcer) contribute to the perpetrator’s power demonstration.

Online, bystanders are more likely to become active participants by **sharing bullying content** than they are to be reinforcers offline by laughing and watching.¹⁴ This may be because sharing is not perceived as participating in the bullying incident.

If this sounds bleak, there is some good news: more than half of bullying situations (57%) stop when a peer intervenes, demonstrating the effectiveness of bystander intervention.¹⁵

ETHICAL CONSIDERATIONS

VR experiences can increase prejudice and stereotyping.¹⁶ Consequently, it may be tempting to avoid using real-life identity markers, such as gender, race or sexuality in your VR experience. For example, you may wish to portray the target as having green skin or being from Mars, rather than being from the actual targeted groups. However, bullying expert Dr. Dorothy Espelage cautions that a responsible and authentic bullying intervention experience must recognize the real risks experienced by real **targeted populations**.

Creating characters from targeted populations must be done with care. Virtual reality as a medium produces a much higher sense of realism and immersion than do movies or role play, and is capable of inducing reactions of real fear and panic in audiences.¹⁷ VR experiences from the perspective of the target can also **retraumatize** people who have been bullied. By contrast, experiences created from the perspective of bystanders are less emotionally charged and, as a result, may be more effective.

FOR MORE INFORMATION

Khamsi, Roxanne: “[Bullies Have a Trump Card](#),” Slate, 2016

Yamaha, Albert, Hayes, Mike and Ansari, Talal: “[The Kids are Alt-Right](#),” BuzzFeed News, 2017

Examples of video narratives that focus on safe environments and identity-based prejudice:

- Google Immerse VR: [Racial Identity](#)
- Google Digital Citizenship and Safety: [Manage Your Online Reputation](#)

EMPOWERING BYSTANDERS

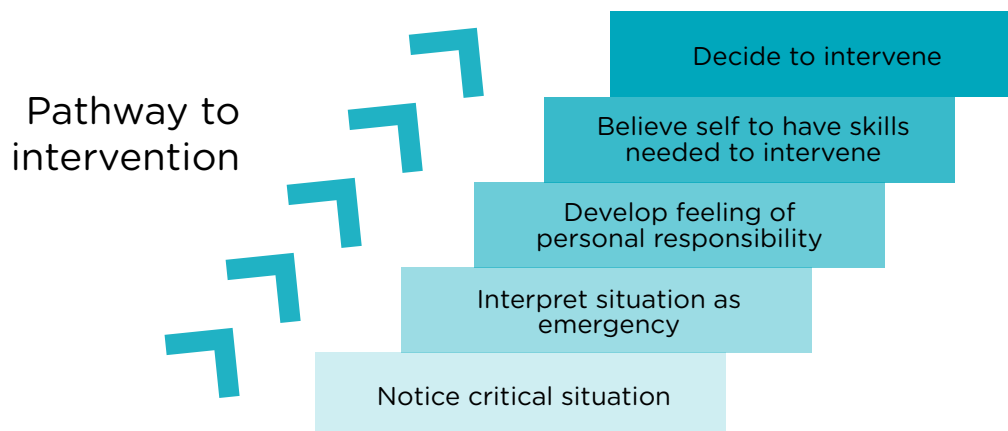
How can you use VR to help bystanders better identify bullying situations and take skillful action, in solidarity with the bullying target?

As in any instance of injustice, bystanders have tremendous power to stop bullying by removing the social payoff for the perpetrator and providing comfort to the victim. Research shows that schools and classrooms in which bystanders more frequently defend targets have lower rates of bullying.¹⁸ In studies, most children show attitudes against bullying, empathize with victims and report intentions to help.¹⁹ Yet, **most bystanders do not intervene**, and those that do are twice as likely to intervene on the side of the **perpetrator** as the target.²⁰

WHY BYSTANDERS DON'T INTERVENE

Below are the psychological steps that an individual passes through in deciding whether or not to intervene.²¹ Researchers have also identified various reasons why bystanders become stranded at one of these steps.

