

## **Wen-Chia Claire Chang, Ph.D.**

Assistant Professor

Policy, Curriculum, and Leadership Academic Group

Nanyang Technological University/National Institute of Education

Email: [wenchia.chang@nie.edu.sg](mailto:wenchia.chang@nie.edu.sg) Phone: +65 6790 3261

### **EDUCATION**

- 2017      **Ph.D., Educational Research, Measurement, and Evaluation**  
Lynch School of Education and Human Development  
Boston College, Chestnut Hill, MA  
Dissertation: *Measuring the complexity of teachers' enactment of practice for equity: A Rasch model and facet theory-based approach*
- 2006      **M.A., Communication Studies**  
College of Communication, Information, and Media  
Ball State University, Muncie, IN
- 2004      **B.A., Philosophy**  
Fu-Jen Catholic University, College of Liberal Arts, Taipei, Taiwan

### **PROFESSIONAL APPOINTMENTS**

- 2022 – present      **Assistant Professor**  
Policy, Curriculum, and Leadership Academic Group  
Nanyang Technological University/National Institute of Education, Singapore
- 2020 – 2022      **Research Fellow**  
International Coalition for Multilingual Education and Equity  
University of Nebraska, Lincoln
- 2018 - 2020      **Post-Doctoral Fellow**  
Policy, Curriculum, and Leadership Academic Group  
Nanyang Technological University/National Institute of Education, Singapore
- 2017 – 2018      **Adjunct Faculty**  
Department of Measurement, Evaluation, Statistics, and Assessment  
Lynch School of Education and Human Development, Boston College
- 2017 – 2018      **Research Associate – Program Evaluation**  
The City Connects Program  
Lynch School of Education and Human Development, Boston College
- 2006 – 2010      **Program Officer – Program Management and Evaluation**  
Education Development Center, Inc.

## **PUBLICATIONS (Peer Reviewed)**

### **Articles in Academic Journals**

**Chang, W.-C.** (2022). Measuring the complexity of equity-centered teaching practice: Enhancement and validation of a Rasch/Guttman scenario scale. *Journal of Applied Measurement, 22*(2), 35-39.

**Chang, W.-C.,** & Cochran-Smith, M. (in press). Learning to teach for equity, social justice, and diversity: Do the measures measure up? *Journal of Teacher Education, XX, XX-XX*.

**Chang, W.-C.,** & Viesca, K. M. (2022). Preparing teachers for culturally responsive teaching: A critical review of research. *Teachers College Record, 124*(2), 1-28.

Ludlow, L. H., Baez-Cruz, M., **Chang, W.-C.,** & Reynolds, K. (2020). Rasch/Guttman Scenario (RGS) scales: A methodological framework. *Journal of Applied Measurement, 21*(4), 361-378.

**Chang, W.-C.,** Ludlow, L. H., Grudnoff, L., Ell, F., Haigh, M., Hill, M., & Cochran-Smith, M. (2019). Measuring the complexity of teaching practice for equity: Development of a scenario-format scale. *Teaching and Teacher Education, 82*, 69-85.

Cochran-Smith, M., Keefe, E. S., Carney, M. C., Burton, S., **Chang, W.-C.,** Fernández, M. B., Miller, A. F., & Sánchez, J. G. (2018). Democratic accountability in teacher education: Now more than ever. *Teacher Education and Practice, 31*(2), 178-206.

Cochran-Smith, M., Baker, M., Burton, S., **Chang, W.-C.,** Carney, M., Fernandez, M. B., Keefe, E. S., Miller, A. F., & Sanchez, J. G. (2017). The accountability era in US teacher education: Looking back, looking forward. *European Journal of Teacher Education, 1-17*.

Hill, M. F., Ell, F., Grudnoff, L., Haigh, M., Cochran-Smith, M., **Chang, W.-C.,** & Ludlow, L. H. (2016). Assessment for equity: Learning how to use evidence to scaffold learning and improve teaching. *Assessment in Education: Principles, Policy & Practice, 1-20*.

### **Books**

Cochran-Smith, M., Carney, M. C., Keefe, E. S., Burton, S., **Chang, W.-C.,** Fernández, M. B., Miller, A. F., Sánchez, J. G., & Baker, M. (2018). *Reclaiming accountability in teacher education*. Teachers College Press.

