

2018



OVERVIEW

What to expect during our innovative science communication workshops.



SCIENCE//COMEDY//OUTREACH//ENTERTAINMENT

REAL EXPERTS. REAL FUNNY.
Our workshops develop STEM professionals into engaging speakers through stand-up comedy.

SCIENCE RIOT, INC
Is an educational 501(c)(3) nonprofit organization promoting public enthusiasm for science.



Produced By

Kyle Sanders & Dr. Niki Spahich

Contacts:

kyle@scienceriort.org
 niki@scienceriort.org
 @PeerRevue
 fb.com/PeerRevue
 www.scienceriort.org

About The Program:

The Peer Review was inspired by a similar series in the UK known as Bright Club which takes place at 18+ universities and is billed as a “thinking person’s comedy night”. Our syllabus was developed with help from the University College London and professional comedians to adapt this unique experience for an American audience.

About US:

Science Riot, Inc. is a 501(c)(3) educational nonprofit corporation that produces and consults on informal science outreach events. Our goal is to create a public that is enthusiastic about science through innovative programming, comedy, outreach, and entertainment. In our first year (June 2015 to June 2016) our staff organized, hosted, moderated, and presented at twenty five science outreach events in Colorado - reaching a combined audience of 2,700 science enthusiasts. Now we instruct STEM professionals in science communication.



SCIENCE RIOT

Our founding goal was to give scientists a microphone. But after working with dozens of science outreach programs we realize that simply providing science professionals a soapbox wasn’t enough. A majority of scientists have no public communication training and are apprehensive about engaging with the adult public as a result, which is why we developed a workshop series that teaches them the impossible - how to be funny on purpose!

During this crash-course in comedy writing and performance, 6-8 scientists develop a short presentation about their favorite scientific topic that they will then deliver on stage for the paying public. The result is a brainy and entertaining event that attracts a diverse audience from outside of the science bubble.

We encourage participation from ‘scientists’ in the broadest sense of the term; anyone in a STEM-adjacent profession (and even the humanities) are welcome to join. We first focus on how to make their expertise relatable and interesting, then find the humor in their topic without undermining the seriousness of their profession.

Over the past two years we have worked with hundreds of scientists and institutions like the Denver Museum for Nature and Science and the Space Foundation. Our participants gained the confidence to perform live for audiences of 200+ attendees and do fantastic. Afterwards they look like they had just been skydiving, but it can be an empowering and life altering experience.

Whether you work in academia or a STEM profession, you are an expert. You are uniquely qualified to share your passion and knowledge about topics - and the public wants to hear it! We hope you will join us and become an engaging voice for science!

Sincerely,

The Science Riot Team

You can find us in:

Chicago - Denver - Colorado Springs - Little Rock



AND ONLINE AT PEER-REVUE.COM

SCIENCE AS POP CULTURE

WHY YOU SHOULD EMBRACE INFORMAL SCIENCE OUTREACH

“ WE MUST ALL PLEDGE OURSELVES TO RECOVERING ACCESSIBLE SCIENCE AS AN HONORABLE INTELLECTUAL TRADITION.”

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Even before ‘alternative facts’ and ‘fake news’ drove thousands of introverted scientists to protest in the streets, only 75% of Americans agreed that the Earth revolved around the sun. Only 50% believed that humankind evolved. Then there are the 32% of Americans who think astrology is a real science, a group which might have a lot in common with and the 32% that said it’s “not important to know about science in their daily life”².

Science popularization matters. Engaging programming, passionate lecturers, entertaining teachers - these are what draw the otherwise disinterested public back towards science.

Nearly half of well-intentioned scientists report that communicating their research to the public is a duty, but they have a lot of excuses for not participating themselves and many shared an apprehension about fielding questions from the lay public³.

Only 21% of scientists report participating in outreach for the adult public, and another 29% worry that those scientists are perceived as uniformly inept at communication. 50% of scientists

describe themselves as “not well equipped”, or worse, to discuss their research with a lay audience and 73% report having no training in public speaking². To sum it up, most of them are terrified of public speaking and they will conduct these kinds of studies to prove just how terrifying it is.