Figure 1: **How Bystanders Decide to Intervene**



Lack of emergency:

- The bystander interprets the situation as simple “drama,” harmless gossip, or a fight between equals.
- Bullying is perceived as part of the “natural order of things” where the weak get picked on by the strong.²²

Lack of personal responsibility:

- The bystander deems the target deserving of bullying due to previous misconduct.
- The target doesn’t belong to the bystander’s circle of friends.²³
- The bystander is raised with a culture of “minding one’s own business.” (Students who feel that their family—and particularly their friends—would expect them to intervene are more likely to do so.)²⁴

Lack of skills:

- The bystander fears that their lack of skills or status means that they cannot intervene without becoming a target as well.
- The bystander fears that involving an adult for support will exacerbate the problem.²⁵

INTERVENTION TACTICS

Below are suggestions for how a bystander can effectively intervene in a bullying incident. The methods are listed in ascending order, from least to most confrontational.²⁶

- **Deprive the Bully of an Audience:** By refusing to witness the perpetrator tormenting the target, the bystander removes the social payoff in popularity and perceived dominance.
- **Don't Validate the Bully:** If one cannot avoid witnessing the incident, then at least the bystander should not intervene or engage on behalf of the perpetrator. This means refraining from joining in the harmful behavior (name-calling, rumor-spreading, physical violence, etc.) as well as refraining from giving approving signs, such as laughing at the incident.
- **Comfort the Targeted Person:** In addition to actions that can be taken during the incident, a bystander can follow up with the targeted person after the incident to offer emotional support.
- **Contact an Adult:** Engaging the ecosystem beyond the perpetrator and target, a bystander can reach out to a trusted adult, such as a supportive parent, teacher, or school administrator.
- **Ask the Bully to Stop:** At the highest level of intervention, a bystander can verbally engage the perpetrator with the explicit aim of stopping the behavior. The wisdom of this type of intervention is highly dependent on the relative power of the perpetrator and bystander. Where the bystander is relatively powerful within the social system, this type of intervention can be effective and low-risk. However, when the bystander is relatively powerless, it can be very high-risk. In a worst-case scenario, the bystander may become a new target of bullying if they take this action.

FOR MORE INFORMATION

Bazelon, Emily: "[Don't be a Bystander](#)," Slate, 2013

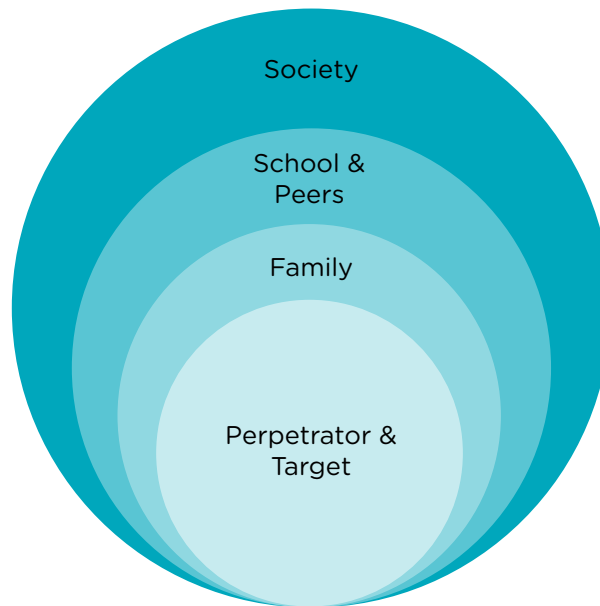
Pozzoli, Tiziana, and Gianluca Gini. "[Why do bystanders of bullying help or not? A multidimensional model](#)." The Journal of Early Adolescence 33.3 (2013): 315-340.

BULLYING PREVENTION PROGRAMS

How can your VR piece integrate into a learning experience that engages young people in the US and beyond?

Bullying occurs within a complex ecosystem that includes the perpetrator, target, and bystander and either facilitates or impedes the bullying dynamic.²⁷ For example, home environments, family values, and adult role models have a clear effect on bullying, as does the culture and values of the larger community in which the incident occurs.

Figure 2:
**The Social-Ecological
Model of Bullying**



Google will be involved in scaling the final learning experience and may decide to make it available to schools globally through its Expeditions and/or Trust and Safety programs. As a result, they are interested in finding ways to enable these experiences to be effective within a range of very different school and socio-cultural environments. Members of Google's Trust and Safety and VR teams will be available during the Discovery Workshop in July and throughout the process.

DESIGNING INTERVENTION CURRICULA

In an effort to maximize their impact, the VR pieces you create will be part of a larger learning experience that engages at least part of the ecosystem illustrated above. This learning experience will take the form of an **intervention program**. An intervention program—such as one designed to prevent drug use, HIV transmission, or some other harmful outcome—seeks to end harmful behavior.

