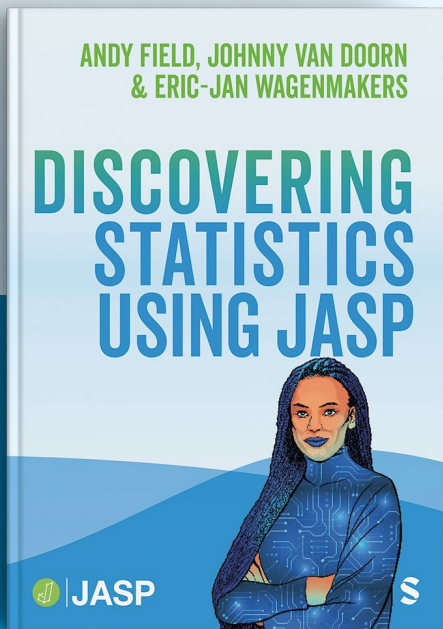


DISCOVERING STATISTICS USING JASP



JASPify the way you do statistics

Unlock the world of statistics with Discovering Statistics using JASP, a comprehensive guide that brings the power of JASP software into the classroom.

Building on the legacy of the acclaimed DSUS series, this book distills complex statistical concepts into approachable step-by-step instructions with plenty of humour. Designed for undergraduate courses, students will gain practical skills and confidence in data analysis without needing to learn coding.

EXPLORE WHAT MAKES THIS BOOK UNIQUE

- **A student-focused approach:** An abridged version tailored to undergraduate needs, with accessible summaries and practical solutions.
- **Everything one'll ever need to know:** taking the complete novice from the very basics (1. Why is my evil lecturer forcing me to learn statistics?) to complex concepts (17. Categorical outcomes: logistic regression).
- **Cutting-edge tools:** Leverages free JASP software, supported by world-renowned experts and the University of Amsterdam. In each chapter there are boxes containing tips, hints, and pitfalls related to JASP.
- **Global relevance:** features international real-world examples and case studies, making it ideal for diverse classroom settings and helping students apply concepts to everyday life.
- **Alignment with open science:** Encourages reproducibility and transparency in research practices.

No one gets left behind

The textbook assumes no knowledge about statistics, only that readers have a very basic grasp of computers and maths.

- **Chapters 1-9** are first-year degree level
- **Chapters 10-15** move into second-year degree level
- **Chapters 16-17** discuss more technical topics

A

is for brain Attain: I'd hope that everyone can get something out of these sections. These sections are aimed at readers just starting a non-STEM undergraduate degree.

B

is for brain Bane. These sections are aimed at readers with a bit of statistics knowledge, but they might at times be a source of unhappiness for your brain. They are aimed at readers in the second year of a non-STEM degree.

C

is for brain Complain. These topics are quite difficult. They are aimed at readers completing the final year of a non-STEM undergraduate degree or starting a Masters degree.

D

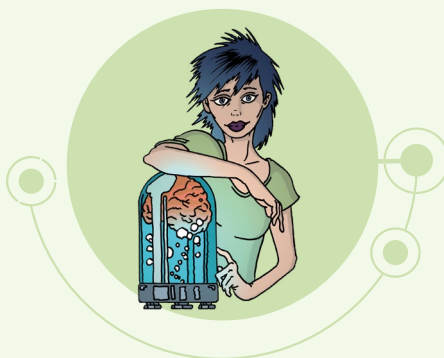
is for brain Drain. These are difficult topics that will drain many people's brains including my own. The 'D' might instead stand for Dogbane because if your brain were a dog, these sections would kill it. Anything that hurts dogs is evil, draw your own conclusions about these sections.

MEET THE CHARACTERS IN THE BOOK!



Just Another Statistics Professor (JASP)

New to the Field gang is Just Another Stats Professor. This sassy professor likes to pop up in boxes throughout the book to provide tips on applying the stats topics specifically to JASP software.



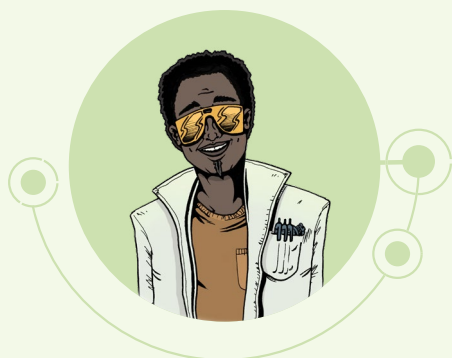
Jane Superbrain

Jane is the cleverest person in the universe. She has acquired a vast statistical knowledge, but no one knows how. She is an enigma, an outcast, and a mystery. Brian has a massive crush on her. Jane appears to tell you advanced things that are a bit tangential to the main text. Can Brian win his way into her heart? You'll have to read and find out.



