YIRAN (VICKY) ZHAO

Developmental Psychology ‖ Education Policy ‖ Psychometrics ‖ Econometrics
Faculty of Education, University of Cambridge, 184 Hills Rd, Cambridge CB2 8PQ
yz462@cam.ac.uk or vickyyiranzhao@gmail.com

EDUCATION AND EMPLOYMENT

Postdoctoral Research Associate, University of Cambridge, UK   *July 2023 - present*
- Leading the quantitative impact evaluation of Tanzanian government's adoption of an award-winning life skill curriculum known as *My Better World* (N=2000+), a collaborative study between CAMFED, University of Dar Es Salaam and Univeristy of Cambridge
- Pioneering current understandings on the mechanisms behind successful adoption of NGO's social emotional learning curriculum by governments in low and middle income countries, ultimately improving the scalibility and generalisability of effective school-based education interventions.

Affiliated lecturer, University of Cambridge, UK   *Oct 2022 - present*
- Lecturing propensity score matching, longitudinal data analysis and panel data analysis at the *Social Sciences Research Methods Programme* to more than 200 graduate students, postgraduate students and academic staffs across all schools at the University of Cambridge each year.
- Designing, developing and organising moodle resources, in-person/online lectures and practical sessions using Stata and SPSS.
- Teaching a series of quantitative research methods at both undergraduate and graduate levels, including ANOVA, MANOVA, linear and logistic regression analyses.
- Examining and marking undergraduate papers on quantitative research methods.

Postdoctoral Researcher and Consultant, New York University and Research Triangle Institute, USA   *July 2022 - August 2023*
- Led the impact evaluation of the *largest-mass-media-based RCT* in Jordan to date, which significantly improved the social and emotional learning of more than 4000 Jordanian and Syrian children, a collaborative study between New York University (NYU) Global TIES, Sesame Workshop and the International Rescue Committee (IRC).
- Led the psychometrics analyses of *a multimodal student-teacher engagement measurement toolkit* , involving 150 schools across Colombia, Ghana and Kenya. This is a transcontinental effort to address the lack of progress in achieving Sustainable Development Goal 4.1 through monitoring quality learning and teaching in classrooms through observations, teacher-report and student-report surveys.
- Managed, cleaned, and analysed 180,000+ qualitative and quantitative data using Dedoose, Stata and MPlus.
- Presented the study results to key stakeholders, including Ministry of Education in Jordan, and communicated the results to wider audience through *policy briefs* and *reports*.

PhD in Psychology and Education, University of Cambridge, UK   *October 2018 - January 2023*
Awarded the extremely competitive (1 in 80) and prestigious Lego Foundation Cambridge Trust Scholarship
- Developed *a novel framework* to theorise the effects of peer play in early years on children's mental health development and provided empirical evidence to support this framework using observations from almost 2000 Australian children. This study received an Altmetrics score of 1500, ranked 99th percentile among all journals of a similar age, and attracted attention from 197 global media outlets, including *the Guardian* and *US News and World Report*.
- Designed a multi-modal longitudinal study using 1200 observational data and self-report data drawn from a birth cohort study in Germany to replicate and extend current understandings on the disparities in early home mathematics learning. This study is published in *Child Development* , a top journal in the field of developmental and educational psychology.

- Originated the use of *propensity score matching* in understanding the influence of symbolic play skills on autistic children's structural language development.

MicroMaster in Data, Economics and Design of Policy, Massachusetts Institute of Technology, USA *May 2018 - May 2023*

Microeconomics; Data Analysis for Social Scientist; Foundations of Development Policy: Advanced Development Economics; Good Economics for Hard Times; Designing and Running Randomized Evaluations
- Applied the data analytical skill sets and policy evaluation insights to lead the analyses of
the India Early Childhood Education Impact study , a top 10 finalists for Best of UNICEF Research 2019

MPhil in Educational Research, University of Cambridge, UK *October 2017-July 2018*

Distinction and Best Dissertation Award
- Assisted the design and evaluation of a higher education widening participation programme called
the Scholars Programme by the Brilliant Club.
- Assisted the literature review of existing evidence in England on whether vocational education and training has boosted social mobility and contributed towards the report by *the Social Mobility Commission* .

