



## Annex A – Studentship Application Form

<p><b>Title of proposed research – Advanced Quantitative Methods pathway</b></p>
<p>Young Women’s Citizen Participation and the Mechanisms Underlying It: A Multilevel Latent-Class Longitudinal Framework.</p>
<p><b>Your research proposal.</b></p> <p><b>IMPORTANT: There is a <u>strict</u> 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.</b></p>
<p><b>Introduction</b></p> <p>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 <b>more women in leading roles are needed</b> 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 &amp; 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).</p> <p>While the factors that influence women’s participation across the political and social spheres (Coffé &amp; Bolzendahl, 2010) are extensively investigated, most research has focused on adult population (Treviño et al. 2021; Quaranta, 2019). <b>Very little is known about the paths followed by young women to gain political or economic influence and leadership</b> (Barber &amp; 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.</p> <p>I propose to analyse these issues from the <b>political socialization framework</b>. From this perspective, gender as a social construct has many political ramifications that depend on cultural and political contexts (Mayer &amp; 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).</p> <p>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 <b>citizen participation as an umbrella term</b> that distinguishes three domains: formal, activist, and community participation.</p> <p><b>Objective and research questions</b></p> <p>The <b>overall objective</b> is to investigate the factors and mechanisms that explain different forms of young women’s citizen participation across different cultural contexts and time.</p>



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 8<sup>th</sup>-grade students, their teachers and school principals in more than 40 countries (see Schulz, et al., 2018).
- Global State of Democracy Indices ([GSoD](#)). GSoD measures democratic performance for 163 countries using data from 11 different sources (see Skaaning, 2019).

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:



Milestones/Products	2021				2022				2023				2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
MRes																				
PhD project plan																				
Manuscript 1 (RQ1+RQ2)	Literature review																			
	Data analysis																			
	Writing-up																			
Visit to Indiana University																				
Manuscript 2 (RQ3+RQ4+RQ5)	Literature review																			
	Data analysis																			
	Writing-up																			
IEA placement																				
Manuscript 3 (RQ6)	Literature review																			
	Data analysis																			
	Writing-up																			
Manuscript 3 (RQ6)																				
Drafting & submitting PhD thesis																				

**Word count (please complete):**

**References (Bibliography) (not included in your Word count)**

Barber, C., & Torney-Purta, J. (2009). Gender differences in political efficacy and attitudes toward women's rights as influenced by national and school contexts: Analysis from the IEA Civic Education Study. In *International Perspectives on Education and Society* (Vol. 10). [https://doi.org/10.1108/s1479-3679\(2009\)0000010014](https://doi.org/10.1108/s1479-3679(2009)0000010014)

Brincks, A. M., Enders, C. K., Llabre, M. M., Bulotsky-Shearer, R. J., Prado, G., & Feaster, D. J. (2017). Centering Predictor Variables in Three-Level Contextual Models. *Multivariate Behavioral Research*, 52(2), 149–163. <https://doi.org/10.1080/00273171.2016.1256753>

Coffé, H., & Bolzendahl, C. (2010). Same game, different rules? gender differences in political participation. *Sex Roles*, 62(5–6), 318–333. <https://doi.org/10.1007/s11199-009-9729-y>

Domingo, P., Holmes, R., Neil, T. O., Jones, N., Bird, K., Larson, A., ... Valters, C. (2015). *Women's voice and leadership in Assessing the evidence Women voice and leadership in decision-making*. Retrieved from [https://assets.publishing.service.gov.uk/media/57a08977e5274a31e0000c4/Womens\\_Voice.pdf](https://assets.publishing.service.gov.uk/media/57a08977e5274a31e0000c4/Womens_Voice.pdf)

IDEA. (2020). Taking stock of progress on gender equality using the Global State of Democracy Indices: Twenty-five years since the Beijing World Conference on Women. In *Taking stock of progress on gender equality using the Global State of Democracy Indices: Twenty-five years since the Beijing World Conference on Women*. <https://doi.org/10.31752/idea.2020.9>



- Kankaraš, M., & Vermunt, J. K. (2015). Simultaneous Latent-Class Analysis Across Groups. *Encyclopedia of Quality of Life and Well-Being Research*, (1974), 5969–5974. [https://doi.org/10.1007/978-94-007-0753-5\\_2711](https://doi.org/10.1007/978-94-007-0753-5_2711)
- Knowles, R. T., Torney-Purta, J., & Barber, C. (2018). Enhancing citizenship learning with international comparative research: Analyses of IEA civic education datasets. *Citizenship Teaching and Learning*, 13(1), 7–30. [https://doi.org/10.1386/ctl.13.1.7\\_1](https://doi.org/10.1386/ctl.13.1.7_1)
- Levinson, M. (2007). The Civic Achievement Gap. *CIRCLE Working Paper*, 51, 2–14.
- Masyn, K. E. (2013). Latent Class analysis and finite mixture modeling. In T. D. Little (Ed.), *The Oxford Handbook of Quantitative Methods* (1st ed., Vol. 2, pp. 551–611). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199934898.013.0025>
- Masyn, K. E. (2017). Measurement Invariance and Differential Item Functioning in Latent Class Analysis With Stepwise Multiple Indicator Multiple Cause Modeling. *Structural Equation Modeling*, 24(2), 180–197. <https://doi.org/10.1080/10705511.2016.1254049>
- Mayer, J. D., & Schmidt, H. M. (2004). Gendered political socialization in four contexts: Political interest and values among junior high school students in China, Japan, Mexico, and the United States. *Social Science Journal*, 41(3), 393–407. <https://doi.org/10.1016/j.soscij.2004.04.024>
- Miranda, D., Castillo, J. C., & Sandoval-Hernandez, A. (2020). Young Citizens Participation: Empirical Testing of a Conceptual Model. *Youth and Society*, 52(2), 251–271. <https://doi.org/10.1177/0044118X17741024>
- Rights, J. D., Preacher, K. J., & Cole, D. A. (2019). The danger of conflating level-specific effects of control variables when primary interest lies in level-2 effects. *British Journal of Mathematical and Statistical Psychology*, 4, bmsp.12194. <https://doi.org/10.1111/bmsp.12194>
- Quaranta, M. (2019). What makes up democracy? Meanings of democracy and their correlates among adolescents in 38 countries. In *Acta Politica* (Vol. 55). <https://doi.org/10.1057/s41269-019-00129-4>
- Skaaning, S-E., *The Global State of Democracy Indices Methodology: Conceptualization and Measurement Framework* (Stockholm: International IDEA, 2019), <<http://www.idea.int/gsd>>
- Taylor-Robinson, M. M., & Heath, R. M. (2003). Do women legislators have different policy priorities than their male colleagues? A critical case test. *Women and Politics*, 24(4), 77–101. [https://doi.org/10.1300/J014v24n04\\_04](https://doi.org/10.1300/J014v24n04_04)
- Torney-Purta, J. (2000). Review: Comparative perspectives on political socialization and civic education. *Comparative Education Review*, 44(1), 88–95.
- Treviño, E., Carrasco, D., Claes, E. & Kennedy, K. (2021). *Good citizenship around the world*. IEA: Springer International Publishing. Forthcoming.
- UN WOMEN. (2020). *Women in Politics : 2020*. (September 2019), 2020.
- Van Deth, J. W. (2014). A conceptual map of political participation. *Acta Politica*, 49(3), 349–367. <https://doi.org/10.1057/ap.2014.6>