

Guan K. Saw
School of Educational Studies
Claremont Graduate University
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EDUCATION

- 2016 **Ph.D., Measurement and Quantitative Methods**, Michigan State University
- 2008 **M.Ed., Sociology of Education**, National Taiwan Normal University
- 2000 **B.Eng., Civil Engineering**, University of Technology Malaysia

ACADEMIC APPOINTMENTS

- 2020- **Associate Professor**, School of Educational Studies, Claremont Graduate University
- 2016-2020 **Assistant Professor**, Department of Educational Psychology, The University of Texas at San Antonio
- 2003-2006 **Director**, Department of Student Affairs, United Chinese School Committees Association of Malaysia
- 2000-2003 **Vice Principal/Director of Academic Department/Mathematics Teacher**, Chung Hwa High School, Kelantan, Malaysia

ACADEMIC HONORS/AWARDS/FELLOWSHIPS

- 2020 Outstanding Professor Award, The University of Texas at San Antonio
- 2019 Faculty Fellowship, Annie E. Casey Foundation
- 2018-2020 AERA Research Fellowship, American Educational Research Association with the support of National Science Foundation
- 2016-2017 Texas OnCourse Research Fellowship, The University of Texas at Austin
- 2015-2016 AERA Dissertation Fellowship, American Educational Research Association with the support of National Science Foundation

2015-2016	Postsecondary Research Fellowship, Population Research Center at The University of Texas at Austin
2015	Dissertation Completion Fellowship, Michigan State University
2013-2015	Robert L. Ebel Endowed Scholarship, Michigan State University
2013-2014	Clifford E. Erickson Memorial Scholarship, Michigan State University
2010-2015	Graduate Fellowship, Michigan State University
2008-2010	Graduate Scholarship, Democratic Pacific Union, Taiwan
2007	Scholarship for Foreign Students, Ministry of Education, Taiwan
2007	Outstanding Graduate Student Award, National Taiwan Normal University
1997-1999	National Undergraduate Scholarship, Texchem Malaysia
1995-1999	Dean's List, University of Technology Malaysia

RESEARCH GRANTS (Funded; Principal Investigator [PI], otherwise stated)

Extramural (Total awarded as PI: \$539,317; Total awarded as co-PI: \$634,566)

2021-2023	“Violence against teachers in the 50 largest U.S. school districts: Predictors, consequences, and school responses” National Institute of Justice (\$579,041; 2020-CK-BX-0004; Role: co-PI; PIs: Byongook Moon, John McCluskey)
2020-2021	“RAPID: Collaborative Research: Electronic mentoring to address challenges in engineering graduate programs during the COVID-19 pandemic” National Science Foundation (\$109,317; DGE-2051263) PI: Chi-Ning Chang (University of Kansas; \$44,583; DGE-2031069)
2019-2021	“BCSER: Developing and validating STEM social capital scales” National Science Foundation (\$350,000; DRL-2113395)
2019	“Evaluating the impact of Prefreshman Engineering Program (PREP): A results-based accountability (RBA) study” Annie E. Casey Foundation (\$10,000)
2018-2020	“How STEM learning opportunities in- and out-of-school affect STEM academic/motivational orientations and college outcomes?” American Educational Research Association, in conjunction with National Science Foundation (\$35,000)

