Ottavia M. Epifania, Ph.D.

GitHub: https://github.com/OttaviaE
Open Science Framework: https://osf.io/profile/
Personal Website

Email : otta.epifania@gmail.com
Phone: +39-3479261377
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, Confirmed for the Academic Year 2023/2024

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 Andrighetto, 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

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 Genova, IT
University of Genova *Nov 2012 - Nov 2014*
Supervisor: Prof. Carlo Chiorri

Thesis: Pratiche di Body Modifications: Associazione con la tendenza al self injury e con i tratti di personalità

- **Bachelor Degree in Psychology, 109/110** — Genova, IT
  University of Genova — *Oct 2012 - Oct 2009*
  Supervisor: Dr. Paola Cardinali

  Thesis: Violenza e processi Psicosociali: Il G8 di Genova

Previous work experience

- **Temporary research fellow** — Padova, IT
  University of Padova — *Feb 2021 - June 2022*
  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

- **Translator** — Busto Arsizio, IT
  EduVal Project srl — *Sep 2018 - Dec 2018*
  English-Italian translations of documents, reports, tests for the OECD-SSES project

- **Temporary research fellow** — Genova, IT
  Educational Technologies Institute - National Research Council — *May 2016 - Sept 2017*
  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.

Teaching Experience

- **Statistical Pscyhometrics** — Milan, IT
  60-hour course, 8 c.f.u. — *Since A.Y. 2021/2022*
  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

- **An introduction to Item Response Theory Models with R** — Rovereto, IT
  6-hour Seminar — *November, 17th, 2023*
  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/

- **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).

  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 (bult-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), LaTeX(`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**: Member of the Psicostat group since 2020, 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 (TquanT)** 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 new Item Response Theory-based approach for shortening tests *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* [First round of review]

PUBLICATIONS IN PEER-REVIEWED JOURNALS

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 effciency 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 thttps://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., Stefanutti, L., Anselmi, P., Brancaccio, A. & de Chiusole, D. (2023). Le misure in psicologia sono significanti? Il caso del test della Torre di Londra. Presentation at the Symposium: "Crisi di replicabilit'a o crisi di validità? L'importanza delle misure", *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=PL4IzsxWztPdmqml-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 Oftalmolgic 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, Exeperimental Pscyhology Section*, Roma (IT), Sept 20th- 22nd 2016