Smart Alex

Alex was aptly named because she's, like, super smart. She likes teaching people, and her hobby is posing people questions so that she can explain the answers to them. Alex appears at the end of each chapter to pose you some questions. Her answers are on the companion website.



Labcoat Leni

Leni is a budding young scientist and he's fascinated by real research. He says, *'Andy, I like an example about using an eel as a cure for constipation as much as the next guy, but all your data are made up. We need some real examples, buddy!'* Leni walked the globe, a lone data warrior in a thankless quest for real data. When you see Leni you know that you will get some real data, from a real research study, to analyse.



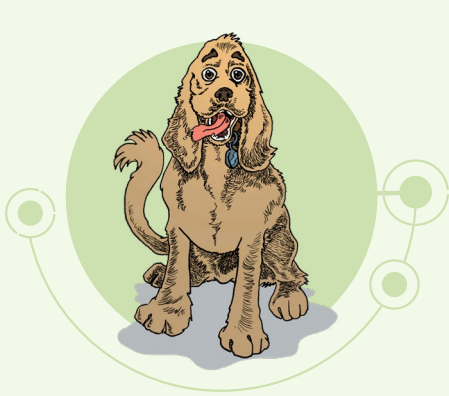
Oliver Twisted

Master Twisted always wants more statistics information. Who wouldn't? Let us not be the ones to disappoint a young, dirty, slightly smelly boy who dines on gruel. When Oliver appears he's telling you that there is additional information on the companion website. (It took a long time to write, so someone please actually read it.)



Confucius

The great philosopher Confucius had a lesser-known brother called Confusius. Jealous of his brother's great wisdom and modesty, Confusius vowed to bring confusion to the world. To this end, he built the confusion machine. He puts statistical terms into it, and out of it come different names for the same concept. When you see Confusius he will be alerting you to statistical terms that mean (essentially) the same thing.



Misconception Mutt

Misconception Mutt follows his owner to statistics lectures and finds himself learning about stats. Sometimes he gets things wrong, though, and when he does something very strange happens. A ginger cat materializes out of nowhere and corrects him.



Correcting Cat

This cat lives in the ether and appears to taunt the Misconception Mutt by correcting his misconceptions. He also appears when Andy wants to make a bad cat-related pun. He exists in loving memory of Andy's own ginger cat who after 20 years as the star of this book sadly passed away, which he promised him he'd never do. You can't trust a cat.



Cramming Sam

Samantha thinks statistics is a boring waste of time. She wants to pass her exam and forget that she ever had to know anything about normal distributions. She appears and gives you a summary of the key points that you need to know. If, like Samantha, you're cramming for an exam, she will tell you the essential information to save you having to trawl through hundreds of stats pages.



Brian Haemorrhage

Brian is a really nice guy, and he has a massive crush on Jane Superbrain. He's seen her around the university campus and whenever he sees her, he gets a knot in his stomach. He soon realizes that the only way she'll date him is if he becomes a statistics genius (and changes his surname). So, he's on a mission to learn statistics. At the moment he knows nothing, but he's about to go on a journey that will take him from statistically challenged to a genius, in 1000 pages. Along his journey he pops up and asks questions, and at the end of each chapter he flaunts his newly found knowledge to Jane in the hope that she'll notice him.

WHAT ONLINE RESOURCES COME WITH THE BOOK?

The data files for the book and the solutions to the various tasks and pedagogic features in this book are at www.discoverjasp.com, which is a website that the authors wrote and maintain.

This website contains:

- **Self-test solutions:** where the self-test is not answered within the chapter, the solution is on this website.
- **Smart Alex answers:** each chapter ends with a set of tasks for students to test their newly acquired expertise. The website contains detailed answers.
- **Datasets:** the book uses a lot of bizarre but hopefully interesting datasets throughout, all of which can be downloaded so that students can practice what they learn.
- **Labcoat Leni solutions:** there are full answer to the Labcoat Leni tasks.
- **Oliver Twisted's pot of gruel:** Oliver Twisted will draw attention to the hundreds of pages of more information that we have put online.
- **JASP video tutorials.**

In addition, there's a bunch of useful stuff for lecturers and students on the **Sage website**, where you'll find:

- **Testbank:** There is a comprehensive testbank of multiple-choice questions for instructors to use for substantive assessment. It comes in a downloadable file that lecturers can upload into their online teaching system (with answers separated out). This enables questions to be assigned for exams and assignments. Students can see feedback on correct/incorrect answers, including pointers to areas in the book where the right answer can be found.
- **Chapter based multiple-choice questions:** Organized to mirror the journey through the chapters, these questions test students' formative understanding week-by-week.
- **PowerPoint decks:** To assist in lecturers' mission to spread the joy of statistics Sage provides PowerPoint decks for each chapter.
- **Teaching Guide** includes teaching tips and how to switch to JASP from SPSS.

Sneak Peak Inside

You can **preview chapter 4**, along with the table of contents, to see how the book might work for you.

TAKE A LOOK