

Ottavia M. Epifania, Ph.D.

GitHub: <https://github.com/OttaviaE>
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Birth Date: January 10th, 1990

CURRENT EMPLOYMENT

- **Temporary research fellow** Padova, IT
University of Padova *July 2022 - June 2024*
PRIN 2020 Project: “Computerized, Adaptive and Personalized Assessment of Executive Functions and Fluid Intelligence”
Principal Investigator: Professor Luca Stefanutti
Law: art. 22 della Legge 240/2010
Note: Currently underway
- **Lecturer** Milan, IT
60-hour course (First semester), 8 c.f.u. *Since Academic Year 2021/2022*
Course: **Statistical Psychometrics** (Introduction to Measurement Theory in Psychology, univariate and bivariate descriptive statistics, Probability Theory, Statistical Inference)
School: Bachelor degree in Psychology, Catholic University of the Sacred Heart, Milan, Italy
Note: Currently underway
- **Editor**
PeerJ *November 2023 - On going*
- **Review Editor**
Frontiers in Quantitative Psychology *July 2021 - On going*

EDUCATION

- **Ph.D. in Psychological Sciences; cum laudae** Padova, IT
University of Padova *Oct 2017 - May 2021*
Thesis defended on May, 14th, 2021
Thesis reviewers: Prof. David Andrich, Prof. Francis Tuerlinckx.
Defense committee: Prof. Luca Andrichetto, Prof. Caterina Primi, Prof. Katie Wolsiefer
Thesis: Inglorious Measures: A Linear Mixed-Effects Model approach for a Rasch analysis of implicit measure accuracy and time responses
Advisor: Professor Egidio Robusto
Co-advisor: Professor Gianmarco Altoè
Advisor (Visiting period at OSU): Professor Paul De Boeck
Attended courses: Null hypothesis testing, R basics/advanced, Inferential Statistics (NHST), Inferential Statistics (Bayesian), Latent trait modeling, Scientific writing.
- **Visiting research scholar** Ohio, USA
The Ohio State University *Jan 2019 - May 2019*
Collaboration with Prof. De Boeck (i.e., multilevel data modeling, latent variable modeling)

- **Master Degree in Psychology, 110/110 cum laude**
University of Genova
 Supervisor: Prof. Carlo Chiorri
 Thesis: Pratiche di Body Modifications: Associazione con la tendenza al self injury e con i tratti di personalità
 Genova, IT
 Nov 2012 - Nov 2014
- **Bachelor Degree in Psychology, 109/110**
University of Genova
 Supervisor: Dr. Paola Cardinali
 Thesis: Violenza e processi Psicosociali: Il G8 di Genova
 Genova, IT
 Oct 2012 - Oct 2009

PREVIOUS WORK EXPERIENCE

- **Temporary research fellow**
University of Padova
 Project: “New frontiers in developing tests for Psychological Assessment”
 Principal Investigator: Professor Pasquale Anselmi
 Law: art. 22 della Legge 240/2010
 Note: 5-month mandatory maternity leave, from 24th December 2021 to 24th May 2022
 Padova, IT
 Feb 2021 - June 2022
- **Translator**
EduVal Project srl
 English-Italian translations of documents, reports, tests for the OECD-SSES project
 Busto Arsizio, IT
 Sep 2018 - Dec 2018
- **Temporary research fellow**
Educational Technologies Institute - National Research Council
 Project: “Technologies for socio-educational inclusion of children with chronic illness”
 Principal Investigators: Dr. Vincenza Benigno, Dr. Guglielmo Trentin
 Law: art. 22, comma 3, della legge 240/2010, art. 6, comma 2 bis, della L. 27 febbraio 2015 n. 11, di conversione del D.L. 31 dicembre 2014 n. 192
 Note: Originally, the contract was from May, 1st 2016 to April, 30th 2017, but it was extend on April, 24th for a 6-month period starting from April, 30th 2017.
 Genova, IT
 May 2016 - Sept 2017

