

# Federico Ferrero

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| Personal Portfolio & work samples: <https://federico-jf.github.io/work%20samples/>  
| Academia.edu: <https://cordoba.academia.edu/FedericoFerrero>

*Experience in educational research for 10 years (Doctoral and Postdoctoral Fellow at CONICET, Argentina) about Learning and Academic Analytics in Higher Education. Training in collection, analysis, curation, manipulation, and processing of large sets of data using statistical software and programming languages. Knowledge in quantitative research with experience building SQL queries and using R programming language in regression models, text mining, data visualization, and knowledge mining. Experience in international research and projects for institutional strengthening with digital technologies. Problem-solver, adaptable, organized, quick and passionate learner, tech-savvy. Interested in humanistic discussions about technology.*

## Education

**Master in Social Data Analytics and Research**, The University of Texas at Dallas, USA, 2021.

**Ph.D. in Education Sciences**, National University of Cordoba, Argentina, 2016. Thesis: "Learning Informal Logic and use of new technologies for diagramming arguments: a study case at the National University of Cordoba".

**Bachelor in Psychology**, National University of Cordoba, Argentina, 2014.

**Bachelor in Education Sciences** (Educational Technology), National University of Cordoba, Argentina, 2011.

## Skills

- Learning and Academic Analytics approach.
- SQL, relational databases, and R programming language.
- Quantitative research methods: descriptive, inferential, and predictive statistics. Text mining techniques. Knowledge Mining.
- Qualitative research methods: Grounded Theory and ethnographic procedures.
- Strong research training.
- Analytical skills.
- Quantitative and qualitative analysis software (RStudio, QDA Miner Lite, Weft QDA, SPSS, STATA, Advanced Excel).
- Data visualization: R, Power BI, Tableau, Falcon, Shiny apps.
- Social Network Analysis (R, Gephi, UCINET).
- Geographic Information System software applications: ArcGIS Pro and GIS Esri.
- Bibliographic mapping: SicMAT tools.
- Git and GitHub.
- API and data collection.
- Instructional design theories & methods: digital content creation and edition.
- E-Learning and Learning Management Systems (Moodle and Blackboard).
- Open Journal Systems (OJS).
- Bilingual: Spanish (native) / English (fluent).
- Team-player & autonomous worker.
- Written, visual & oral communication.
- Programming languages for kids: Scratch, Alice, Minecraft modding, Pilas Bloques, etc.

## Work experience

### Instructional Specialist at Dallas College

(October 2019- present). SharePoint design and maintenance. Information Management System. Pedagogical support with Blackboard and in specific online programs (USA Learns, Essential Education, and CSM Learn). Reporting students' activities. Information Management System. Dallas, USA.

### Educational Researcher

**Postdoctoral research position** (2017- 2019) with CONICET grant (National Scientific and Technical Research Council), Argentina. Research topic: children computer programming learning from the Sociocultural Approach.

**Doctoral research position** (2012-2017) with CONICET grant (National Scientific and Technical Research Council), Argentina. Research topic: Informal logic learning with Social Network Analysis software to represent argumentative diagrams.

Publication of articles and book chapters and oral presentations at international conferences on Educational Technology and Theories of Learning.

See: <https://cordoba.academia.edu/FedericoFerrero>

Research and developed of educational technology projects in national multidisciplinary research teams (National University of Cordoba, Argentina) as well as in international research teams (Stellae Team, University of Santiago de Compostela, Spain).

*Visitor researcher:* University of Santiago de Compostela (Spain), 2011-2012 and 2014, Tutor: Dr. Adriana Gewerc / University of Cordoba, KDIS Team, Knowledge Discovery and Intelligent Systems (Spain), 2014, Tutor: Dr. Sebastián Ventura / State University of Campinas (UNICAMP) (Brazil), 2014, Tutor: Dr. Luci Banks Leite / University of California at San Diego, Lab of Comparative Human Cognition (LCHC) (USA), 2018, Tutor: Dr. Stefan Tanaka / University of Texas at Arlington, LINK Research Lab (Learning Innovation and Networked Knowledge Research Lab) (USA), 2018, Tutor: Dr. George Siemens.

## Teaching Work

**Statistics and Educational Information Systems** Assistant Professor (2017). National University of Cordoba. School of Philosophy and Humanities, Educational Sciences. Argentina.

**Logic and Epistemology** Associate Professor (2017). Catholic University of Cordoba. School of Philosophy and Humanities. Argentina.

**Leveling course for first-year students of Educational Sciences**, Assistant Professor (2017). National University of Cordoba. School of Philosophy and Humanities, Educational Sciences. Argentina.

**Educational Technology** trainer at different government agencies (2016-2017). Argentina.

**Academic Reading and Writing Workshop** Substitute Professor (2015-2017). Provincial University of Cordoba, School of Education. Argentina.

**Learning Theories** Substitute Professor. National University of Villa Maria (2014). Argentina.

## Research Assistant - Instructional Designer

(2010-2011). Educational Technology Department at National University of Cordoba. Argentina.

Participation as a researcher in innovation projects of teaching in Higher Education with ICT in collaboration with other Latin American and Spanish universities (Financing granted by the Spanish Agency for International Development Cooperation: AECID).

Design and development of engaging curriculum and multimedia learning resources employing a diverse set of content creation tools.

Management and training in Learning Management Systems and tools for creating educational content. Management of online communications among students, Professors, and university representatives.

## Awards

University Award for Academic Excellence awarded by the National University of Cordoba. Diploma with Honorable Mention corresponding to the Bachelor in Education Sciences, 2009. Argentina.

Doctoral thesis publication awarded by the School of Philosophy and Humanities (National University of Cordoba) due to outstanding Ph.D. dissertation, 2018. Argentina.

## Volunteer Work

Graduated-collaborator in **Learning Theories**. National University of Cordoba. School of Philosophy and Humanities, Educational Sciences, 2011-2017.

Graduated-collaborator in **Informal Logic**. National University of Cordoba. School of Philosophy and Humanities, Philosophy, 2012-2014.

Tutoring and counseling freshmen students / Virtual support in blended-learning courses / Producing reports to analyze the introduction of MOOCs in National University of Cordoba / Organization and management of seminars and scientific events / E-book and Journal edition work. National University of Cordoba, Argentina, (2010-2017).

*USA Employment Authorization (work permit) approved and available.*