Peter Francis Halpin

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ACADEMIC APPOINTMENTS

Assistant Professor of Applied Statistics (tenure-track)   *Sept 2012 - Present*

> NYU Steinhardt, Department of Humanities and Social Sciences in the Professions

Postdoctoral Researcher   *Feb 2010 - April 2012*

> University of Amsterdam, Psychological Methods

EDUCATION

Simon Fraser University

> Ph.D., Psychology (Theory and Methods)   *April 2010*

University of Calgary

> M.Sc., Psychology (History and Theory)   *April 2005*
> B.A., Psychology (History and Theory)   *April 2002*

JOURNAL ARTICLES

Halpin, P. F., von Davier A. A., Hao, J., & Liu, L. (in press). Measuring student engagement during collaboration. *Journal of Educational Measurement.* Accepted as Manuscript ID # JEDM-16-OA-036.R1.

Aber, J.L., Torrente, C., Johnsthon, B., Starkey, L., Seidman, E., **Halpin, P. F.**, Shivshanker, A., Weisenhorn, N., Annan, & J. (in press) Impacts of "Healing Classroom" on children's reading and math skills in DRC. *Journal of Research on Educational Effectiveness.* `http://dx.doi.org/10.1080/19345747.2016.1236160`

Aber, J.L., Tubbs, C., Torrente, C., **Halpin, P.F.**, Johnsthon, B., Starkey, L. Shivshanker, A., Annan, J., Seidman, E. & Wolf, S. (2017). Promoting children's learning in conflict-affected countries: Evidence for multilevel change processes in a school-based universal social-emotional learning program in the Democratic Republic of Congo. *Development and Psychopathology, 29(1), 53-67.*

Cherng, H. S., & **Halpin, P.F.** (2016). A teacher like me? Student perceptions of minority versus White teachers. *Educational Researcher. 45 (7) 407-420.*

McAllister Byun, T., Harel, D., **Halpin, P. F.**, & Szeredi, D. (2016) Deriving gradient measures of child speech from crowdsourced ratings. *Journal of Communication Disorders, 64, 91-102.* `http://dx.doi.org/10.1016/j.jcomdis.2016.07.001`.

McAllister Byun, T., Swartz, M. T., **Halpin, P. F.**, Szeredi, D., & Mass, E. (2016) Direction of attentional focus in biofeedback treatment for /r/ misarticulation. *International Journal of Language & Communication Disorders, 51,* 385-401.

Halpin, P. F. & Kieffer, M. J. (2015). Describing profiles of instructional practice: A new approach to analyzing classroom observation data. *Educational Researcher, 44,* 263 - 277. `DOI:10.3102/0013189X15590804`.

McAllister Byun, T., **Halpin, P. F.**, & Szeredi, D. (2015). Online crowdsourcing for efficient rating of speech: A validation study. *Journal of Communication Disorders, 53*, 70 - 83. `DOI:10.1016/j.jcomdis.2014.11.003`.

Halpin, P. F., da-Silva, C., & De Boeck, P. (2014). A confirmatory factor analysis approach to test anxiety. *Structural Equation Modeling, 21*, 455-467. `DOI:10.1080/10705511.2014.915377`.

Halpin, P. F. & De Boeck, P. (2013). Modelling dyadic interaction with Hawkes processes. *Psychometrika, 78,* 793–814. `DOI:10.1007/s11336-013-9329-1`.

Spiegel, A. N. McQuillan, J., **Halpin, P. F.** Matuk, C., & Diamond, J. (2013). Engaging teenagers with science through comics. *Research in Science Education, 43*, 2309-2326. `DOI:10.1007/s11165-013-9358-x`.

Bungay, V., Halpin, M. A., & **Halpin, P. F.** (2012). Violence in the massage parlour industry: Experience of Canadian-born and immigrant women. *Healthcare for Women International, 33,* 262-284.

Halpin, P. F., Dolan, C. V., Grasman, R. P. P. P. & De Boeck, P. (2011). On the relation between the linear factor model and the latent profile model. *Psychometrika, 76*, 564-583. `DOI:10.1007/S11336-011-9230-8`.

Halpin, P. F. & Maraun, M. D. (2010). Selection between linear factor models and latent profile models. *Multivariate Behavioral Research, 46,* 910-934.