But informal outreach programs work, because the public dialogues they create have been shown as an effective way to change attitudes about science. Audiences understanding of the given topic shows significant increases afterwards⁴. Even when talking about a controversial topic like genetic engineering, nonscientists gained an appreciation and empathy for scientists, and the reverse was true⁵.

Studies with undergrads showed an increased confidence and aptitude for science communication after participating⁴. And one of the greatest predictors of engagement in science outreach by scientists is past participation³.

“ IT HAS BEEN RELATIVELY EASY TO MAKE THE FIRST PART OF THE ARGUMENT THAT MONOLOGUES SHOULD BECOME CONVERSATIONS. IT HAS BEEN HARDER TO CONVINCE THE INSTITUTIONS OF SCIENCE THAT THE PUBLIC ARE NOT THE PROBLEM.”

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This is why we have developed the PEER REVUE, a program which incorporates comedy writing and performance workshops, developed with help from real comedians.



Our goal isn't just to put on a great outreach program for our audience, but to develop engaging and confident science communicators.



SOURCES:

- [1] Carl Sagan, *A Demon Haunted World*.
- [2] The Royal Society. 2006. *Science communication: Survey of factors affecting science communication by scientists and engineers*.
- [3] Besley, J., Hwa Oh, S., Nisbet, M. 2013. Predicting scientist' participation in public life. *Public Understanding of Science*;
- [4] Ahmed, DeFino, Connors, Kissack, & Franco. 2014. *Science Cafes: Engaging Scientists and Community through Health and Science Dialogue*. *Clinical and Translational Science*, 7(3).
- [5] Zorn, Roper, Weaver & Rigby. 2012. Influence in science dialogue: Individual attitude changes as a result of dialogue between laypersons and scientists. *Public Understanding of Science*, 21(7).
- [6] Stilgoe, Lock, & Wilson. 2014. Why should we promote public engagement with science? *Public Understanding of Science* 23 (1).

BUT WHY COMEDY?



HAVE YOU EVER BEEN TO AN ACADEMIC CONFERENCE AND FALLEN ASLEEP DURING THE KEYNOTE? US TOO.



There is a persistent myth among scientists that entertainment value comes at the cost of good science content. But the research and all of our experiences have proven that engaging an audience is not a zero-sum game. With training, it is possible to be both funny *and* factual.

The use of humor in presentations is recommended by social scientists to “enhance the likeability”¹ of scientists; it promotes trust, improves

presentation² and persuasion³ and can be used to break the ice, build rapport, reduce formality, demonstrate individualism, give contemporary relevance, provide critique, and also make content more memorable⁴.

Once a scientist learns to have fun with an audience, it’ll forever change how they communicate professionally and personally.

SOURCES:

- [1] Goodwin, Jean & Michael Dahlstrom. 2014. *Communication strategies for earning trust in climate change debates*. *WIREs Clim Change* 5.
- [2] Reershemius, Gertrud. 2012. *Research cultures and the pragmatic functions of humor in academic research presentations: A corpus-assisted analysis*. *Journal of Pragmatics* 44.
- [3] Xu, Zhen. 2016. *Laughing Matter: Humor Strategies in Public Speaking*. *Asian Social Science* 12(1).
- [4] Lee, David. 2006. *Humor in Spoken Academic Discourse*. *Journal of Language, Culture and Communication* 8(3).

WORKSHOPS



A COMEDY CRASH-COURSE

Our hands-on lessons are each 1.5 hours long and build up towards a 5-10 minute comedy talk.

SCIENCE FIRST

Our first lesson uses exercises in improv comedy to find perspectives that make otherwise boring topics relatable and interesting for normal people.

BE FUNNY

This lesson focuses on microphone techniques and performance feedback from local professional stand-up comedians.

TALK IT OUT

The key to connecting with an audience is to have a conversation, not deliver a speech. This final lesson provides feedback on their comedy-talk.

PEER REVIEW

The workshops are spread across three weeks to leave plenty of time for writing. Our team is available for individual coaching every step of the way.

ON STAGE

We conduct a sound check and warmup rehearsal before the main event to build confidence on stage. We'll even pay for a drink - after your set, of course!