- 2018 “Evaluating the impact of cafécollege scholarship on high school and postsecondary outcomes” San Antonio Education Partnership and The City of San Antonio (\$55,525; Role: co-PI; PI: Michael Villarreal)
- 2017 “The impact of inclusive STEM high schools” The Texas OnCourse project, a partnership among the University of Texas at Austin, the Texas Education Research Center, the Texas Education Agency, the Texas Higher Education Coordinating Board, and the Texas Workforce Commission (\$10,000)
- 2015-2016 “The causal impact of high school mathematics and science course graduation requirements,” American Educational Research Association, in conjunction with National Science Foundation (\$20,000)
- 2015 “The causal effect of postsecondary remediation on college attainment,” Population Research Center at The University of Texas at Austin, with support from Eunice Kennedy Shriver National Institute of Child Health and Human Development (\$5,000)
- Intramural** (Total awarded as PI: \$69,250)
- 2021-2022 “Identifying inclusive mentoring practices for underrepresented racial/ethnic minority adolescents in STEM” Claremont Graduate University (\$6,250)
- 2019-2020 “Challenges and e-mentoring in postsecondary STEM programs during the COVID-19 outbreak” The University of Texas at San Antonio (\$5,000)
- 2019 “Enhancing adolescents’ career interests in STEM through informational interventions: A survey experiment” The University of Texas at San Antonio (\$5,000)
- 2018-2019 “Prefreshman Engineering Program (PREP) and student STEM academic and motivational factors” The University of Texas at San Antonio (\$20,000)
- 2017-2018 “Cognitive and motivational factors contributing to STEM career aspirations among high school students with and without disabilities” The University of Texas at San Antonio (\$5,000)
- 2016-2017 “The impact of inclusive STEM high schools” The University of Texas at San Antonio (\$5,000)
- 2015 “The causal impact of college readiness interventions,” Michigan State University Dissertation Completion Fellowship (\$6,000)
- 2012-2013 “High school context effects on student STEM outcomes,” Michigan State University Summer Research Renewable Fellowship (\$12,000)

2011 “Quasi-experimental designs in educational evaluation,” Michigan State University Summer Research Fellowship (\$5,000)

REFEREED PUBLICATIONS

Books

Schneider, B. (Ed.), **Saw, G. K.** (Associate Ed.) (2018). *Handbook of the sociology of education in the 21st century*. Springer International Publishing AG.

Journal Articles (†student author)

Saw, G. K., & Agger, C. A. (2021). STEM pathways of rural and small-town students: Opportunities to learn, aspirations, preparation, and college enrollment. *Educational Researcher*, 50(9), 595-606.

Saw, G. K. (2020). Leveraging social capital to broaden participation in STEM. *Policy Insights from Behavioral and Brain Sciences*, 7(1), 35-43.

Moon, B., **Saw, G. K.**, & McCluskey, J. (2020). Teacher victimization and turnover: Focusing on different types and multiple victimization. *Journal of School Violence*, 19(3), 406-420.

Saw, G. K. (2019). The impact of inclusive STEM high schools on student outcomes: A statewide longitudinal evaluation of Texas STEM academies. *International Journal of Science and Mathematics Education*, 17(8), 1445-1457.

Covay Minor, E., **Saw, G. K.**, Frank, K. A., Schneider, B. L., & Obenauf, K. (2019). External contextual factors and teacher turnover: The case of Michigan high schools. *Teachers College Record*, 121(11), 1-30.

Saw, G. K., †Swagerty, B., †Brewington, S., †Chang, C.-N., & Culbertson, R. (2019). Out-of-school time STEM program: Students' attitudes toward and career interests in mathematics and science. *International Journal of Evaluation and Research in Education*, 8(2), 356-362.

García, M., & **Saw, G. K.** (2019). Socioeconomic disparities associated with awareness, access, and usage of Pre-Exposure Prophylaxis among Latino MSM ages 21-30 in San Antonio, TX. *Journal of HIV/AIDS & Social Services*, 18(2), 206-211.

*** *Abstract of Distinction at the 2018 Society for Prevention Research conference*

Saw, G. K. (2019). Remedial enrollment during first year of college, institutional transfer, and degree attainment. *Journal of Higher Education*, 90(2), 298-321.

Saw, G. K., †Chang, C.-N., & Chan, H.-Y. (2018). Cross-sectional and longitudinal disparities in STEM career aspirations at the intersection of gender, race/ethnicity, and socioeconomic status. *Educational Researcher*, 47(8), 525-532.