BA and MA (Hons) in Education with Physics, University of Cambridge *October 2014-July 2017*

First Class, Horobin Prize, CUQM/Sage Prize and Top 7 Undergraduate Part II Dissertation
- Assisted the pilot study of *the Learning and Employability Gain Assessment Community Project* (LEGACY)
- Achieved Top 7 Undergraduate Part II Dissertation by conducting secondary data analyses on the first round LEGACY data across the School of Humanities and Social Sciences

Cambridge International AS & A Levels, the High School Affiliated to Renmin University (RDFZ), China *September 2011- July 2014*

A highly selective state secondary school and the only school representing mainland China in *G30 schools*
- Achieved A Levels: A* Maths (92 %) , A* Physics (92 %), A* Chemistry (93 %), A* Economics (93 %), and A Further Maths (89 %)
- Awarded *Minzuho Bank International Scholarship*

FUNDINGS AND AWARDS

1. **Lego Foundation Cambridge Trust Scholarship**, £135,000, October 2019

2. **Best Dissertation Award for MPhil thesis**, October 2018

3. **Top 7 Undergraduate Part II Dissertation** for one of the seven best undergraduate dissertations across the School of Humanities and Social Sciences, July 2017

4. **Horobin Prize** for the Best First in Education Tripos by Homerton College at University of Cambridge, £500, July 2017

5. **Cambridge Undergraduate Quantitative Methods/Sage Prize** for achieving the highest Score in Statistics in Social Science across Faculty of Human and Faculty of Social, and Political Science at University of Cambridge, £300, July 2017

PUBLICATIONS

Zhao, Y.V., Gibson, J. (2023). Home mathematics environment at age 2- and 5-years predicts children's mathematical skills at age 4- and 6-years after controlling for sociodemographic background and prior mathematics attainment: a longitudinal secondary data analysis using video observations and survey data. *Child Development.* https://srcd.onlinelibrary.wiley.com/journal/14678624

Zhao, Y.V., Bhattacharjea, S., Alcott, B. (2023). Slippery slope: early learning and equity in rural India. *Oxford Review of Education.* https://doi.org/10.1080/03054985.2022.2101442

Zhao, Y.V. (2023). Play more and play better: why play in early years is important for children's future language, mathematical and mental health development? (Doctoral thesis). `https://www.repository.cam.ac.uk/handle/1810/345066`

Jukes, M.,Betts, K., Dubeck, M.P., Edwards, L., Yoshikawa, H., Gjicali, K., Kim, S., Mahbub, T., Montagut, M., Moran, C., Patanka, K.U., Rosenbach, S., Saleh, H.M., Strouf, K., **Zhao, Y.V.** (2022). Playful Learning Across the Years (PLAY) Measurement Toolkit: Full Report. `https://cms.learningthroughplay.com/media/3qcajhg1/play-1-0-full-report-december-2022.pdf`

RTI International and NYU-Global Ties. (2022). PLAY Toolkit Guide to Analysis. `https://cms.learningthroughplay.com/media/n2afia0j/play-section-8-guide-to-analysis.pdf`

Tai, K.W.H **Zhao, Y.V.** (2022). Success Factors for English as a Second Language University Students' Attainment in Academic English Language Proficiency: Exploring the Roles of Medium-of-Instruction and Learners' Variable. *Applied Linguistics Review.* `https://doi.org/10.1515/applirev-2022-0049`

Zhao, Y.V., Gibson, J. (2022). Evidence for protective effects of peer play in the early years: better peer play ability at age 3 predicts lower risks of externalising and internalising problems at age 7 in a longitudinal cohort analysis.*Child Psychiatry and Human Development.* `https://doi.org/10.1007/s10578-022-01368-x`

Zhao, Y.V., Gibson, J. (2022). Solitary symbolic play, object substitution and peer role play skills at age 3 predict different aspects of age 7 structural language abilities in a matched sample of autistic and non-autistic children. *Autism Developmental Language Impairments*, 7, `https://doi.org/10.1177/23969415211063822`

Sabates, R., **Zhao, Y.V.**, Mitchell, R., Ilie, S. (2021). Understanding the Non-market Social Benefits of Higher Education in Ethiopia: An Empirical and Contextual Analysis using Young Lives. *Journal of Education Finance*, 47(1), 45–70. `https://muse.jhu.edu/article/806386`

Archer, R., Higton, J., Sibieta, L., Tahir, I., Trammell, L. T., Ilie, S., Vignoles, A., **Zhao, Y.V.** (2021). The road not taken: the drivers of course selection: The determinants and consequences of post-16 education choices. `https://dera.ioe.ac.uk/38405/2/The_road_not_taken_-_review_of_literature.pdf`

Zhao, Y.V., Kulkarni, K., Gibson, J., Baker, S., Ramchandani, P. G. (2019). Introducing the Play in Education, Development and Learning (PEDAL) Research Centre. *International Journal of Play*, 8(3), 308–319. `https://www.tandfonline.com/doi/full/10.1080/21594937.2019.1684144`

UNDER REVIEW

Moran, C., Hilgendorf, D., **Zhao, Y.V.**, Al-Ogaily1, D., Yoshikawa, H., Schwartz, K., Rafla, J., Molano, A., Strouf, K., Khanji, M., Seriah, R.A., Aabed, M.A., Fityan, R., Sloane, P., Hussein, L., Hidayah, D., Shukri, M., Sharawi, T., Foulds, K., Bowden, A.B., Lee, S., Tiwari1, P and Behrman, J. (under review). Impact of a Mass Media Program on Children's Emotion Knowledge, Recognition, and Regulation in Jordan: a Cluster-Randomized Controlled Trial.

