

POSTDOCTORAL RESEARCHER

Eindhoven University of Technology, The Netherlands

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Employment

Eindhoven University of Technology

POSTDOCTORAL RESEARCHER

Eindhoven University of Technology

PHD CANDIDATE

Eindhoven, The Netherlands

2025-Present

Eindhoven, The Netherlands

2021-Present

2021-Present

Education

Eindhoven University of Technology

РнD

Eindhoven, The Netherlands

• My PhD thesis focused on the factors that hinder replicability and reproducibility of research in sports and exercise science

University of Barcelona Barcelona, Spain

MSc. Integrative Physiology 2017-2019

· My master thesis focused on the effect of two training protocols on maxymal oxygen uptake in highly-trained cyclists

University of Granada Granada, Spain

MSc. Research in Sport and Physical Activity

2015-2017

• My master thesis focused on the performance determinants of swimming sprint performance

University of Vic Vic, Spain

BSc. Sports and Exercise Science

2009-2013

• My bachelor end project focused on developing a training programe to reduce the injury risk of hamstrings in football players

Publications

- 1. Lakens, D., Mesquida, C., Rasti, S., & Ditroilo, M. (2024). The benefits of preregistration and Registered Reports. *Evidence-Based Toxicology*, 2(1), 2376046. https://doi.org/10.1080/2833373X.2024.2376046
- 2. Ditroilo, M., Mesquida, C., Abt, G., & Lakens, D. (2024). *Exploratory Research in Sport and Exercise Science*. SportRxiv. https://doi.org/10.51224/SRXIV.457
- 3. Mesquida, C., & Lakens, D. (2024). Is the effect large enough to matter? Why exercise physiologists should interpret effect sizes meaningfully: A reply to Williams et al. (2023). *The Journal of Physiology*, 602(1), 241–242. https://doi.org/10.1113/JP285901
- 4. Murphy, J., Warne, J., Mesquida, C., & Caldwell, A. R. (2024). *Sports Science Replication Project*. Open Science Framework. https://doi.org/10.17605/0SF.IO/3VUFG
- 5. Holgado, D., Mesquida, C., & Román-Caballero, R. (2023). Assessing the Evidential Value of Mental Fatigue and Exercise Research. *Sports Medicine*, *53*(12), 2293–2307. https://doi.org/10.1007/s40279-023-01926-w
- 6. Mesquida, C., Murphy, J., Lakens, D., & Warne, J. (2023). Publication bias, statistical power and reporting practices in the Journal of Sports Sciences: Potential barriers to replicability. *Journal of Sports Sciences*, 41(16), 1507–1517. https://doi.org/10.1080/02640414.2023.2269357
- 7. Murphy, J., Mesquida, C., & Warne, J. (2023). A Survey on the Attitudes Towards and Perception of Reproducibility and Replicability in Sports and Exercise Science. *Communications in Kinesiology*, 1(5). https://doi.org/10.51224/cik.2023.53
- 8. Bossi, A. H., Mesquida, C., Hopker, J., & Rønnestad, B. R. (2023). Adding Intermittent Vibration to Varied-intensity Work Intervals: No Extra Benefit. *International Journal of Sports Medicine*, 44(2), 126–132. https://doi.org/10.1055/a-1812-7600
- 9. Mesquida, C., Murphy, J., Lakens, D., & Warne, J. (2022). Replication concerns in sports and exercise science: A narrative review of selected methodological issues in the field. *Royal Society Open Science*, 9(12), 220946. https://doi.org/10.1098/rsos.220946

- Murphy, J., Mesquida, C., Caldwell, A. R., Earp, B. D., & Warne, J. P. (2022). Proposal of a Selection Protocol for Replication of Studies in Sports and Exercise Science. Sports Medicine. https://doi.org/10.1007/s40279-022-01749-1
- 11. Etxebarria, N., Wright, J., Jeacocke, H., Mesquida, C., & Pyne, D. B. (2021). Running Your Best Triathlon Race. International Journal of Sports Physiology and Performance, 16(5), 744–747. https://doi.org/10.1123/ijspp.2020-0838
- 12. Bossi, A. H., Mesquida, C., Passfield, L., Rønnestad, B. R., & Hopker, J. G. (2020). Optimizing Interval Training Through Power-Output Variation Within the Work Intervals. *International Journal of Sports Physiology and Performance*, 15(7), 982–989. https://doi.org/10.1123/ijspp.2019–0260

Teaching Experience

Eindhoven University of Technology

TEACHER OF BEHAVEORAL RESEARCH METHODS 2 AND 3

2025

Teaching regression, multiple regression, power analysis, and equivalence testing

Eindhoven University of Technology

SUPERVISOR OF BACHELOR END PROJECT

2025

Supervising a student conducting a meta-analysis

Eindhoven University of Technology

LECTURER OF INTRODUCTION TO META-ANALYSIS

2024

• I taught Introduction to Meta-analysis as part of the Metascience course

Eindhoven University of Technology

TEACHING ASSISTANT OF ADVANCED DATA ANALYSIS

2024

Teaching R Markdown and data simulation

Eindhoven University of Technology

SUPERVISOR OF A MASTER'S THESIS

2024

 Supervising the development of a tool to detect the use of standard error of measurement instead of the standard deviation for effect sizes in meta-analyses

Eindhoven University of Technology

SUPERVISOR OF BACHELOR END PROJECT

2023

- Supervising 4 students creating a tool to sample sizes from published studies
- Supervising 4 students creating a tool to explore the feasability of extracting data from published studies

Setanta College

TEACHING ASSISTANT OF APPLIED EXERCISE PHYSIOLOGY

2021

· Teaching anatomy

Talks

University Medical Center Groningen

NLRN Pre-Symposium for Young Meta-Scientists

2024

 I presented the findings from one of my PhD projects where we examined publication bias and average statistical power in sports and exercise science research

Eindhoven University of Technology

PAUL MEEHL GRADUATE SCHOOL PHD DAY CONFERENCE

2024

• I presented the findings from one of my PhD projects where we examined the reporting practices and reproducibility of a priori power analyses in sports and exercise science research

Setanta College

PRESENTER OF A WORKSHOP ON ENDURANCE PERFORMANCE

2021-2023

One-day workshop about physiological determinants of endurance performance

Grants.

Eindhoven University of Technology

IE&IS ESA EDUCATION INNOVATION GRANT

2024

• Funding to develop an R package designed to assist master's students and supervisors in performing automatic checks to prevent statistical errors and enforce best research practices