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## Profile

A lecturer in Psychology and a doctoral researcher with in-depth knowledge of statistical methods and experience using R, RStudio, RMarkdown and Quarto for a variety of tasks. Teaching experience in Higher Education includes delivering lectures and practical classes in research methods and statistics for undergraduate Psychology students, developing teaching materials, developing and running research training workshops for faculty and students, supervision of undergraduate students, one-to-one research and statistical analysis support, promoting and supporting the use of open science practices.

My PhD research focuses on the application of robust statistical methods as a means of improving the credibility of findings in Psychology. The project combines a range of methodologies, including large-scale reanalyses of existing research data, data simulation, and online surveys of statistical practice.

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## Higher Education

2020–	<b>Ph.D. Psychology   University of Sussex.</b> Thesis: “The role of robust statistical methods in the credibility revolution of psychological science”.	<b>In progress</b>
2018– 20	<b>M.Sc. Cognitive Neuroscience   University of Sussex.</b> Dissertation: “Estimating the change in meta-analytic effect size estimates after the application of publication bias adjustment methods”.	<b>Distinction</b>
2014– 17	<b>B.A. (Hons). Applied Psychology and Criminology   University of Brighton.</b> Dissertation: “When the effect precedes the cause: The influence of video game exposure on the use of timing representations in temporal perception”	<b>First class</b>

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## Employment

2023–	<b>Lecturer in Psychology.</b> Teaching provision on undergraduate and postgraduate psychology modules in research methods, statistics and R.	<i>University of Sussex</i>
2022– 23	<b>Visiting Research Fellow.</b> Carry out and collaborate on research work. Present and discuss research outcomes at seminars.	<i>University of Brighton</i>
2022– 22	<b>Research Assistant.</b> Processing data from from the Equality, Diversity, and Inclusion survey at School of Psychology and compiling reproducible reports written in Quarto.	<i>University of Sussex</i>
2020– 23	<b>Doctoral Tutor.</b> Supporting the delivery of practical classes on modules covering statistical analysis and R, RStudio, RMarkdown and Quarto	<i>University of Sussex</i>
2017– 23	<b>Psychology Technician.</b> Development and delivery of research training workshops for Psychology faculty and students, running research methods workshops and seminars covering SPSS and quantitative analysis for undergraduate and postgraduate students, providing statistical advice for faculty and students, promoting open science and providing advice on the use of open science practices.	<i>University of Brighton</i>
2013– 17	<b>Various jobs</b> completed while studying, including Archive Project Team Worker (Brighton College), Titration Clinic Volunteer (Pavilions, Brighton), Student Staff (Brighton Student Union), Student Services Ambassador (University of Brighton Student Services).	<i>Various</i>

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## Teaching qualifications

2021-22 **Associate Fellowship of the Higher Education Academy.** Attained in recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education.

*Advanced  
Higher  
Education*

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## Modules taught on

### Undergraduate

- 2023– **Analysing Data.** Lecturer. Skills labs & practical sessions lead | University of Sussex
- 2021–23 **Discovering Statistics.** Doctoral tutor | University of Sussex
- 2020–21 **Psychology as a Science.** Doctoral tutor | University of Sussex
- 2017–23 **Psychology Dissertation.** Supervisor & Psychology technician | University of Brighton
- 2017–18 **Psychological Research Methods.** Seminar lead | University of Brighton

### Postgraduate

- 2021–22 **Researching Social and Cultural life.** Psychology technician | University of Brighton
  - 2020– **An Adventure in Statistics.** Doctoral Tutor | University of Sussex
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## Statistical knowledge

- Frequentist and Bayesian hypothesis testing and estimation
  - General linear model (incl. *t*-test, ANOVA, factorial ANOVA, ANCOVA, multiple regression, moderation & mediation)
  - Correlation, Chi-square & non-parametric tests
  - Growth models & multilevel / mixed-effects models
  - Logistic regression
  - Multiple imputation by chained equations
  - Multilevel Bayesian modelling with {brms}, including gaussian, logistic and ordinal models
  - Robust statistical methods and bias detection
  - Advanced meta-analytic methods (publication bias adjustment methods)
  - Statistical analysis using R, SPSS, JASP, JAMOVI
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## R / RStudio, and coding knowledge