TEACHING EXPERIENCE

- **Statistical Psychometrics**
60-hour course, 8 c.f.u.
 Topics: Introduction to Measurement Theory in Psychology, univariate and bivariate statistics, Probability Theory, Statistical Inference
 School: Bachelor Degree in Psychology, Catholic University of the Sacred Heart, Milan, IT
 Milan, IT
 Since A.Y. 2021/2022
- **An introduction to Item Response Theory Models with R**
6-hour Seminar
 Topics: Introduction to Item Response Theory for dichotomous responses, model estimation with R on simulated and real data, investigation of Differential Item Functioning.
 School: University of Trento, Rovereto, IT
 Course website: <https://ottaviae.github.io/IRTintro/>
 Rovereto, IT
 November, 17th, 2023

- **couRse: An introduction to R** Milan, IT
12-hour course *June 7th-8th, 2023*
 Topics: Variables, functions, and operators, data structures, working with data frames, descriptive statistics, graphics (base R and `ggplot2`)
 School: Graduate School in Psychology, Catholic University of the Sacred Heart, Milan, IT
 Further information: Lesson at the Graduate School in Psychology of the Catholic University of the Sacred Heart.
 Course website: <https://github.com/OttaviaE/coRso>
- **RMarkdown: Reproducible analysis, presentations, reports and beyond** Padova, IT
20-hour course *2022, 2023*
 Topics: Basics of RMarkdown, integrating code, analysis, and text in one file, presentations with basic RMarkdown, `xaringan`, and `beamer`, introduction to `quarto`
 School: Applied Research Courses Academy, Department of Developmental Psychology and Socialisation, University of Padova, Padova, IT
 Further information: Open-badge course, Third mission. The course is an intensive school on RMarkdown. So far, it has been delivered three times (June 2022, March 2023, June 2023, Confirmed for March and June 2024).
 Course website: <https://arca-dpss.github.io/CorsoRmarkdown/>
- **Introduction to Item Response Theory with applications in R** Bolzano, IT
16-hour course *December, 19th-21st, 2022*
 Topics: Introduction to Item Response Theory for dichotomous responses, model estimation with R on simulated and real data, investigation of Differential Item Functioning.
 School: University of Bolzano, Bolzano, IT
 Course characteristics: Lesson at the Graduate School in Bressanone-Brixen
 Course website: <https://ottaviae.github.io/bRixen-IRT/>
- **From experiment design to data analysis: How to work with implicit measures** Padova, IT
8-hour course *2022, 2023*
 Topics: Programming experiments in Inquisit, Saving data, Import and analyze data with R
 School: II Level Master in Quantitative Psychology, University of Padova, IT
 Further information: The course in an intensive school on programming and collecting data in Inquisit, and analyze the collected data. So far, it has been delivered twice times (July 2022, July 2023).
- **Programming in R and introduction to shiny** Padova, IT
12-hour course *July, 2022*
 Topics: Introduction to R and `shiny`, Basic and advanced programming in `shiny`
 School: Higher Education Learning Platform for Quantitative Thinking (QHELP)
 Course website: <https://ottaviae.github.io/RcouRse/>
- **Implicit assessment in psychology: Myths, doubts, and practical applications** Milano, IT
2-hour seminar *June, 10th, 2022*
 Topics: Excursus on the concept of implicit in psychological assessment, implicit measures, Psychometrically sound approaches for analyzing implicit measures data
 School: Methodological School (FoRME), Catholic University of the Sacred Heart, Milan, IT
 Further information: Third mission.