- Saw, G. K., & †Chang, C.-N.** (2018). Cross-lagged models of mathematics achievement and motivational factors among Hispanic and non-Hispanic high school students. *Hispanic Journal of Behavioral Sciences, 40*(2), 240-256.
- Saw, G. K., Schneider, B. L., Frank, K. A., Chen, I. C., Keesler, V., & Martineau, J.** (2017). The impact of being labeled as a persistently lowest achieving school: Regression discontinuity evidence on school labeling. *American Journal of Education, 123*(4), 585-613.
- Schneider, B. L., & **Saw, G. K.** (2016). Racial and ethnic gaps in postsecondary aspirations and enrollment. *Russell Sage Foundation Journal of the Social Sciences, 2*(5), 58-82.
- Saw, G. K.** (2016). Patterns and trends in achievement gaps in Malaysian secondary schools (1999-2011): Gender, ethnicity, and socioeconomic status. *Educational Research for Policy and Practice, 15*(1), 41-54.
- Schneider, B. L., **Saw, G. K.**, & Broda, M. K. (2016). A future for the national education longitudinal program. *AERA Open, 2*(2), DOI: 10.1177/2332858416634686.
- Saw, G. K., & Schneider, B. L.** (2015). Challenges and opportunities for estimating effects with large-scale education data sets. *Contemporary Educational Research Quarterly, 23*(4), 93-119.
- Wu, M. L., Richards, K., & **Saw, G. K.** (2014). Examining a massively multiplayer online role-playing game as a digital game-based learning platform: Mixed method case study on motivations for communicative language use. *Computers in the Schools, 31*(1-2), 65-83.
- Saw, G. K., & Schneider, B. L.** (2012). Tracing entrepreneurship orientation in adolescence to business ownership. *International Journal of Developmental Science, 6*, 151-165.

Conference Proceedings

- Chang, C. N., **Saw, G. K.**, Lomeli-Carrillo, U., Romano, K., Zhi, M., & Culbertson, R. (2021). *Electronic mentoring during the COVID-19 pandemic: Effects on engineering graduate students' academic, career, and mental health outcomes*. Proceedings of the 2021 American Society for Engineering Education (ASEE) Virtual Annual Conference. <https://peer.asee.org/37018>

Book Chapters

- Saw, G. K.**, Romano, K., Culbertson, R., Lynton, V., & Mabrie, P. (in press). Social and learning experiences of underrepresented students in STEM summer programs: A culturally responsive case study. In J. McClinton, A. E. Hernandez, & A. L. Thornton (Ed.), *Qualitative research for diverse and underserved communities*. Information Age Publishing, Inc.
- Saw, G. K.** (2015). Family and school factors relating to academic achievement gaps in Malaysian middle schools. In S. H. Ngu (Ed.), *Chinese education in Malaysia*:

Challenges and reforms (pp. 241-263). Merdeka University Berhad, LLG Cultural Development Centre, and Centre for Malaysian Chinese Studies. (in Chinese)

Schneider, B. L., **Saw, G. K.**, & Broda, M. K. (2015). Work and work migration within and across countries in emerging and young adulthood. In L. A. Jensen (Ed.), *The Oxford handbook of human development and culture: An interdisciplinary perspective* (pp. 554-569). Oxford University Press.

Book Reviews

Frank, K. A., **Saw, G. K.**, & Xu, R. (2016). Book review of “Causality in a Social World” by Guanglei Hong. *Observational Studies*, 2, 86-89.

Technical/Data Reports

Romano, K., **Saw, G. K.**, & Culbertson, R. (2021). *Enhancing adolescents’ human and social capital in STEM: Evidence from the Prefreshman Engineering Program (PREP)*. University of Texas at San Antonio.

Saw, G. K., Romano, K., & Culbertson, R. (2020). *Increased STEM inclusion and career interest among racial/ethnic minorities and low-income students in the Prefreshman Engineering Program (PREP)*. University of Texas at San Antonio.

Chang, C.-N., **Saw, G. K.**, Lomelí, U., & Zhi, M. (2020). *Electronic mentoring during the COVID-19 pandemic: A national survey of STEM faculty and students* (NREED Data Brief. No 3). Network for Research and Evaluation in Education.

Saw, G. K., Chang, C.-N., Lomelí, U., & Zhi, M. (2020). *Gender Disparities in Remote Learning during the COVID-19 Pandemic: A National Survey of STEM Faculty and Students* (NREED Data Brief. No 2). Network for Research and Evaluation in Education.

Saw, G. K., Chang, C.-N., Lomelí, U., & Zhi, M. (2020). *Fall enrollment and delayed graduation among STEM students during the COVID-19 pandemic* (NREED Data Brief. No 1). Network for Research and Evaluation in Education.

ACADEMIC PRESENTATIONS

2020-2021

- American Society for Engineering Education annual conference & exposition (virtual).
- National Association for Research in Science Teaching annual international conference (virtual).
- American Educational Research Association annual meeting (virtual).