### **Book Chapters**

**Chang, W.-C.** (accepted). Teacher professionalization in Singapore: Equity-centered social justice teaching for a multicultural society. In W. O., Lee, P. Brown, A. L., Goodwin, & A., Green (Eds.), *International handbook of education development in Asia Pacific* (pp. ##-##). Springer Press.

Ludlow, L. H., Reynolds, K., Baez-Cruz, M., & **Chang, W.-C.** (2021). Enhancing the interpretation of scores through Rasch-based scenario-style items. In U. Luhanga & G. Harbaugh (Eds.), *Basic elements of survey research in education* (pp. 673-718). Information Age Publishing.

Cochran-Smith, M., Baker, M., Burton, S., Carney, M. C., **Chang, W.-C.**, Fernandez, M. B., Keefe, E. S., Miller, A. F., Sanchez, J. G., & Stern, R. (2017). Teacher quality and teacher education policy: The U.S. case and its implications. In M. Akiba & G. LeTendre (Eds.), *The Routledge international handbook of teacher quality and policy*. Routledge.

### **Professional Articles**

Cochran-Smith, M., Keefe, E. S., **Chang, W.-C.**, & Carney, M. C. (2018). NEPC Review: “2018 Teacher Prep Review.” National Education Policy Center.

Cochran-Smith, M., Keefe, E. S., **Chang, W.-C.**, & Carney, M. C. (2018). Review of “2018 State Teacher Policy Best Practices Guide.” National Education Policy Center.

Cochran-Smith, M., Baker, M., **Chang, W.-C.**, Fernandez, M. B., & Keefe, E. S. (2017). Review of “Within Our Grasp: Achieving Higher Admissions Standards in Teacher Prep”. National Education Policy Center.

Cochran-Smith, M., Stern, R., Sánchez, J. G., Miller, A. F., Keefe, E. S., Fernandez, M. B., **Chang, W.-C.**, Carney, M. C., Burton, S., & Baker, M. (2016). Holding teacher preparation accountable: A review of claims and evidence. National Education Policy Center.

### **Commentary**

Keefe, E. S., & **Chang, W.-C.** (2020). The magic wand of NCTQ: A single headline. *Teachers College Record*.

### **In Review**

**Chang, W.-C.** (under revision). Validation of the Teaching Equity Enactment Scenario Scale in Singapore: A mixed-methods convergent study (Target journal: *Quality and Quantity: International Journal of Methodology*)

### **In Preparation**

**Chang, W.-C.** (in preparation). Toward equity-centered, humanizing teaching: Voices and experiences from Singapore teachers. (Target journal: *Asia Pacific Journal of Teacher Education*).

**Chang, W.-C.** (in preparation). Developing a Rasch-Guttman Scenario scale to capture the complexity of equity-centered teaching practice: A reflective essay (Target journal: *Rasch Measurement Transaction*).

**Chang, W.-C., & Viesca, K. M.** (in preparation). Teacher reflection and agency in professional development learning.

### **HONORS AND AWARDS**

- 2021            **Georg William Rasch Early Career Award**  
American Educational Research Association/the Rasch Special Interest Group  
Chang, W. C. C., Ludlow, L. H., Grudnoff, L., Ell, F., Haigh, M., Hill, M., &  
Cochran-Smith, M. (2019). Measuring the complexity of teaching practice for  
equity: Development of a scenario-format scale. *Teaching and Teacher  
Education, 82*, 69-85.
- 2020            **AACTE Outstanding Book Award**  
American Association of Colleges for Teacher Education  
for *Reclaiming Accountability in Teacher Education\**  
(\*Authors: Cochran-Smith, M., Carney, M. C., Keefe, E. S., Burton, S., Chang,  
W.-C., Fernández, M. B., Miller, A. F., Sánchez, J. G., & Baker, M.)
- 2019            **Society of Professors of Education Outstanding Book Award**  
Society of Professors of Education  
for *Reclaiming Accountability in Teacher Education\**
- 2019            **Exemplary Research in Teaching and Teacher Education Award**  
American Educational Research Association/Division K  
for *Reclaiming Accountability in Teacher Education\**
- 2018            **Critic's Choice Book Award**  
American Educational Studies Association  
for *Reclaiming Accountability in Teacher Education\**
- 2017            **George Madaus Graduate Student Research Award**  
Measurement, Evaluation, Statistics, and Assessment Department  
Lynch School of Education and Human Development, Boston College
- 2016            **Donald J. White Teaching Excellence Award**  
Graduate School of the Morrissey College of Arts and Sciences  
Boston College