- **Psychometrics – Tutor** Padova, IT
30 hours (Second semester) *Since Academic year 2019/2020*
 Topics: Statistical inference, Statistical testing in Psychology
 School: Bachelor in Psychology, University of Padova, IT
- **The Rasch model: Practical applications in R** Padova, IT
6-hour course *Academic year: 2017/2018*
 Topics: Introduction to R, Analysis of simulated data with the TAM package in R, *infit* and *outfit* computation and interpretation
 School: Master Degree in Work Psychology, University of Padova, IT

STUDENT SUPERVISION

- **Academic Year 2019-2020** Padova, IT
University of Padova *Bachelor degree in Psychology*
 Thesis: “Risposta sbagliata!”: L’effetto del feedback sulla performance durante l’Implicit Association Test.
 Thesis: L’effetto del feedback (built-in correction) nella somministrazione dell’Implicit Association Test
- **Academic Year 2018-2019** Padova, IT
University of Padova *Bachelor degree in Psychology*
 Thesis: Implicit Association Test, Single Category Implicit Association Test e misure esplicite per la valutazione della preferenza per il cioccolato
- **Academic Year 2018-2019** Padova, IT
University of Padova *Master degree in Social and Work Psychology*
 Thesis: Misure implicite e scelte comportamentali: Confronto tra l’Implicit Association Test e il Single Category Implicit Association Test
- **Academic Year 2017-2018** Genova, IT
University of Genova *Bachelor degree in Psychology*
 Thesis: Validità di costrutto di una misura per la valutazione dell’atteggiamento verso i senzatetto
- **Academic Year 2016-2017** Padova, IT
University of Genova *Bachelor degree in Psychology*
 Thesis: Relazioni fra misure implicite ed esplicite dell’atteggiamento verso le persone tatuate

SKILLS & GENERAL INFORMATION

- **Programming and data analysis:** R (data analysis: 8 years, packages development 4 years), shiny (5 years), RMarkdown (6 years), L^AT_EX(article, beamer, book, 5 years), HTML (4 years), CSS (4 Years), Matlab (Basic), Python (Basic), SQL (Basic).
- **Software for teaching:** Moodle, Kaltura, Blackboard
- **Languages:** Italian (Mother Tongue), English (Advanced)
- **Personal:** Goal-oriented, team player, strong work ethic, assertive, creative, out-of-the-box thinker.
- **Psicostat:** Core member of the Psicostat group, <https://psicostat.dpss.psy.unipd.it/>

ADVANCED TRAINING COURSES

- **IRT, CAT, Machine Learning** Cambridge, UK
University of Cambridge *July 2018*
Topics: R, IRT, Concerto testing platform, CAT, Data mining, sentiment text analysis, Machine learning in practice
Professor: Dr. Aiden Loe, and Dr. Chris Gibbons
- **Tools for Teaching Quantitative Thinking (TquantT)** Glasgow, UK
University of Glasgow *Feb 2018*
Topics: R, shiny, parameter estimation
Professor: Dr. Lisa de Bruine, Prof. Francis Tuerlinckx, Prof. Florian Wickelmaier, Prof. Martin Losert, Prof. Hans Colonius
- **IRT models** Florence, IT
University of Florence *Feb - May 2017*
Topics: IRT models for dichotomous and polytomous items, Differential Item Functioning, Goodness of Fit
Professor: Prof. Caterina Primi, Prof. Francesca Chiesi
- **Measurement models in Psychometrics** Genova, IT
University of Genova *June - July 2016*
Topics: Latent variables modeling - Exploratory Factor Analysis, Confirmatory Factor Analysis - in R
Professor: Prof. Carlo Chiorri
- **Data analysis with R** Genova, IT
University of Genova *June - July 2015*
Topics: Import data in R, bivariate and multivariate statistical analysis
Professor: Prof. Carlo Chiorri, Dr. Marcello Passarelli, Dr. Tommaso Piccinno, Dr. Michele Masini

INTERNSHIPS

- **Trainee in Developmental Psychology** Genova, IT
Educational Technologies Institute - National Research Council *Sep 2015 - Mar 2016*
Project “Technologies for socio-educational inclusion of children with chronic illness”
Supervisor: Dr. Vincenza Benigno
- **Trainee in Psychometrics** Genova, IT
University of Genova *Mar 2015 - Sep 2015*
Collaboration with other trainees and Ph.D. students in data analysis
Supervisor: Prof. Carlo Chiorri

