

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. Jason Osborne on Data Cleaning [33:15]

Research in Action - Episode 17

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. Jason Osborne, Associate Provost and Dean of the Graduate School at Clemson University in Clemson, SC, where he is also Professor of Applied Statistics in the Department of Mathematical Sciences and in Public Health Sciences. He is author of over 70 peer-reviewed articles and seven books, many of which focus on best practices in statistical methods. He has also been active in research related to social justice, educational psychology, and evaluation. His work has been cited in scholarly publications over 10,000 times according to Google Scholar, and he is also an Accredited Professional Statisticiantm (awarded by the American Statistical Association). Jason is a 3rd degree black belt in Songahm Tae Kwon Do, and the proud father of three, each of which he considers an outlier in the positive tail of the distribution of awesomeness.

Segment One [00:00-11:35] - In this segment, Jason talks about what constitutes data cleaning and why data cleaning practices are so important to do before data analysis takes place.

Segment Two [11:36-22:59] - In this segment, Jason discusses some of the pervasive myths of data cleaning and debunks the myths based on his book *Best Practices in Data Cleaning*.

Segment Three [23:00-33:15] - In this segment, Jason shares about his new book on regression and his focus on mentoring readers into a larger regression universe.

Bonus Clip #1 [00:00-2:22]: Assumptions of Measurement

Bonus Clip #2 [00:00-5:43]: Methods for Testing Assumptions

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

<http://ecampus.oregonstate.edu/research/podcast/e17/>

Learning Outcomes

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

- Define data cleaning and provide an example of it
- Discuss examples of generational changes regarding data analysis practices
- Identify some advantages and disadvantages of utilizing software for data analysis
- Discuss some of the common myths related to data cleaning
- Review suggestions for beginners in data cleaning practices
- Cite resources for best practices in data cleaning, regression, and linear modeling

Guiding Questions for Listening

- What is data cleaning?
- According to Dr. Osborne, how does data cleaning help a researcher “understand data in a deeper way”?
- What appear to be some advantages and disadvantages to the use of software packages to run statistical analysis on data?
- According to Dr. Osborne, what are some current myths about data cleaning and how has he addressed some of these myths?
- What insights does Dr. Osborne share as to reasons why researchers appear to have moved away from describing data cleaning in their studies?
- What suggestions does Dr. Osborne offer for researchers who have limited, if any, experience with data cleaning practices?
- What is regression in data analysis and what is an example of it?
- Why is the quality of measurement in quantitative analysis important? (see also, bonus clip)

Possible Activities

- Assign a chapter from Dr. Osborne's book *Best Practices in Data Cleaning* for students to read and discuss after listening to this episode.
- Ask students to visit the show notes for this episode (<http://ecampus.oregonstate.edu/research/podcast/e17/>) 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/e17/>) 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 Jason Osborne if they could?

Suggested Citation (APA, 6th edition)

Linder, K. (Producer/host). (2016, July 25). *Dr. Jason Osborne on Data Cleaning* [Audio podcast]. Retrieved from <http://ecampus.oregonstate.edu/research/podcast/e17/>

Notes

About the Research in Action Podcast

“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.

Contact

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