### **GRANTS AND FELLOWSHIPS**

- 2019 - 2020    **Education Research Funding Programme (ERPF) Planning Grant**  
Nanyang Technological University/National Institute of Education, Singapore  
Amount: S\$ 8,625.97 (Principal Investigator)
- 2018            **Visiting Research Fellowship**  
School of Education, University of South Australia

- 2016                    **Summer Dissertation Development Grant**  
Lynch School of Education and Human Development, Boston College  
Amount: \$2,000
- 2014 – 2017           **Boston College Conference Presentation Travel Grants**  
Lynch School of Education and Human Development, Boston College  
Amount: \$2,500+

### CONFERENCE PRESENTATIONS

#### Peer Reviewed Presentations

**Chang, W.-C.** (2022, April). Learning to teach for equity, social justice, and/or diversity: Do the measures measure up? Paper presentation at presidential session at the American Educational Research Association annual meeting, San Diego, CA.

**Chang, W.-C.** & Viesca, K. M. (2021, April). Disrupting evasion pedagogies in research: Preparing teachers for culturally responsive teaching. In K. M. Viesca (Chair), Identifying and disrupting evasion pedagogies. Symposium conducted at the American Educational Research Association virtual meeting.

Ludlow, L. H., Reynolds, K., Baez-Cruz, M., & **Chang, W.-C.** (2021, April). Rasch/Guttman-based Scenario (RGS) Scales: Development and benefits. Paper presentation at the American Educational Research Association virtual meeting.

**Chang, W.-C.**, & Cochran-Smith, M. (2020, April). Preparing teachers for multicultural, equity and social-justice teaching: A systematic review of assessment tools. Paper presentation at the American Educational Research Association annual meeting, San Francisco, CA.

Ludlow, L. H., Reynolds, K., Baez-Cruz, M., & **Chang, W.-C.** (2020, April). Developing Rasch/Guttman-based scenario (RGS) scales to enhance scale score interpretation: A methodological framework. Paper presentation at the American Educational Research Association annual meeting, San Francisco, CA.

**Chang, W.-C.**, Ludlow, L. H., Grudnoff, L., Ell, F. Hill, M., & Cochran-Smith, M. (2020, April). Capturing the complexity of enacting equity-centered teaching practice: A Rasch-based scenario-style scale. Symposium conducted at the American Educational Research Association annual meeting, San Francisco, CA.

**Chang, W.-C.** (2019, April). Measuring equity-centered teaching practice. Paper presentation at the New England Educational Research Organization, Portsmouth, NH.

**Chang, W.-C.**, & Ludlow, L. H. (2019, April). Measuring the complexity of teaching practice for equity: Results and utility of the scenario-format scale. In M. Cochran-Smith (Chair), Seeing patterns in the Kaleidoscope: Understanding learning to teach for equity. Symposium conducted at the American Educational Research Association annual meeting, Toronto, Canada.

**Chang, W.-C.** (2018, April). Measuring teachers' enactment of practice for equity: A Rasch model and facet theory-based approach. Paper presentation at the International Objective Measurement annual meeting, New York City, NY.

**Chang, W.-C.,** Carney, M. C., & Baker, M. (2017, April). Reviewing and rating teacher preparation: Examining the National Council on Teacher Quality's reform initiative. Roundtable presentation at the American Educational Research Association annual meeting, San Antonio, TX.

Burton, S., & **Chang, W.-C.** (2017, April). The Problem with accountability: Looking across the cases. In M. Cochran-Smith (Chair), *Getting accountability right in teacher education*. Symposium conducted at the annual meeting of the American Educational Research Association, San Antonio, TX.

**Chang, W.-C.,** & Ludlow, L. H. (2016, April). Teaching for equity enactment scenarios: An application of Rasch measurement principles. In M. Cochran-Smith (Chair), *Putting equity front and center in teacher education: Innovative program design and research*. Symposium conducted at the American Educational Research Association annual meeting, Washington, DC.

Baker, M., Carney, M. C., & **Chang, W.-C.** (2016, April). National Council on Teacher Quality's initiative to fix teacher education: Rank, report, repeat. In M. Cochran-Smith (Chair), *Fixing teacher preparation: Analysis and critique of major reform initiatives*. Symposium conducted at the American Educational Research Association annual meeting, Washington, DC.