The curriculum for an intervention program is usually broken into four to twelve **lessons** or sessions, each with their own theme. Each lesson includes some kind of hands-on activity, such as:

- **“Mindwarmer” Activity:** Facilitator-led activity that helps students connect the topic to their own lives, for example by asking them, “describe a time when you faced X” (e.g. peer pressure, bullying)

- **Exploratory Artifact:** Often a worksheet filled out by students individually or in groups to get them to engage more deeply with the subject matter (e.g. true/false statements, scenarios to consider and respond to)
- **Media Artifact:** A text or video (or VR experience) to read or view
- **Participatory Activity:** Discussion or role play
- **Reflective Activity:** Journal writing or other individual exercise

These lesson plans are usually written by educators and experts outside of the school and disseminated to teachers as a package of lessons with a guide. Unfortunately, intervention program curricula are often designed as a one-size-fits-all package that can be used in any classroom without meaningful support or training for teachers. Subsequently, the material is often a bit **dry**, dated and information-based, leaving students feeling somewhat **passive** and disconnected.

These are some best practices from curricula that avoid those pitfalls:

- **Respect Learning Styles:** Particularly when tackling sensitive and personal topics such as bullying, the educator needs to create a safe emotional space for students. All students have different learning strengths, styles and needs. Some may want to share their thoughts individually and not publicly, or in writing rather than verbally.
- **Positive Concepts:** Researchers have suggested that interventions should focus on positive concepts like healthy relationships and digital citizenship rather than starting with the negative framing of bullying.²⁸
- **Active Participation:** Teachers ask students to express opinions through physical movement (e.g., by lining up along a continuum) or to take action (e.g., by creating an action plan or public service announcement).²⁹
- **Trust-Building Activities:** Teachers may use activities, such as students taking turns leading one another through a space blindfolded, before taking on a sensitive topic or issue.
- **Low-Stakes Entry Points:** With sensitive topics, teachers may use hypotheticals, such as “What would you do if you saw someone bullied?” rather than the more pointed “What did you do when you saw someone bullied?” The former construction allows the student to respond in the space of possibility rather than report actual past action.
- **Anti-Authoritarian Design:** Adolescents greatly value autonomy and react against adult-delivered, rule-specific strategies. Abandoning transparent attempts at control (“You should,” “Say no”) in place of encouraging or suggesting language, presenting activities as choices, and ensuring positive feedback increase effectiveness.
- **Reframing:** Effective experiences do not necessarily suggest a clear solution to bullying, but help students think differently about social structures. For example, one intervention showed students that people have the ability to change and develop, and are not born perpetrators or targets.³⁰

In spite of these effective strategies, many teachers (particularly after elementary school) see their role as a teacher of content rather than someone attending to the social and emotional well-being of their students. (“I’m a math teacher, not a social worker!”) They feel nervous

about stepping out of their expertise and into the messy world of the students' lives, feelings and experiences. Additionally, teachers may worry about surfacing difficult or taboo subjects, and about giving over control to the students and their experiences.

MEDIA CHALLENGES

Curricula that rely on **emergent media** and technologies may face particular challenges in schools, such as:

- **Inadequate Access:** Nearly 90% of US districts have internet access in their schools. However, speed and bandwidth are significant issues for many. Most schools have computers available although there may be some competition for them by classroom teachers and students. Outside the US, access may be much lower.
- **Teacher Anxiety:** Some teachers are uncomfortable introducing new media and technology that they have not mastered. Introducing something cutting edge like VR might provoke this anxiety. Some teachers also worry that fun tools lead to distraction and even chaos among students.
- **Absence of Context:** Media and technology is least effective when it is not integrated into a thoughtful lesson design and embedded in activities. Unfortunately, many teachers simply turn on videos without adequate context, purpose or active viewing strategies.

Fortunately, active media viewing can address some of these challenges. Here are some best practices:

- **Delegating Character Focus:** When viewing, for example, a video portraying a conflict between three characters, a skilled teacher might assign different groups of students to carefully observe either character A, B or C. The teacher can then ask students observing the same character to meet as a group and present a short analysis on their character and their perspective on the conflict.
- **Prediction and Reflection:** Another active viewing technique is to regularly pause the experience and ask the class to predict what will happen next (verbally or in writing). Students can then compare predictions with what really happened, and discuss possible divergences.

In addition to these best practices, a learning designer from the Institute of Play will be present at the Discovery Workshop and throughout the process to help craft the support materials and lesson plans that will be necessary to present your VR experience in schools.