Lovato, C.Y., Pullman, A.W., **Halpin, P. F.**, Zeisser, C., Nykiforuk, C.I.J., Best, F., Diener, A., & Manske, S. (2010). Adolescent smoking: Effect of school and community characteristics. *Preventing Chronic Disease, 7,* 1-10.

Lovato, C. Y., Zeisser, C., Campbell, S. H., Watts, A. W., **Halpin, P. F.**, Thompson, M., Eyles, J., Adlaf, E., & Brown S. K. (2010). Individual, school, and community predictors of adolescent smoking behaviors. *American Journal of Preventative Medicine, 39,* 507-514.

Maraun, M. D. & **Halpin, P. F.** (2008). Manifest and latent variates. *Measurement: Interdisciplinary Research and Perspectives, 6,* 113-115.

Halpin, P. F. & Stam, H. J. (2006). Inductive inference or inductive behavior: Fisher and Neyman-Pearson approaches to statistical testing in psychological research (1940-1960). *American Journal of Psychology, 119,* 625-653.

BOOK CHAPTERS AND REPORTS

Halpin, P. F., & von Davier, A. A. (in press). Modeling collaboration using point processes. In A. A. von Davier, P. Kyllonen, & M. Zhu. Innovative Assessment of Collaboration. New York: Springer.

Halpin, P. F., (2016). Psychometric analysis of the Child Functioning Module: Comparisons between Serbia and Mexico. Technical report prepared for UNICEF.

Halpin, P. F., (2016). Preliminary psychometric analysis of the Early Childhood Development Index. Technical report prepared for UNICEF.

Wolf, S., **Halpin, P. F.**, Yoshikawa, H., Pisani, L. Dowd, A. J., & Borisova, I. (2016). Assessing the construct validity of Save the Children's International Development and Early Learning Assessment (IDELA). Technical report prepared for Save the Children / Global TIES for Children. (`Link to report.`)

von Davier, A. A. & **Halpin, P. F.** (2013). Collaborative problem solving and the assessment of cognitive skills: Psychometric considerations. *Education Testing Service Research Report.* Manuscript # RR-13-41. `http://dx.doi.org/10.1002/j.2333-8504.2013.tb02348.x`.

Halpin, P. F. (2013). A scalable EM algorithm for Hawkes processes. In Millsap, van der Ark, Bolt, and Woods (Eds.) *New Developments in Quantitative Psychology* (pp. 403-415). New York: Springer.

UNDER REVIEW

Wolf, S., **Halpin, P. F.**, Yoshikawa, H., Dowd, A., Pisani, L., & Borisova, I. Measuring school readiness globally: Assessing the construct validity and measurement invariance of the International Development and Early Learning Assessment (IDELA) in Ethiopia. *Early Childhood Research Quarterly.* Manuscript ID # ECRQ-S-16-00211.

RESEARCH GRANTS (REVERSE CHRONOLOGICAL FROM START DATE)

NYU Steinhardt Technology Grant   *Sept 2015 - Aug 2016*

Using Educational Technology to Support Inferences About Collaborative Problem Solving. Amount $15,000. Role: PI.

Institute of Education Sciences   *Sept 2015 - Aug 2018*

Educational Media Supports for Low-Income Preschoolers' Vocabulary Development. Amount $1,063,417. Role: Investigator (PI Neuman, NYU Steinhardt).

Economic and Social Research Council   *April 2015 - March 2017*

Toward the Development of a Rigorous and Practical Classroom Observation Tool: The Uganda Secondary School Project. Amount $250,306. Role: co-PI (PI Seidman, NYU Steinhardt).

Institute of Education Sciences (Early Career Grant)   *July 2014 - Dec 2015*

Psychometric Models of In-Classroom Observational Measures of Teaching with Applications to Value-Added Modelling. Amount: $199,917. Role: PI.

Educational Testing Services   *May 2014 - Dec 2014*

IRT in the Style of Collaborative Filtering. Amount: $8,369. Role: PI.

Measures of Teaching Effectiveness Early Career Grant Program (NAEd)   *Feb 2013 - Feb 2014*

Teaching Practices to Accommodate Individual Differences in Middle School English Language Arts. Amount: $25,000. Role: PI (Co-PI Kieffer, NYU Steinhardt).