2019-2020

- American Psychological Association convention, Washington, DC.

- American Educational Research Association conference, San Francisco, CA.
- College and University Faculty Assembly of the National Council for the Social Studies annual conference, Austin, TX.
- Texas Evaluation Network Institute, San Antonio, TX.

2018-2019

- American Educational Research Association conference, Toronto, Canada.
- University Council for Educational Administration annual convention, Houston, TX.

2017-2018

- International AIDS conference, Amsterdam, The Netherlands.
- Society for Prevention Research conference, Washington, DC.
- American Educational Research Association conference, New York, NY.
- Texas Higher Education Symposium, Austin, TX.

2016-2017

- American Educational Research Association conference, San Antonio, TX.
- Society for Research on Educational Effectiveness conference, Washington, DC.
- American Educational Research Association research conference, Washington, DC.
- The 50th Anniversary of the Coleman Report conference, Baltimore, MD.

2015-2016

- American Educational Research Association conference, Washington, DC.
- NLSY97 Postsecondary Research Network conference, Austin, TX.
- The Coleman Report and Educational Inequality Fifty Years Later conference, New York, NY.
- Midwest Sociology of Education conference, Iowa City, IA.

2014-2015

- American Educational Research Association conference, Chicago, IL.
- Association for Education Finance and Policy conference, Washington, DC.
- Midwest Sociology of Education conference, South Bend, IN.
- Collaboration Among Education Policy Students, East Lansing, MI.
- International Congress of Applied Psychology, Paris, France.
- Malaysia Chinese Education Conference, Ipoh, Malaysia.

2013-2014

- American Sociological Association conference, San Francisco, CA.
- American Educational Research Association conference, Philadelphia, PA.
- Midwest Sociology of Education conference, Madison, WI.
- Michigan Educational Research Association conference, Bath, Michigan.

2012-2013

- Gerald R. Ford School of Public Policy, University of Michigan, Ann Arbor, MI.
- American Educational Research Association conference, San Francisco, CA.

- American Sociological Association conference, New York, NY.

2011-2012

- Society for Research on Educational Effectiveness conference, Washington, DC.
- Association for Education Finance and Policy conference, Boston, MA.
- American Educational Research Association conference, Vancouver, BC.
- American Sociological Association conference, Denver, CO.
- Measurement and Quantitative Methods seminar, East Lansing, MI.

2010-2011

- American Educational Research Association conference, New Orleans, LA.
- American Sociological Association conference, Las Vegas, NV.

INVITED PRESENTATIONS/TALKS/COMMENTARIES

- “Developing and Validating a Scale of STEM Social Capital: A Mixed-Methods Approach” at the Kaohsiung Medical University (December, 2021)
- “Research-Practice Partnerships for Cultural Responsive Evaluation” at the National Taiwan Normal University (November, 2021)
- “What is Mentorship?” at the Faculty Studio Session, THRIVE Graduate Scholars of Color Committee, Claremont Graduate University
- “Commentary: The Science of Effective Mentoring in STEMM – A Report from the National Academies of Science, Engineering and Medicine” at the 2021 American Educational Research Association (AERA) Annual Meeting (April, 2021)
- “How to Prepare an Education Conference Proposal?” at the Claremont Graduate University School of Educational Studies (March, 2021)
- “Social Mobility and Educational Inequality” at the Claremont Graduate University Office of Student Engagement (February, 2021)
- “Electronic Mentoring among Engineering Graduate Students During the COVID-19 Pandemic” at the Columbia University’s Northeast Big Data Innovation Hub COVID Research Webinar (December, 2020)
- “Adolescents’ Experiences and Sources of STEM Social Capital: A Phenomenographic Study” at the 2020 National Science Foundation (NSF) EHR Core Research Principal Investigators Meeting (November, 2020)
- “How e-Mentoring Affects Engineering Graduate Students’ Academic, Career, and Mental Health Outcomes” at the American Society for Engineering Education (ASEE)

Webinar on “Supporting Underrepresented Engineering Students in the of COVID-19”
(November, 2020)

- “COVID-19 Pandemic Challenges and Impacts on STEM Faculty and Students: Findings from a National Survey” at the Institute for Operations Research and the Management Sciences (INFORMS) Minority Issues Forum (MIF) COVID-19 Town Hall (June, 2020)