SUBMITTED PAPERS/PAPERS UNDER REVIEW

- Epifania, O.M., Anselmi, P., Robusto, E. (under review). Less is more: A practical guide for the development of short test forms in an Item Response Theory framework *Psychological Methods* [Second round of review]
- Epifania, O. M., Anselmi, P. & Robusto, E., (under review). A guided tutorial on linear mixed-effects models for the analysis of accuracy and response times in experiments with fully-crossed design *Psychological Methods* [Second round of review]

2023

- Epifania, O. M., Robusto, E., & Anselmi, P. (2023). Is the performance at the Implicit Association Test sensitive to feedback presentation? A Rasch-based analysis. *Psychological Research*, 87(3), 737–759. doi: <https://doi.org/10.1007/s00426-022-01703-w> (WoS, Scopus, Google Scholar)

2022

- Epifania, O.M., Anselmi, P., Robusto, E. (2022). Pauci sed boni: An Item Response Theory Approach for Shortening Tests. In: Wiberg, M., Molenaar, D., González, J., Kim, JS., Hwang, H. (eds) *Quantitative Psychology*. IMPS 2022. Springer Proceedings in Mathematics & Statistics, vol 422. Springer, Cham. https://doi.org/10.1007/978-3-031-27781-8_7 (WoS, Scopus, Google Scholar)
- Epifania, O. M., Anselmi, P., & Robusto, E. (2022). Filling the gap between implicit associations and behavior: A Linear Mixed-Effects Rasch Analysis of the Implicit Association Test. *Methodology*, 18(3), 185–202, doi: <https://doi.org/10.5964/meth.7155> (WoS, Scopus, Google Scholar)
- Epifania, O. M., Anselmi, P., & Robusto, E. (2022). Implicit social cognition through the years: The Implicit Association Test at age 21. *Psychology of Consciousness: Theory, Research, and Practice*, 9(3). doi: <https://doi.org/10.1037/cns0000305> (WoS, Scopus, Google Scholar)

2021

- Epifania, O. M., Robusto, E., & Anselmi, P. (2021). Rasch gone mixed: A mixed model approach to the Implicit Association Test. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, 28(4). doi: 10.4473/TPM28.4.5 (WoS, Scopus, Google Scholar)
- Paolini, S., Devita, M. **Epifania, O.M.**, Anselmi, P., Sergi, G., Mapelli, D. & Coin, A. (2021). Perception of stress and cognitive efficiency in older adults with mild and moderate dementia during the COVID-19-related lockdown *Journal of Psychosomatic Research*, 149. doi: <https://doi.org/10.1016/j.jpsychores.2021.110584> (WoS, Scopus, Google Scholar)

2020

- Epifania, O. M., Anselmi, P., & Robusto, E. (2020). Dscoreapp: A shiny web application for the computation of the implicit association test d-score. *Frontiers in Psychology*, 10, 2938. doi: 10.3389/fpsyg.2019.02938 (WoS, Scopus, Google Scholar)
- Epifania, O. M., Anselmi, P., & Robusto, E. (2020). A fairer comparison between the Implicit Association Test and the Single Category Implicit Association Test. *Testing, Psychometrics, Methodology in Applied Psychology*, 27(2). doi: <http://doi.org/10.4473/TPM27.2.4> (WoS, Scopus, Google Scholar)

2020

- Epifania, O.M., Anselmi, P., & Robusto, E., (2020). Implicit measures with reproducible results: The implicitMeasures package. *Journal of Open Source Software*, 5(52), 2394. doi: 10.21105/joss.02394 (Google Scholar)

2019

- Epifania, O. M., Anselmi, P., & Robusto, E. (2019). DscoreApp: A user-friendly web application for computing the Implicit Association Test D score. *Journal of Open Source Software*, 4(42), 1764, <https://doi.org/10.21105/joss.01764> (Google Scholar)