HONOURS, AWARDS, AND FELLOWSHIPS

National Academy of Education / Spencer Postdoctoral Fellowship	*Sept 2015*
Natural Science and Engineering Research Council of Canada Postdoctoral Fellowship	*April 2010*
Simon Fraser University Lorne M. Kendall Memorial Scholarship	*April 2010*
American Psychological Association, Div 24 Student Paper Prize (honorable mention)	*Aug 2009*
Psychometric Society / Education Testing Service Student Travel Award	*July 2008*
Simon Fraser University Graduate Fellowship	*April 2006*
Simon Fraser University Special Entrance Scholarship	*Sept 2005*
Social Science and Humanities Research Council of Canada Doctoral Fellowship	*Sept 2005*
Social Science and Humanities Research Council of Canada Graduate Scholarship	*Sept 2004*
Province of Alberta Graduate Scholarship (monetary award declined)	*Sept 2004*

University of Calgary Dean's Research Excellence Award *Sept 2004*
Louise McKinney Scholarship *Sept 2001*

SEMINARS AND WORKSHOPS

UNICEF Technical Meeting on Revising the Early Childhood Development Index *Sept 14, 2016*

Preliminary Reliability and Validity Analyses of the Current ECDI.

UC Berkeley Evaluation and Assessment Research BEAR Center Seminar *April 19, 2016*

Assessing the Outcomes and Processes of Student Collaborations.

Berkeley Research Experience and Methodology Postdoctoral Training Program *April 18–20, 2016*

Workshop 1: Item Design for Assessments Involving Collaboration.
Workshop 2: Modeling the Effects of Collaboration on Student Performance.
Workshop 3: Measuring Student Engagement During Collaboration.

NYU / Global TIES for Children Summer Training Institute *June 17, 2015*

Multilevel Mediation with Structural Equation Modeling.

World Bank (SIEF) Educational Outcomes Measurement Workshop *May 12-13, 2015*

Assessing Child Outcomes: EGRA, Impact Evaluations, and Factor Scoring.
Scoring Teacher Observations Using Multilevel Latent Class Analysis.

Columbia University Statistics Student Seminar *April 1, 2015*

Scoring Teacher Observations Using Multilevel Latent Class Analysis.

Educational Testing Service Innovative Assessment of Collaboration Workshop *Nov 3, 2014*

Modeling Complex Assessment Data.

Teachers College Learning Analytics Seminar Series *May 30, 2014*

Statistical Models for Collaboration.

New York City Department of Education, Data Analytics Seminar *May 28, 2014*

Approaches to Analyzing Classroom Observation Data.

Ohio State University Quantitative Psychology Colloquium Series *March 24, 2014*

Statistical Models for Collaboration.

Fordham Council on Applied Psychometrics Seminar Series *Oct 30, 2013*

Modeling and Scoring Collaborative Problem Solving Tasks.

National Academy of Education Fall Meeting *Oct 25, 2013*

Teaching Practices to Accommodate Individual Differences in Middle School ELA (with Michael J. Kieffer; part of the Measures of Effective Teaching Grantee Program).

Carnegie Mellon University Department of Statistics Seminar Series *March 27, 2013*

Collaborative Problem Solving: Definitions, Psychometric Models, and Assessment (with Alina A. von Davier).

Education Testing Service Invited Speaker *Oct 26, 2012*

Time Series Analysis of Computer-Mediated Human Interaction.

SELECT CONFERENCE PRESENTATIONS

Psychometric Society

Measuring Student Engagement During Collaboration.	*2016*
Classification Consistency for Latent Class Models.	*2014*
Psychometric Models for Collaborative Problem Solving Tasks (invited symposium).	*2013*
An EM Algorithm for Hawkes Process (with R. Grasman).	*2012*
Models of Dyadic Dependence for Event Sampling Data (with P. De Boeck & R. Grasman).	*2011*
A Geometric Approach to Diagnosing Local Item Dependence (with P. De Boeck).	*2010*
Empirical Criteria for Model Selection: Linear Factor and Finite Mixture Models.	*2008*

National Council on Measurement in Education

Modeling the Effects of Collaboration on Mathematics Performance (with Y. Begner).	*2015*
Models for Scoring Individual Performance in Team Collaboration.	*2014*
Evaluating the Roles of Individual Members in Team Interactions (invited symposium).	*2013*

Society for Research on Educational Effectiveness

Latent Class Models for Teacher Observation Data.	*2016*
Measuring Critical Education Processes and Outcomes (with C. Torrente).	*Spring 2014*
Approaches for the use of EGRA and EGMA (with C. Torrente & J. L. Aber).	*Fall 2013*