Cochran-Smith, M., Baker, M., Burton, S., Carney, M. C., **Chang, W.-C.,** Fernández, M. B., Keefe, E. S., Miller, A. F., Sánchez, J. G., & Stern, R. (2016, April). Teacher educational accountability initiatives: Where's the evidence? Paper presentation at presidential session at the American Educational Research Association annual meeting, Washington, DC.

Baker, M., & **Chang, W.-C.** (2015, April). National Council on Teacher Quality (NCTQ): Ranking teacher education program providers using inputs. In M. Cochran-Smith (Chair), *Education reform and teacher education: Critiquing four initiatives*. Symposium conducted at the New England Educational Research Organization annual meeting, Portsmouth, NH.

**Chang, W.-C.** (2015, April). Preparing teachers for culturally responsive teaching: A critical review of research. Paper presentation at the American Educational Research Association annual meeting, Chicago, IL.

**Chang, W.-C.** (2014, May). Measuring dispositions toward social justice-oriented evaluation: Scale development and the initial results. Paper presentation at the New England Educational Research Organization annual meeting, Dover, VT.

### **Non-Peer Reviewed/Invited Presentations**

**Chang, W.-C.** (2022, April). Measuring the complexity of teaching practice for equity: Development of a scenario-format scale. Presentation scheduled for the American Educational Research Association Rasch SIG business meeting, San Diego, CA.

**Chang, W.-C.** (2021, October). Attending to measurement validity and validation through a cultural lens. Presentation delivered to the Nanyang Technological University/National Institute of Education, Singapore

**Chang, W.-C.** (2018, August). Capturing the complexity of teachers' enactment of practice for equity in the era of accountability. Presentation delivered to the School Research Day, Dr. Sue Nichols, School of Education, University of South Australia, Adelaide, Australia.

**Chang, W.-C.** & Burton, S. (2018, February). Reclaiming accountability in teacher education. Presentation delivered to the Philippine delegates, Dr. Dennis Shirley, Lynch School of Education, Boston College, Boston, MA.

Cochran-Smith, M., Baker, M., Burton, S., Carney, M. C., **Chang, W.-C.**, Fernández, M. B., Keefe, E. S., Miller, A. F., Sánchez, J. G., & Stern, R. (2015, October). Fixing teacher education: Current and future directions. Keynote address at the annual meeting of the Massachusetts Association of Colleges for Teacher Education, Worcester, MA.

**Chang, W.-C.** (2008, July). Achieving Sustainable Development through Public and Private Partnership (PPP). Presentation delivered at the Corporate Social Responsibility Conference, Ministry of Economic Affairs, Taipei, Taiwan

Chen, A., & **Chang, W.-C.** (2007, June). Relationship Building, Challenges, and Coping Strategies. Presentation delivered at the East Asia NGO forum, Taipei, Taiwan

### **SEMINARS AND WORKSHOPS**

Armando Luna Bazaldua, D. & **Chang, W.-C.** (2019, December). Malaysia strengthening STEM skills for the IR4.0 age. Workshop delivered to the staff of the Ministry of Education in Putrajaya, Malaysia. The World Bank Group, Malaysia.

Lin, R. C., & **Chang, W.-C.** (2019, March). Rasch measurement and FACETS software. Workshop delivered to the Curriculum, Teaching, and Learning Academic Group, Dr. Chen Der Thanq Victor, National Institute of Education, Nanyang Technological University, Singapore.

**Chang, W.-C.** (2017, November). Research internal validity. Presentation delivered to Research Methods for Policy Analysis course, Dr. Rocio Sanchez Ares, University of Massachusetts, Boston, Boston, MA.

**Chang, W.-C.** (2017, September). Measuring the complexity of teachers' enactment of practice for equity: A Rasch model and facet theory-based approach. Presentation delivered to the Doctoral Dissertation Seminar course, Dr. Larry Ludlow. Boston College, Chestnut Hill, MA.

Thainiyom, P., & **Chang, W.-C.** (2008, August; 2009, June). Effective communication & team building. Two workshops delivered to the Department of Communication Arts – Advertising, Assumption University, Bangkok, Thailand

Chen, A., **Chang, W.-C.**, & Thainiyom, P. (2007, May – 2008, December). International development and program management. Four workshops delivered to 200 NGO professionals, Taipei, Taiwan

Chen, A., **Chang, W.-C.**, & Prasse-Freeman, E. (2007, August). Leadership and team building. Workshop delivered to the ING Life Insurance Company Limited, Taipei, Taiwan