FOR MORE INFORMATION

Curriculum from Google's Be Internet Awesome, a multifaceted program designed to teach children in grades three through five the skills they need to be safe and smart online:

- [Digital Citizenship & Safety Curriculum](#)

Game-based curricula from Institute of Play that present students with inquiry-based complex problems for week-long in-school experiences:

- [Self on the Stand: What is the self? Curriculum for 9th grade](#)
- [Shark Tank: Can you get investors for your new business? Curriculum for 9th grade](#)

Social-Emotional Learning (SEL): Interventions that do not teach content (“Don’t bully”) but support students’ social and emotional intelligence, and a culture incompatible with bullying. SEL programs have had promising results with teens:

- Markman, Art, “[Can You Make Teens Less Aggressive?](#),” Psychology Today, 2013
- [The Collaborative for Academic, Social, and Emotional Learning](#)
- [InspirED](#): Collaboration between Facebook, the Yale Center for Emotional Intelligence, and Lady Gaga’s Born This Way Foundation

KiVa: A highly effective Finnish prevention program that has been implemented worldwide. Although the program does aim to mobilize popular kids, some results suggest that KiVa is primarily effective with younger students and physical bullying:

- [www.kivaprogram.net](#)
- Khamsi, Roxanne: “[Bullies Have a Trump Card](#),” Slate, 2016
- Kärnä, Antti, et al. “[Effectiveness of the KiVa Antibullying Program: Grades 1–3 and 7–9](#).” Journal of Educational Psychology 105.2 (2013): 535.

The Bully Project: A social action campaign inspired by filmmaker Lee Hirsch’s 2012 documentary Bully, which portrays five cases of teen bullying:

- [www.thebullyproject.com](#)

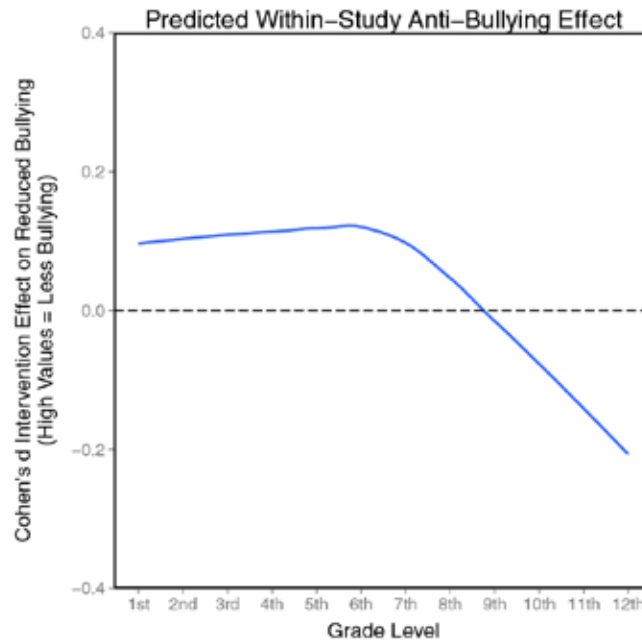
ADDRESSING THE EFFICACY GAP

How can the learning experience we create help close the efficacy gap?



Despite the development and use of dozens of anti-bullying programs around the world, a recent study by Yeager, Fong, Lee, and Espelage found that once students reach **8th grade** (age 13-14), anti-bullying programs drop to **zero efficacy** and, in some cases, even **increase** the incidence of **bullying**.³¹

Figure 3:
Drop in Efficacy of Anti-Bullying Programs



This means that current anti-bullying programs either do not stop bullying or, like the D.A.R.E. anti-drug program, actually increase the likelihood of bullying: the exact opposite of their intended effect (see diagram from Yeager et al., above).

The exact cause of this drop-off is unknown, but one reason may be that teens become **skeptical** of adults in general and the instructional nature of current anti-bullying materials in particular.

A further explanation may be found in the unique features of developing **adolescent brains**. A heightened sensitivity towards social rewards in the brain causes bullying to look attractive, while underdeveloped impulse control makes adolescents ignore consequences, even when they know better.³²

The fact that **relational** (indirect) bullying is also most common at this age makes it harder for teens to draw a line between what is or is not harmful, either as perpetrators or bystanders: Is this a vicious rumor that I am hearing? Is it just a juicy piece of gossip? What's the difference?

It is our hope that VR can help bridge this efficacy gap.

VR provides powerful immersive and emotionally affecting experiences. It also has appeal as an artifact because it is perceived as cutting edge. We believe that individuals that might be resistant to bullying materials presented in a classroom or on paper or video might be willing to engage with them when they are presented in VR. Finally, because a VR experience is a

private one (an observer does not know what the viewer is seeing on the screen), the viewers will be free to engage with the experience sincerely and thoughtfully, without being perceived as “uncool” by peers.