R PACKAGES

- Epifania O.M., Anselmi P., Robusto E. (2023). **shortIRT**: Procedures Based on Item Response Theory Models for the Development of Short Test Forms [Computer software manual]. R package version 0.1.0. Retrieved from <https://cran.r-project.org/web/packages/shortIRT/index.html>
- Brancaccio, A., **Epifania, O.M.**, & de Chiusole, D. (2023). **matRiks**: Generates Raven-Like Matrices According to Rules [Computer software manual]. R package version 0.1.0. Retrieved from <https://cran.r-project.org/web/packages/matRiks/index.html>
- Epifania, O. M., Anselmi, P., & Robusto, E. (2020). **implicitMeasures**: Computes the Scores for Different Implicit Measures [Computer software manual]. Retrieved from <https://CRAN.R-project.org/package=implicitMeasures> (R package version 0.2.0) (Google Scholar)
- Epifania, O. M. (2019). DscoreApp. <http://fisppa.psy.unipd.it/DscoreApp/>. (April 2019)

CONFERENCES

2023

- Epifania, O. M., Anselmi, P., & Robusto, E. (2023). When randomness opens new possibilities: Acknowledging the stimulus sampling variability in Experimental Psychology. **Invited speaker** at the Symposium: “Challenges in categorical data”, *XVI International Conference of the ERCIM WG on Computational and Methodological Statistics*, Berlin (DE), Dec, 16th-18th 2023
- Epifania, O. M., Stefanutti, L., Anselmi, P., Brancaccio, A. & de Chiusole, D. (2023). Le misure in psicologia sono significanti? Il caso del test della Torre di Londra. [Are psychological measures meaningful? The Tower of London case] Presentation at the Symposium: “Crisi di replicabilità o crisi di validità? L’importanza delle misure” [Replicability crisis or validity crisis? The importance of measurement], *XXVIII Italian Psychology Association Conference, Experimental Psychology Section*, Lucca (IT), Sep, 18th-20th 2021
- Epifania, O. M., Brancaccio, A., de Chiusole, D., Anselmi, P., & Stefanutti, L. (2023). **matRiks**: An R package for rule-based automatic generation of Raven-like matrices. Presentation at the Symposium: “New frontiers for the adaptive assessment of executive functions”, *XXVIII Italian Psychology Association Conference, Experimental Psychology Section*, Lucca (IT), Sep, 18th-20th 2021
- Epifania, O. M., Anselmi, P., & Robusto, E. (2023). Cut it short: A new item response theory-based approach for shortening tests. Presentation at the *Meeting of the Association of Applied Statistics*, Bologna (IT), Sep, 6th-8th 2023
- Epifania, O. M., Brancaccio, A., de Chiusole, D., Anselmi, P., & Stefanutti, L. (2023). **matRiks**: An R package for rule-based automatic generation of Raven-like matrices. Presentation at the *Meeting of the European Mathematical Psychology Group*, Amsterdam (NL), Jul, 18th-21th 2023

2022

- Epifania, O.M., Anselmi P., & Robusto, E. (2022). Don’t say CAT: New Item Response Theory approaches for developing short test forms. Presentation in the Symposium “Recent Advances in Psychometrics II”, *XXX Conference of the Italian Psychology Association Padova*, Padova (IT) Sep, 27th-30th 2022

- Epifania, O.M. (2022). The Rasch model: Questionnaires and beyond. Presentation in the Symposium “Connecting People and Ideas from Psychology and Statistics: The Psicostat Experience”, *XXX Conference of the Italian Psychology Association Padova*, Padova (IT), Sep, 27th-30th 2022
- Epifania, O.M., Anselmi P., & Robusto, E. (2022). Pauci sed boni: New Item Response Theory-based procedures for shortening tests. Presentation at the *Meeting of the European Mathematical Psychology Group 2022*, Rovereto (IT), Sep, 5th-7th 2022
- Epifania, O.M., Anselmi P., & Robusto, E. (2022). Pauci sed boni: An Item Response Theory approach for shortening tests. Poster presentation at the *International Meeting of the Psychometric Society (IMPS)*, Bologna (IT), July, 11th-15th 2022