- Data wrangling using the [tidyverse](#) ecosystem
  - Data visualisation with [ggplot2](#) and its extensions (e.g. [ggdist](#) and [ggfortify](#))
  - Advanced model fitting (see section *Statistical knowledge*)
  - Producing automated and reproducible reports and manuscripts in RMarkdown and Quarto
  - Data simulation
  - Development of interactive web-applications with R & [shiny](#)
  - Version control and research collaboration using GitHub
  - Working knowledge of Natural Language Processing and machine learning using [tidytext](#) & [tidymodels](#)
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## Awards

- 2022 OneStaff Brighton Award for support in teaching (shortlisted) | University of Brighton
- 2020 BPS Support in Psychological Teaching Award | British Psychological Society
- 2020 Prize for Best Performance on the M.Sc. Cognitive Neuroscience | University of Sussex
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## Research grants and scholarships

- 2020– **The role of robust statistical methods in the credibility revolution of psychological science**
- +3 fully-funded Advanced Quantitative Methods SeNSS ESRC studentship supervised by: Prof Andy P. Field (70%), Prof Zoltan Dienes (20%) & Dr Sophie Forster (10%)
  - £15,285 p.a. + research budget and course fees
- 2022 **Robocats: Exploring robotic pet interactions for coping and recovering from an experience of ostracism**
- Co-Investigator with Dr Rebecca Grist (PI) & Dr Jay Tamplin Wilson
  - £1,130
- 2017 **University of Sussex Chancellor's Master's Scholarship**
- Sole applicant
  - £3,000
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## Open science

- 2023 Preregistered: Data and models in psychology <https://osf.io/znfc2>
- 2021 Preregistered: Statistical models in Psychology (part I): Online survey. <https://osf.io/udht9>
- 2021 Preregistered: Statistical models in Psychology (part II): Analysis exercise. <https://osf.io/navq3>
- 2020 Preregistered: Data and models in psychology (pilot). <https://osf.io/yurxp>
- 2019 Preregistered, open materials & open data: Estimating the change in meta-analytic effect size estimates after the application of publication bias adjustment methods. <https://osf.io/k9hqm>
- 2018 Reproducibility review: Similar event-related potentials to structural violations in music and language: A replication of Patel et al. (1998). <https://osf.io/nskr>
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## Professional memberships

- 2022– Royal Statistical Society
- 2022– Society for the Improvement of Psychological Science
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## Peer review

- Journal of Science and Medicine in Sport
  - Meta-Psychology
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## Research

### Published papers

**Sladekova, M.**, Webb, L. E., & Field, A. P. (2022). Estimating the change in meta-analytic effect size estimates after the application of publication bias adjustment methods. *Psychological Methods*. Advance online publication. <https://doi.org/10.1037/met0000470>

Pownall, M., Azevedo, F., König, [et al., including **Sladekova, M.**] (2023). The impact of open and reproducible scholarship on students' scientific literacy, engagement, and attitudes towards science: A review and synthesis of the evidence. In press in *Royal Society Open Science*. <https://osf.io/preprints/metaarxiv/9e526/>

### Under review

Bartoš, F., Maier, M., Wagenmakers, E. J., Nippold, F., Doucouliagos, H., Ioannidis, J., Otte, W. M., **Sladekova M.**, Fannelli, D. & Stanley, T. D. (2023). Footprint of publication selection bias on meta-analyses in medicine, economics, and psychology. Under review in *Research Synthesis Methods*. <https://arxiv.org/abs/2208.12334>

Bartoš, F., Maier, M., Shanks, D., Stanley, T. D., **Sladekova, M.**, & Wagenmakers, E. J. (2023). Meta-Analyses in Psychology Often Overestimate Evidence for and Size of Effects. Under review in *Psychological Methods*. <https://psyarxiv.com/tkmpc/>

Collins, L., Terry, J., Pownall, M., & Jones, A., **Sladekova, M.** (2023). PhD Psychology students' perceptions, understanding, and experiences of open science. Under review in *Cogent*.

