

# Research in Action Podcast Instructor Guide

Use the following episode description, learning objectives, guiding questions and activity suggestions to more easily include “Research in Action” podcast episodes as a supplemental resource for your course.

# Dr. Kyle Niemeyer on Open Science [34:19]

## Research in Action - Episode 56

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### Podcast and Episode Information

“Research in Action” is a weekly podcast about topics and issues related to research in higher education featuring experts across a range of disciplines.

On this episode of the podcast, the guest is Dr. Kyle Niemeyer, an Assistant Professor of Mechanical Engineering in the School of Mechanical, Industrial, and Manufacturing Engineering at Oregon State University. His research focuses on developing new computational tools to better simulate important physical phenomena, including combustion, turbulence-chemistry interactions, and fluid dynamics. Kyle is also an advocate for open science and reproducibility in computational science.

*Segment One* [00:00-12:27] - In this segment, Kyle shares about his current research and how it influences future projects.

*Segment Two* [12:28-23:07] - In this segment, Kyle discusses his passion for open science.

*Segment Three* [23:08-34:19] - In this segment, Kyle shares about his experience as an editor with several open science journals.

*Bonus Clip #1* [00:00-04:35]: Perceived Drawbacks of Open Science

*Bonus Clip #2* [00:00-02:26]: Dr. Kyle Niemeyer’s Podcasting Experience

*Bonus Clip #3* [00:00-04:26]: Standardizing Data and Software Citations

Show notes and a transcript for this episode can be found at:

<http://ecampus.oregonstate.edu/research/podcast/e56/>

### Learning Outcomes

By listening to this episode, students will be able to:

- Explain the three pillars of open science
- Describe some of the accessibility challenges associated with open science literature
- Cite resources for open science work
- Review suggestions for journal editors regarding peer reviews
- Discuss the perceived drawbacks of open science

### Guiding Questions for Listening

- What appear to be some of the funding considerations involved in Dr. Niemeyer’s research?
- According to Dr. Niemeyer, what are some factors that might affect a researcher’s progress on a project?
- What does Dr. Niemeyer mention is a benefit of his position as a faculty member?
- What does Dr. Niemeyer explain contributes to being a successful faculty member?
- What appear to be some of the challenges associated with accessing “open access” literature?
- What does Dr. Niemeyer explain is a “very practical motivation” with regard to reproducibility in open science?
- What recommendations does Dr. Niemeyer offer to those looking to become more involved in open science?
- What advice does Dr. Niemeyer offer to editors regarding participation in peer reviews?
- According to Dr. Niemeyer, what are some of the perceived drawbacks of open science? (See also, Bonus Clip #1)
- What does Dr. Niemeyer explain about the importance of citing software utilized during a research project? (See also, Bonus Clip #3)

## Possible Activities

- Ask students to visit the show notes for this episode (<http://ecampus.oregonstate.edu/research/podcast/e56/>) and look at an additional resource that is linked in connection with this episode. Students can write a short review of that resource to share with their peers.
- Ask students to visit the show notes for this episode (<http://ecampus.oregonstate.edu/research/podcast/e56/>) and post an additional resource connected to the content of the episode in the comments section.
- Have students share questions that are raised for them based on the content of this episode. What would they ask Dr. Kyle Niemeyer if they could?

## Suggested Citation (APA, 6th edition)

Linder, K. (Producer/host). (2017, April 24). *Dr. Kyle Niemeyer on Open Science* [Audio podcast]. Retrieved from <http://ecampus.oregonstate.edu/research/podcast/e56/>

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## Notes

## About the Research in Action Podcast

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“Research in Action” (RIA) is a podcast about topics and issues related to research in higher education featuring experts across a range of disciplines. Episodes are posted weekly and include guest interviews and occasional solo episodes. Guests are from a range of higher education institutions and share their expertise on qualitative, quantitative and mixed methods as well as their personal experiences as researchers, research and writing practices, organizational and productivity strategies, and much more. Some weeks, bonus content will also be posted.

“Research in Action” is hosted by [Dr. Katie Linder](#), research director for Oregon State University Ecampus.

Visit the podcast website to view [show notes and transcripts for each episode](#), explore our [episode guide](#), learn more about how to [contact us](#), or [suggest a future guest or topic](#).

You may subscribe to the [“Research in Action” RSS feed](#) or access the podcast via [iTunes](#), [Soundcloud](#) or [Stitcher](#).

“Research in Action” is also listed on [MERLOT](#).

The “Research in Action” podcast is a resource funded by Oregon State University Ecampus – ranked top ten in the nation for online education two years running by U.S. News & World Report. OSU Ecampus has more than 45 degree programs and more than 1,000 classes online.

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