Annex A – Studentship Application Form

Title of proposed research – Advanced Quantitative Methods pathway


Your research proposal.

IMPORTANT: There is a strict 1300-word limit, fully inclusive of everything except references. This includes all the written text, quotes, in-line citations, section headers, captions, the contents of tables and any foot-/endnotes. Each figure/graphic should be counted as equivalent to 200 words. Tables should be counted as the number of words they contain. Proposals that are found to be overlength will be rejected. Remember that if you are applying to one of our interdisciplinary programmes, a clearly articulated interdisciplinary approach should be evident.

Introduction

By the end of 2020, women led only 20 out of the 195 countries recognised by the UN and occupied only a quarter of parliamentary seats globally (UN, 2020). Plenty of evidence indicates that more women in leading roles are needed because their voices result in gender-responsive policy reforms: women’s right to be free from gender-based violence, and improvements in women’s labour rights (Taylor-Robinson & Heath, 2003; IDEA, 2020). Moreover, the social mobilisation literature provides antecedents on women successfully advocating for improved local environments (e.g. social housing) and increased transparency in government decision-making (Domingo et al., 2015).

While the factors that influence women’s participation across the political and social spheres (Coffé & Bolzendah, 2010) are extensively investigated, most research has focused on adult population (Treviño et al. 2021; Quaranta, 2019). Very little is known about the paths followed by young women to gain political or economic influence and leadership (Barber & Torney-Purta, 2009). Furthermore, current approaches fail to consider cross-cultural comparability and to link theoretical conceptualizations of political socialization to empirical measurement, particularly among school-age populations.

I propose to analyse these issues from the political socialization framework. From this perspective, gender as a social construct has many political ramifications that depend on cultural and political contexts (Mayer & Schmidt, 2004; Miranda et al., 2020; Knowles et al., 2018). The configuration of these ramifications is also associated with the values, attitudes, and knowledge that families, schools, and other authority figures inculcate in individuals (Torney-Purta, 2000).

Most studies have focused on isolated aspects of participation (e.g. voting) (Van Deth, 2014). I will use the framework developed by Miranda, Castillo, and Sandoval-Hernandez (2020), which conceptualized citizen participation as an umbrella term that distinguishes three domains: formal, activist, and community participation.

Objective and research questions

The overall objective is to investigate the factors and mechanisms that explain different forms of young women’s citizen participation across different cultural contexts and time.
The overall objective is articulated into six research questions (see Figure):

RQ1) Can the profiles of women’s citizen participation described in the literature (i.e., formal/activist/community) be distinguished in a cross-national sample?

RQ2) To what extent are these profiles validly comparable across countries with different characteristics (i.e. global state of democracy) and overtime?

RQ3) What are the family factors associated with each profile?

RQ4) What are the school factors associated with each profile?

RQ5) What are the system factors associated with each profile?

RQ6) Are the factors postulated in the full model stable overtime and across countries?

**Methodology**

The data for this project stems from two main sources:

- IEA International Civic and Citizenship Education Study (ICCS 2009-2016-2022). ICCS collects data from representative samples of 8th-grade students, their teachers and school principals in more than 40 countries (see Schulz, et al., 2018).


Since all data is secondary, already anonymised and publicly available no ethical concerns are foreseen.

**Analytical strategy**

The features of the dataset (complex sample: stratified, multi-stage; complex assessment design: multiple matrices with rotated blocks) will be considered when running all analyses (e.g. by using sampling weights, replicated weights, fixed/random effects, and multiple imputations - plausible values).

For each model, I will investigate the mechanisms that explain different forms of women’s citizen participation by first estimating the effect-size of determinants in a pooled sample (male&females). Should differences emerge (as expected) across gender groups, the remainder of the research will focus on females.

**RQ1)** To evaluate if the profiles can be identified in the cross-national sample, I will use multigroup latent profile analysis, in particular the structural homogenous model (Kankaraš & Vermunt, 2015). In this approach the number of latent classes are free to vary across (not between) countries.

**RQ2)** To evaluate the cross-cultural comparability of the latent profiles, I will compare the structurally homogenous specification to its partially homogenous counterpart to identify sources of invariance between the selected indicators (Masyn, 2017). This procedure allows evaluating to which extent the chosen indicators can generate comparable profiles between countries. A similar procedure is used to compare the model equivalence over time (**RQ6**).

To answer **RQ3**, **RQ4** and **RQ5**, a three-level multinomial multilevel model will be used (a base category logit model, with random intercepts for schools and countries). Family factors (RQ3) will be studied as students attributes that condition students’ relative profile membership across schools, across countries. School factors and processes (RQ4) are studied as direct effects to school random intercepts, while system factors (RQ5) are expressed in this model as direct effects towards country random intercepts.
Schools and countries intercepts are assumed to be conditioned by a single random term, with a mean of zero, and orthogonal variance components, one for each level.

Collaboration and impact

The research will involve collaboration with the International Association for the Evaluation of Educational Achievement (IEA), including training in advanced quantitative methods and substantive knowledge-exchange regarding the secondary analysis of the data produced by IEA (Letter 1). The overseas visit and collaboration with the members of Inquiry Methodology Lab (led by Dr Rutkowski) at the University of Indiana, will expand my knowledge of latent variable modelling and cross-cultural measurement, and will allow me to develop statistical techniques ad-hoc for international large-scale assessments (Letter 2).

This project aims to contribute to current research on women’s citizen participation in three main respects. First, by proposing a conceptual model of young women’s citizen participation that integrates current developments into comprehensive frameworks based on adult and youth populations. Second, by testing this framework for measurement equivalence to ensure its valid application to different contexts. Third, by developing open-software routines to apply sophisticated statistical models on data with complex sample and assessment design, which are not broadly available in commercial software (e.g. multinomial multilevel models).

The project will also provide elements to understand the mechanisms underlying observed gender-based inequalities in civic participation, which is important because they constitute a threat to the legitimacy of democracy (Levinson, 2007), and ultimately to human rights (UN 2020).

Finally, this project is aligned with the ESRC priority: “Trust and global governance in a turbulent age”, as it refers to international comparative research that utilises a range of research methods to interpret the evolving nature of democratic systems.

Timescale:

The research will be achieved within the 1+3 timeframe as follows:
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