### Manuscripts in preparation

**Sladekova M.** & Field A. P. (2023). The role of robust statistical methods in the credibility movement of psychological science. Manuscript in preparation.

**Sladekova M.** & Field, A. P. (2023). Statistical assumptions of least-squares linear models: Evaluating the understanding and practice in Psychology. Manuscript in preparation.

**Sladekova M.**, Poupa, V. L. & Field, A. P. (2023). Psychology researchers pay insufficient attention to sources of bias in ordinary least squares linear models. Manuscript in preparation.

### Talks & posters\*

**Sladekova M.** & Field A. P. (2022). Improving inferences and reducing analytic flexibility with robust statistical methods. Presented at the annual conference of the *Society for the Improvement of Psychological Science*.

**Sladekova M.** & Field A. P. (2022). Using robust statistical methods to improve the credibility of findings. Presented at *Brighton Festival of Open Research*

**Sladekova M.** & Field A. P. (2021). Robust statistics and the credibility movement: Are the statistical methods we use fit for purpose? Presented at *University of Brighton ReproducibiliTea*.

\*Armitage, R. M., **Sladekova M.**, Yeomans, M. R (2022). Comparing body composition between the sweet-liking phenotypes: Systematic review and individual participant data meta-analysis. Presented at the *Society for the Study of Ingestive Behaviour Conference*.

\***Sladekova M.** & Poupa V. L. & Field A. P. (2021). Psychology researchers pay insufficient attention to sources of bias in linear models. Poster presented at *University of Sussex School of Psychology Poster Conference*.

**Sladekova M.** & Morgan, J. (2017). When the effect precedes the cause: The influence of video game exposure on the use of timing representations in temporal perception. Presented at *Brighton Undergraduate Dissertation Showcase*

## Academic Citizenship

2022–	<b>Module Automation.</b> Building resources for generating automated calibration reports, automatic marking of coding assessments, producing summary reports of student support documents.	<i>University of Sussex</i>
2022–23	<b>Psychology Research Methods Delivery Steering Group.</b> I contributed to discussions on the delivery of Research Methods modules for undergraduate students as part of the Psychology Curriculum Redesign	<i>University of Brighton</i>
2022–23	<b>Undergraduate Supervision Allocation.</b> Responsibility for implementing an algorithm that allocates supervisors to undergraduate students based on ranked preference.	<i>University of Brighton</i>
2021–23	<b>Diversity and Equality Committee.</b> Committee member. I was responsible for generating reports for Athena Swan submissions.	<i>University of Brighton</i>
2021–23	<b>Open Scholarship Group.</b> My role was to promote Open Science to the wider faculty, partake in discussions, deliver talks and open science training.	<i>University of Brighton</i>
2020–	<b>Statistics and Open Science Advisory.</b> I provide advice on statistical analysis and the use of Open Science practices (like preregistration, data sharing or reproducible practice) for staff at University of Brighton (2020–2023) and PGRs at University of Sussex.	<i>Universities of Brighton &amp; Sussex</i>
2018–18	<b>Widening Participation Summer School.</b> I co-organised and ran sessions introducing college students to the use of eye-tracking in psychological research.	<i>University of Brighton</i>
2017–18	<b>R User Group.</b> Responsibility for organising meetings and investigating the practicalities of transitioning from teaching SPSS to R on undergraduate courses.	<i>University of Brighton</i>
2017–23	<b>Open Days.</b> I organised and delivered talks about research at the university and the role of the Psychology Lab to prospective undergraduate and postgraduate students.	<i>University of Brighton</i>

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