### **COURSES TAUGHT**

<b>Course Name</b>	<b>Level</b>	<b>Semester/Year</b>	<b>Institution</b>
Educational Inquiry	Graduate	January, 2019; January, 2020	Nanyang Technological University/National Institute of Education
Program and Curriculum Evaluation	Graduate	August, 2019 August, 2020	Nanyang Technological University/National Institute of Education
Interpretation and Evaluation of Research	Graduate (M.Ed. & Ph.D.)	Summer, 2017; Fall, 2017; Spring, 2018	Lynch School of Education and Human Development, Boston College
Research Methods and Analyses	Undergraduate	Fall, 2017; Spring, 2018	Lynch School of Education and Human Development, Boston College
Fundamentals of Public Speaking	Undergraduate	Fall, 2005; Spring, 2006	Department of Communication Studies, Ball State University

#### **Graduate Teaching Assistant Experience**

Intermediate Statistics (with Dr. Zhushan Mandy Li)	Graduate (M.Ed. & Ph.D.)	Spring, 2016	Lynch School of Education and Human Development, Boston College
---	--------------------------	--------------	---

Introductory Statistics (with Dr. Marji Erickson Warfield)	Graduate (M.Ed. & Ph.D.)	Fall, 2015	Lynch School of Education and Human Development, Boston College
Program Evaluation (with Dr. Lauren Saenz)	Graduate (M.Ed. & Ph.D.)	Fall, 2011; Spring, 2012; Fall, 2014	Lynch School of Education and Human Development, Boston College

### RESEARCH EXPERIENCE

- 2015 – 2017     **Graduate Research Assistant – Program Evaluation**  
The City Connects Program  
Lynch School of Education and Human Development, Boston College
- 2012 – 2015     **Graduate Research Assistant – Data Management and Analysis**  
Department of Measurement, Statistics, Evaluation, & Assessment,  
Lynch School of Education and Human Development, Boston College
- 2011 – 2012     **Graduate Research Assistant – Program Evaluation**  
Institute for Community Inclusion,  
University of Massachusetts, Boston

### SERVICE

#### Academic Community Service

- 2022     Invited reviewer, *Quality and Quantity: International Journal of Methodology*
- 2021     Invited reviewer, *Measurement and Evaluation in Counseling and Development*
- Conference proposal reviewer, American Educational Research Association,  
           Rasch measurement-SIG  
           Accreditation, Assessment, and Program Evaluation in Education Preparation SIG
- 2020     Conference proposal reviewer, American Educational Research Association,  
           Divisions K and Rasch measurement-SIG
- Doctoral dissertation committee member, Institute of Education, National Research  
           University Higher School of Economics (Moscow, Russia)
- Conference proposal reviewer, Redesigning Pedagogy International Conference  
           2020, Teacher Quality, Teacher Learning and Development Strand
- Invited Master thesis examiner, Faculty of Education, University of South Australia  
           (Adelaide, Australia)

- 2019 Book chapter reviewer, *Basic Elements of Survey Research in Education: Addressing the Problems Your Advisor Never Told You About*  
Invited reviewer, *Frontiers Psychology*
- Invited reviewer, *Multicultural Perspectives*
- Conference proposal reviewer, American Educational Research Association, Divisions K and D
- Conference proposal reviewer, New England Educational Research Organization
- 2018 Invited reviewer, *Measurement and Evaluation in Counseling and Development*
- Invited reviewer, *Pedagogies: An International Journal*
- Conference proposal reviewer, American Educational Research Association, Divisions K and D
- 2017 Conference proposal reviewer, New England Educational Research Organization
- Conference proposal reviewer, American Evaluation Association, Mixed-Methods Topical Interest Group

### **Departmental Service**

- 2019 - 2020 Committee member, M.A. Programme in Master of Arts in Leadership and Educational Change, National Institute of Education
- 2019 Committee member, M.Ed. Programme in Curriculum and Teaching, National Institute of Education
- 2015 – 2016 Doctoral student representative

### **PROFESSIONAL AFFILIATIONS**

- 2012 – Present American Educational Research Association (AERA)
- Division K, Teaching and Teacher Education
  - Rasch Measurement SIG
  - Division D, Measurement & Research Methodologies
- 2012 – Present American Evaluation Association (AEA)

## **LANGUAGE AND SKILLS**

### **Language**

English (Excellent), Mandarin Chinese (Native)

### **Software**

SPSS, R, HLM, LISREL, MPlus, WINSTEPS Rasch, FACETS, Qualtrics, ATLAS, NVivo