

# Communicating the Learning Sciences Through Entertainment: The Next Frontier



**Nov. 24, 2020**

The [Learning Sciences Exchange \(LSX\)](#) is a cross-sector fellowship program designed to bring together journalists, entertainment producers, policy influencers, researchers, and social entrepreneurs around the science of early learning. As part of the program, our fellows contribute to various publications, including New America's EdCentral blog; BOLD, the blog on learning development published by the Jacobs Foundation; and outside

publications.

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As both a trained scientist and Hollywood director, I recognize two competing approaches for communicating the results of lab research to the public. On the one hand, I believe in the benefits of academic journals and panels, books, talks, and press releases. These tools are absolutely crucial for scientists to speak to other scientists and to get a better understanding of the learning sciences. On the other hand, I also believe that if we want our research and science to have the broadest possible impact, we should look at nontraditional approaches to reach the audiences we truly hope to influence in the world of early learning: parents and policymakers.

### **Scientists as Activists**

Regrettably, when I speak to most fellow academics, there is a belief that permeates their mindsets that their life's work will only reach a small handful of people. We scientists must shift our thinking and become more aggressive in making sure our work is known. After all, if I have found the cure to cancer but nobody knows about it, does it matter that I have the solution? It is absolutely imperative that we begin to think of ourselves not just as scientists but also as activists. We must become actively engaged in promoting our work to help parents and policymakers fix their very real problems that we have solutions for. Please do not misunderstand me: I am not asking us to abandon our research to become marketing machines; what I am asking us to do is no longer only rely on our workplaces' public relations offices to send out press releases about our work. As scientists, I believe we have to be more creative in getting our work seen—by thoughtfully integrating our research into mainstream media.

This approach is well known in children's media. *Sesame Street* and *Blue's Clues*, for example, integrate academic research into the design of their shows to positively influence children's learning. But it is little known that this approach is also taken in *adult* media primarily outside of the United States. Brazil, South Africa, India, Egypt, Columbia and other countries have developed shows ranging from soap operas and dramas, to comedies and YouTube series, that reach as much as 80 percent of their populations in some cases. And the results often are not only fascinating, but stunning: awareness of research, attitude shifts, and behavior changes have altered social outcomes in meaningful ways on multiple issues ranging from fertility rates to HIV/AIDS and beyond. In Brazil, a popular soap opera that relies on educational messaging about family planning is credited with helping to reduce the fertility rate from 6.15 children per woman to 1.8, for example.

In the United States, when television shows attempt to integrate the sciences into their scripts, the results are likewise impressive. *Grey's Anatomy*, for example, has aired breast cancer awareness episodes which have increased awareness by 50 percent among viewers, increased real-world breast cancer screenings by 1,000 percent, and anecdotally saved real women's lives. However, despite the success of adult-oriented shows that do integrate research and education into their scripting, this approach is the rare exception and not the rule in America. One reason why is that scientists are not more vocal about the results of their work and therefore Hollywood producers—many of whom want to help improve society through using their shows as platforms—do not have the information that they would love to showcase in their shows. (Yes, there are many caring producers, writers, and directors in Hollywood regardless of the popular perceptions about the industry as place that only cares about showcasing sex, violence, and sensationalism for profits.)

## **Scientists as Producers**

Evidence shows us that the language of the 21st century is not academic papers or books, but rather film, or more specifically, media. Media can be a tool that is used to positively influence attitudes and behaviors, and change policies in a very powerful way. As scientists, if we can learn how to translate our research into contemporary language that parents and policymakers can understand, we can begin to make real strides. If we can creatively learn how to market our work through YouTube, Instagram, public service announcements, television shows, and even in feature films, we can reach audiences where they are and give them ideas, answers, and solutions to their challenges based on our peer-reviewed, empirical research. In other words, if we can learn to better understand how to communicate our work—if we can learn how to become “producers” who can package our research in ways that are digestible for the public—we can influence profound changes in society. We will no longer have to sit back and hope others will advance our work, relying on a reporter who writes an article about our research, an activist or influencer who happens to come across our work, or an enlightened politician who is interested in the science we discover; we can advance our work ourselves.

For example, through the [Learning Sciences Exchange](#), I had the opportunity to work with Lisa Scott, a neuroscientist from the University of Florida, on translating her groundbreaking research on language development for infants into a comedic public service announcement. The first question we asked was, what one piece of science do we need to clearly communicate in this PSA? The second question we asked was, who is the audience? And the third question was, what is the most unique story we can tell based on the research that will be engaging to our audience? Once we answered those questions, we came up with the concept of [2 Grandpas, 1 Baby](#), a humorous multiracial family featuring two grandfathers who had a baby book battle contest to win the affection of their infant granddaughter, Little Josefina.

Both grandfathers read to Little Josefina in the way normal people presume they should read, but were quickly corrected when their adult children discovered they were doing it all wrong and instead told them to do it based on the science, which they quickly explained.

For me and for Scott, making the PSA itself was just as interesting as designing its content. We had to write a script that met both academic standards and Hollywood standards. That is, it had to thoroughly communicate the research in a genuine way but also had to be entertaining and very funny. Once we did that, we had to cast the right actors for each role. We worked with the Screen Actors Guild (SAG) to choose veteran actors for the two grandpas—we chose a comedian who was a regular on *Seinfeld* and an actor who plays the voice of Obi Wan Kenobi from *Star Wars: Clone Wars*. We also put out a casting call for the role of the mom, and after 303 actresses auditioned, we landed on one who was previously in the movie *LaLa Land*. (I cast myself to play to the dad in the PSA, as I have previously worked on sets like HBO's *Ballers* and Fox's *Lethal Weapon*.)

After our casting was set, we scouted for a location to film. We tried the big studios—Warner Bros and Paramount—but they did not have a standing set that matched our vision. So we decided to shoot “on location,” or in the real world, by renting out a home. Once we had our location set, we worked with my cinematographer to design what the “look and feel” of the PSA would be: how we would frame the scenes and shots, which cameras and lights and angles we would use, and how we would block (or choreograph) the actors’ movements. To support this whole operation, we hired a small production crew of 25 people to decorate the set, create the lighting, design wardrobe and costumes, apply makeup to the actors, and the like. By the time we were ready to film our PSA, we felt prepared—and spent 10 hours filming a clip that turned out to be three minutes long (an average 10-12 hour day in film equates to about three or four minutes of actual screen time audiences will

see). We showcased the results in August at the [Learning Sciences Exchanges Summit](#).

## **The Next Frontier of Science**

As scientists in the 21st Century, we have a unique opportunity to use communication tools previous generations of researchers did not have access to. We can reach audiences they could not reach. We can do things they could not do. It is our historic opportunity to push science to the next frontier—the media frontier—so that our work can have the outsized impacts we know it's capable of achieving. It is not a question of if this will happen. It's a question of whether we will be part of this new wave of research hitting parents and policymakers in ways that can immediately benefit them, and our entire society. Yes, many of us will need to be trained in how to do this and embark on some new learning, but as scientists our careers—our whole lives—are about exploration and discovery. We can do this if we choose to do this, and we can make change happen in the world if we first make change happen within ourselves.