2021

- Epifania, O.M., Anselmi P., & Robusto, E. (2021). Risposta sbagliata! L'effetto del feedback sulla performance all'Implicit Association Test [Wrong response! The feedback effect on the performance at the Implicit Association]. Presentation at the *XXVII Italian Psychology Association Conference, Experimental Psychology Section*, Lecce (IT), Sep, 8th-10th 2021
- Epifania, O.M., Anselmi P., & Robusto, E. (2021). Less is more: Una procedura Item Response Theory per lo sviluppo di forme brevi di test. [Less is more: An Item Response Theory Procedure for shortening tests] Presentation at the *XXVII Italian Psychology Association Conference, Experimental Psychology Section*, Lecce (IT), Sep, 8th-10th 2021

2020

- Epifania, O.M., Anselmi P., & Robusto, E. (2020). Non separare dopo quello che hai somministrato insieme prima: Un approccio misto per l'analisi congiunta delle misure implicite. [Don't split what you administered together. A mixed model approach for the concurrent analysis of implicit measures] Presentation at the *XXVI Italian Psychology Association Conference, Experimental Psychology Section*, Sep 2th-4th 2020
- Epifania, O.M., Anselmi, P., & Robusto, E. (2020). Scoring the implicit: The `implicitMeasures` package. Oral poster presentation @ useR!2020 Virtual Conference, July, 7th-9th 2020. Retrievable @ <https://www.youtube.com/watch?v=INa426Ru40Y&list=PL4IzswWztPdmqml-u7PvYOVldSvD7kjby&index=5>
- Epifania, O.M., Anselmi, P., & Robusto, E. (2020). Scoring the Implicit Association Test has never been easier: DscoreApp. Shiny demo presentation @ eRum 2020 Virtual Conference, June, 17th-20th June. Retrievable @ <https://github.com/OttaviaE/erum2020program>
- Epifania, O.M. (2020). Filling the gap between implicit and behavior: A Rasch modeling of the Implicit Association Test. Presentation, *Cognitive Science Arena*, Bressanone-Brixen (IT), Feb, 7th-8th (Third position “Best presentation”).

2019

- Epifania, O. M., Anselmi, P., & Robusto, E. (2019). DscoreApp: Una Shiny Web application per il calcolo del *D* score. [DscoreApp: A shiny web application for the computaion of the *D* score], Presentation at the *XXV Conference of the Italian Psychology Association, Exeperimental Pscyhology, Experimental Psychology Section*, Milano (IT), Sep, 18th-20th 2019

2018

Epifania, O.M., Robusto, E., & Anselmi, P. (2018). Rasch gone mixed: A mixed model approach to the Implicit Association Test. Presentation at the *Meeting of the European Mathematical Psychology Group 2018*, Genova, 30th July – 2nd August 2018.

2017

Panarello, S., Pronesti, A., Epifania, O. M., Priolo, E. et al. (2017). Afachia Pediatrica Monolaterale e Bilaterale: Valutazione delle Modificazioni Refrattive e del Risultato Funzionale. Presentation at the XXXXII Conference of the Oftalmologic Society, Genova (IT), Oct, 6th-7th 2017

Epifania, O. M. (2017). Now you see me: Personality predictors of tattoos visibility. Presentation at the *Cognitive Science Arena 2017*, Bressanone-Brixen (IT), Feb 17th-18th 2017

2016

Benigno V., Epifania O.M., Fante, C., Ravicchio, F., & Caruso, G. (2016). Which technological skills and teaching strategies for inclusive education: Synergies and discordances. Presentation at the *International Conference of Education, Research, and Innovation*, Sevilla (E), Nov 14th-16th 2016

Epifania, O.M., & Chiorri, C. (2016). L'analisi di variabili di conto con sovrabbondanza di zeri: Il caso della relazione tra caratteristiche di personalità e numero di tatuaggi. [Data analysis with zero over dispersion: The relationship between personality characteristics and number of tattoos] Presentation at the *XXII Conference of the Italian Psychology Association, Experimental Psychology Section*, Roma (IT), Sept 20th- 22nd 2016