Emergent media affords new solutions to seemingly intractable problems. We are excited to see you develop creative VR solutions to these challenges and to support you in doing so throughout the VR Action Lab.

FOR MORE INFORMATION

Yeager, David Scott, Carlton J. Fong, Hae Yeon Lee, and Dorothy L. Espelage. “Declines in efficacy of anti-bullying programs among older adolescents: Theory and a three-level meta-analysis.” *Journal of Applied Developmental Psychology* 37 (2015). (Focus on pages 1-7)

ENDNOTES

The literature on bullying and bullying prevention is wide ranging and well developed. Please contact us for additional resources.

- ¹ Olweus, 1993 and Ttofi and Farrington, 2011
- ² Marwick and boyd, 2011
- ³ Kessel Schneider, Smith, O'Donnell, 2014
- ⁴ Yeager, Fong, Lee and Espelage, 2015
- ⁵ *Ibid.*
- ⁶ Petrosino, Guckenbarg, DeVoe and Hanson, 2010; Modecki, Minchin, Harbaugh, Guerra and Runions, 2014
- ⁷ Modecki et al., 2014
- ⁸ National Center for Education Statistics, 2015
- ⁹ Centers for Disease Control and Prevention, 2015; Gini and Pozzoli, 2013
- ¹⁰ Espelage, Bosworth and Simon, 2000; Duncan and Owens, 2011; MacKinnon-Lewis, Starnes, Volling and Johnson, 1997; Baldry and Farrington, 2000; Schwartz, Dodge, Pettit and Bates, 1997; Strassberg, Dodge, Pettit, Bates, 1994; Duncan, 1999; Wolke and Samara, 2004
- ¹¹ Hanish, Bradshaw, Espelage, Rodkin, Swearer and Horne, 2013
- ¹² Yeager, Fong, Lee and Espelage, 2015
- ¹³ Polanin, Espelage, and Pigott, 2012
- ¹⁴ Dillon and Bushman, 2015
- ¹⁵ Kärnä, Voeten, Little, Alanen, Poskiparta, Kaljonen, Salmivalli, 2011; Hawkins, Pepler and Craig, 2001
- ¹⁶ Fox, Arena, and Bailenson, 2009 and Guadagno, Blascovich, Bailenson and McCall, 2007
- ¹⁷ Fox, Arena, and Bailenson, 2009
- ¹⁸ Jones, Mitchell, Turner, 2015
- ¹⁹ Pozzoli and Gini, 2013
- ²⁰ Palacios, 2016; Craig and Pepler, 1997; Salmivalli, Huttunen and Lagerspetz, 1997
- ²¹ Latané and Darley, 1970
- ²² Yeager, Trzesniewski and Dweck, 2013
- ²³ Forsberg, Thornberg and Samuelsson, 2014

²⁴ Pozzoli and Gini, 2013

²⁵ Polanin, Espelage, and Pigott, 2012

²⁶ Born This Way Foundation, 2017

²⁷ Espelage, 2016. Orpinas and Horne, 2006

²⁸ Marwick and boyd, 2011

²⁹ Facing History and Ourselves. Teaching Strategies: Four Corners and Barometer

³⁰ Yeager, Trzesniewski and Dweck, 2013

³¹ Yeager, Fong, Lee and Espelage, 2015

³² Swearer, Martin, Brackett, Palacios II, 2016

Harmony Labs is on a mission to understand media influence at scale, and to experiment with using media to support an open, resilient, democratic society.

Harmony Labs runs an accelerator that provides capital, community and other resources to individuals and early-stage companies, as they build technology that advances our understanding of media influence. And we work with media makers, publishers, tech companies, advocacy groups, researchers and others to address pervasive challenges, like detecting persuasion online or optimizing content to cross partisan divides.

Harmony Labs is a 501(c)3 based in New York City. We have partnered with and/or received funding from leading organizations like Google, The Ford Foundation, The Corporation for Public Broadcasting, MTV, Mozilla, Columbia University and the Defense Advanced Research Projects Agency (DARPA).

Special thanks to Dr. Dorothy Espelage, Raul Palacios and Jeremy Engle. Design by Chris Yong-Garcia.

harmonylabs.org
hello@harmonylabs.org



Except where otherwise noted, this work is licensed by Harmony Labs Inc. under <https://creativecommons.org/licenses/by-nc-sa/4.0>