SYLLABUS

OUR 12-STEP GUIDE TO COMEDY WRITING

A 22-page workbook is provided for each of our participants that walks them through the entire writing process.

This guide distills all of our lessons learned from a variety of sources; especially the University College London. We took plenty of notes from their successful UK program and built on it by consulting with professional comedians before refining the process over two years of workshops with hundreds of scientists.

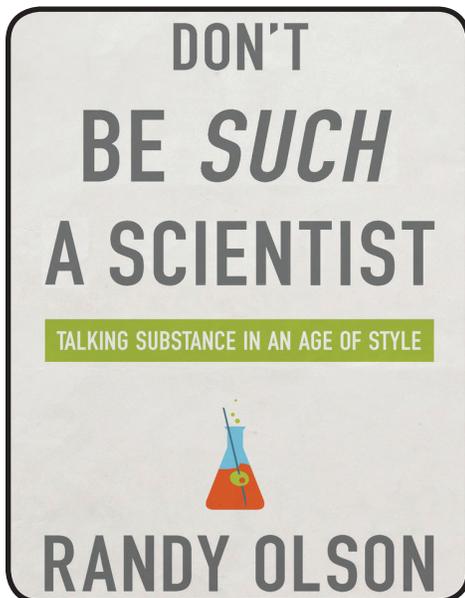
Believe it or not, being funny is actually the easy part. But we're not

going for cheap laughs; we want our experts to make their *topic* entertaining and interesting.

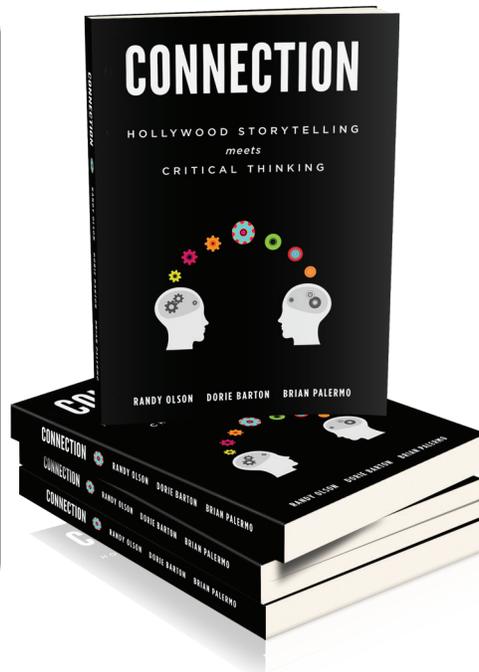
We ask that scientists arrive with a subject in mind that they want to teach to the audience. The workbooks integrate with our workshop exercises to explore these ideas. We now know that even the most esoteric topics can make for great comedy!

However, comedy writing is a personal endeavor and many of our scientists have joked that they spent more time drafting their comedy talk than their actual dissertation.

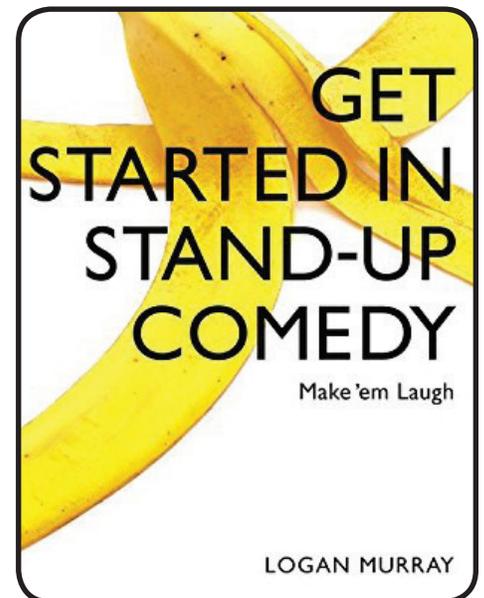
FURTHER READING:



Don't Be Such A Scientist
by Randy Olson



Connection by Randy Olson,
Dorie Barton, and Brian Palermo



Get Started in Stand-Up Comedy
by Logan Murray



SCIENCE

COMEDY

OUTREACH