Moran, C., Kim, K., **Zhao, Y.V.**, Yoshikawa, H., Jukes, M and Li, C. (under review). Measuring Support for Children's Self-Sustaining Engagement in Learning in Jordan: Validation of a Classroom Observation Tool.

Jukes, M., **Zhao, Y.V.**, Dubeck, M.M., Betts, K., Nduku,T., Stern, J., Maldonado,C and Yoshikawa, H. (under review). Measuring support for primary school students' engagement in learning: psychometric properties of the PLAY tools in Kenya, Ghana and Colombia

TEACHING

1. **Undergraduate final year dissertation supervisor, Faculty of Education, University of Cambridge, UK**, 2022-present

2. **Undergraduate supervisor, Faculty of Education, University of Cambridge, UK**, 2022-present
- Education, Neuroscience and Society (Year 3, essay and coursework based)
- Play, Creativities and Imagination (Year 3, coursework based)
- Changing landscapes of childhood and youth: history, experience and culture (Year 3, essay-based assessment)
- Critical Debates in Education, Policy and International Development (Year 3, essay-based assessment)
- PBS3 Social and Developmental Psychology (Year 2, essay-based assessment)
- International Issues in Inclusion and Diversity (Year 2, essay-based assessment)

3. **Undergraduate supervisor and examiner in Statistics in Social Science, Faculty of Education, Faculty of Human, Social and Political Sciences, Institute of Criminology, University of Cambridge, UK**, 2019-present

4. **Affiliated Lecturer and Demonstrator, Social Science Research Method Programme, University of Cambridge, UK**, 2018- present
Assisted practical sessions on ANOVA, linear regression analyses, logistic regression analyses, regression discontinuity, propensity score matching, difference-in-difference, instrumental variable using Stata

SELECTED MEDIA COVERAGE OF MY RESEARCH

Andrianaly, G. (2022, June 16). Sant´e mentale: Il est bon de jouer avec des copains avant l'´ecole. **Pourquoi Docteur**.

Knapton, S. (2022, June 14). Young children may be at greater risk of mental health problems after pandemic isolation. **The Telegraph**.

Kirby, J. (2022, June 14). Young children who play with others their age 'have better mental health'. **The Independent**.

Mann, D. (2022, June 14). Why Getting Along in Preschool Is So Important. **US News & World Report**.

the Times. (2022, June 14). Play aids mental health.**The Times and The Sunday Times E-Paper**, p6.

Weale, S., correspondent, S. W. E. (2022, June 14). Improved mental health for children who play well with peers by age three. **The Guardian**.

SELECTED INVITED TALKS

Early home learning support, **Global Parenting Initiative Research Series**, University of Oxford, 26th of October, 2022

Peer play and mental health, **Play Symposium**, Aarhus University, University of Cambridge and Harvard University, 20th of April 2021

The role of education in equality of opportunity and individual experience of social mobility in the Chinese context, **British Association for International and Comparative Education Conference**, 14th of September, 2018

Higher education students' self-regulated learning: the role of critical processing and epistemological beliefs, **Society for Research into Higher Education Newer Early Career Researchers Conference**, 5th of December, 2017

SKILLS

1. Statistical softwares
Fluent in R, Mplus, Stata, SPSS, Excel and Dedoose

2. Quantitative research methods
ANOVA, linear and logistic regression analyses, regression discontinuity, propensity score matching, difference-in-difference, instrumental variable, randomised controlled trials, structural equation models, latent growth

curve models and meta-analysis

3. Specialism
Econometrics: Methods and Applications offered by Erasmus Universiteit Rotterdam. Grade: 92%
Miracles of Human Language: An Introduction to Linguistics offered by Universiteit Leiden: 91%
Autism Spectrum Disorder offered by University of California, Davis: 97%
Microeconomics offered by MIT MicroMasters Data, Economics, and Development Policy. Final Grade: 90%
Data Analysis for Social Scientist offered by MIT MicroMasters Data, Economics, and Development Policy. Final Grade: 94%

4. Language
Mandarin Chinese (Native)
English (Native/Bilingual proficiency)
French (Intermediate 1 CEFR B1)