TEACHING EXPERIENCE

Current

Factor Scoring and Practical Issues in Scaling
Factor Analysis and Structural Equation Modeling

Previous

Introduction to Psychometrics
Statistical Mysteries and How to Solve Them (undergraduate)
Topics in Multivariate Analyses
Statistics for the Behavioral and Social Sciences 2
Introduction to Data Analysis in Psychology (undergraduate; at Simon Fraser University)

STUDENT ADVISEMENT

Lieghann Starkey (CUNY, Ph.D. in Psychology, Dissertation Committee)
Alyssa T. G. Anderson (NYU, Ph.D. in Teaching and Learning, Dissertation Committee)
Alexander Belser (NYU, Ph.D. in Clinical Psychology, Dissertation Committee)
Jason Rarick (NYU, Ph.D. in Applied Psychology, Dissertation Committee)

SERVICE

Editorial board

American Journal of Educational Research (2016-present)

Ad Hoc Review

　　Psychometrika
　　Journal of Educational Measurement
　　Applied Psychological Measurement
　　British Journal of Mathematical and Statistical Psychology
　　Journal of Research on Educational Effectiveness
　　Journal of Computational and Graphical Statistics

Research Grant Review

　　Institute of Education Sciences (panelist: 2015-2016; principal member: 2017-present)
　　National Science Foundation (panelist: 2013; ad hoc reviewer: 2016)

School / Departmental

　　NYU PRIISM / Center for Data Science hiring committee (2015, 2016)
　　A3SR Master's Program Admissions Committee (2015-present)
　　Teacher Evaluation Working Group (2016-present)
　　Middle States Assessment Committee (2014)
　　Steinhardt Online Student Evaluation Committee (2013 - 2015)

Other

　　Psychometric Society poster selection panel (2014) and travel award selection panel (2015)
　　Society for Research on Educational Effectiveness conference program reviewer (2015, 2016)

CONTRACTED RESEARCH

Save the Children   *Sept 2015 - present*

　　Construct validity of the International Development and Early Learning Assessment (IDELA).
　　Measurement invariance of IDELA over countries.

ETS   *Sept 2015 - present*

　　NAEP Survey Assessment Innovations Laboratory Network.
　　Point process models for collaboration in the Tetralogue project.

UNICEF   *Sept 2016 - Oct 2016*

　　Validity and reliability of the Early Childhood Development Index.
　　Validity and reliability of the Child Functioning Module.

mdrc   *May 2016 - Dec 2016*

　　Construct validity of the New World of Work Self-Assessment of 21st Century Skills.

UBC Tobacco Research Unit   *April 2009 - Feb 2010*

　　School, community, and individual predictors of adolescent smoking.

British Columbia Centre for Disease Control   *April 2009 - Aug 2009*

　　Analysis for ORCHID survey.

MEDIA COVERAGE

Jacqueline Howard (Oct. 14, 2016). Students of All Races Favor Teacher Diversity, and Here's Why. *CNN*. (`Link to article.`)

Sayer Devlin (Oct. 12, 2016). Study Points to Greater Faculty Diversity. *Washington Square News*. (`Link to article.`)

Tim Walker (Oct. 8, 2016). US Schoolchildren Prefer Teachers of Colour Regardless of Their Own Race or Ethnicity, Study Finds. *The Independent*. (`Link to article.`)

Tessa Berenson (Oct. 7, 2016). Students of All Races Prefer Teachers of Color, Study Finds. *Time*.(`Link to article.`)

Elizabeth Koh (Oct. 7, 2016). Students Like Teachers of Color More Than White Teachers, Study Suggests. *McClatchy* (`Link to article.`)

Anya Kamenetz (Oct. 7, 2016). Study Finds Students Of All Races Prefer Teachers Of Color. *NPR Ed*. (`Link to article.`)

Sergio Hernandez & Huizhong Wu (Dec. 2, 2015). Stronger Gun Laws Correlate With Less Gun Violence. *Mashable*. (`Link to article.`)

Rachel Harrison (July 14, 2015). Steinhardt Researchers Awarded 1 Million to Study Educational Videos. *NYU Press Release*. (`Link to article.`)

Rachel Harrison (Feb. 14, 2015). Crowdsourcing a Valid Option for Gathering Speech Ratings. *NYU Press Release*. (`Link to article.`)