TEACHING

Graduate Courses

Instructor at Claremont Graduate University

- EDUC 479 Quantitative Research Methods Level II (Spring 2022)
- EDUC 485B Research Practicum, Part B (Spring 2022)
- EDUC 648 Promising Theories and Practices in Reducing Educational Inequalities (Fall 2021)
- EDUC 478 Quantitative Research Methods Level I (Fall 2021)
- EDUC 485A Research Practicum, Part A (Fall 2021)
- EDUC 647 Inequalities in PK-12 Education (Spring 2021)
- EDUC 580UL Capstone for Doctoral Research (Spring 2021)
- EDUC 435 Sociology of Education (Fall 2020)
- EDUC 580A Proseminar for Doctoral Study (Fall 2020)

Instructor at The University of Texas at San Antonio

- EDP 6333 Practicum in Program Evaluation (Fall 2019, Summer 2020)
- EDP 6313 Program Evaluation II (Spring 2019; Spring 2020)
- EDP 6303 Program Evaluation I (Fall 2018; Fall 2019)
- EDP 6973 Advanced Multivariate Statistics (Spring 2018)
- EDU 7063 Inferential Statistics: Multivariate Analysis (Spring 2017)
- HSA 6123 Program Planning and Evaluation in Higher Education (Fall 2017; Fall 2016)

Teaching Assistant at Michigan State University

- CEP 991 Causal Inference in the Social Sciences (Spring 2015)
- CEP 935 Hierarchical Linear Modeling (Fall 2014)

Workshops

Instructor

- “Multilevel Structural Equation Modeling” (Co-instructor: Chi-Ning, Chang)
 - Texas Evaluation Network, August 2019
- “Structural Equation Modeling”
 - The University of Texas at San Antonio, March 2019
- “Regression Discontinuity Designs”
 - Texas Evaluation Network, November 2018
- “New Trends in Program Evaluation: Estimating Effects with Large-Scale Data Sets”
 - National Taiwan Normal University, June 2017
- “Data Analysis and Regression Modeling”
 - United Chinese School Committees Association of Malaysia, June 2017
 - Confucian High School, Malaysia, September 2016

Teaching Assistant

“Sensitivity Analysis: Quantifying the Discourse about Causal Inference”

- The University of Texas at San Antonio, February 2020
- Rice University, December 2016
- AERA Professional Development Course, May 2020, April 2018, April 2014

Supervision of Graduate Student Research

Doctoral Dissertation Chair & Academic Advisor, Claremont Graduate University

Jamilla Jamison (PhD student, 2021-); Heather Jeffe (PhD student, 2021-); Shine Kim (2021-)

Academic Advisor, Claremont Graduate University

Guillermo Lopez (PhD student, 2020-); Kieu Nguyen (PhD student, 2020-2021); Sheila Nguyen (PhD student, 2020-); David Salas (PhD student, 2020-); Katherine Koupai (PhD student, 2021-); Kris Benefield (PhD student, 2021-); Adelaide Leung (PhD student, 2021-); Gabriela Perez-Swanson (PhD student, 2021-); Amber Riehman (PhD student, 2021-); Robert Smith (PhD student, 2021-); Fatima Jaffer (PhD student, 2021-), Joseph Cazares (PhD student, 2021-), Jeanny Marroquin (MA student)

Doctoral Dissertation Committee, The University of Texas at San Antonio

Erin McKinney (2018; Department of Educational Leadership and Policy Studies)

Bryan Duarte (2019; Department of Educational Leadership and Policy Studies)

Master’s Thesis Committee, The University of Texas at San Antonio

Shon Brewington (2020; Department of Educational Psychology)

PROFESSIONAL SERVICES

Journal Editorial Board

MICSS Journal of Educational Research (2021-2024)

Ad Hoc Journal Reviewer

Educational Researcher (ER)

American Educational Research Journal (AERJ)

Educational Evaluation and Policy Analysis (EEPA)

Journal of Research on Educational Effectiveness (JREE)

Teachers College Record (TCR)

Sociology of Education (SOE)

American Sociological Review (ASR)

Research in Education (RIE)

Journal of Policy Analysis and Management (JPAM)

Child Development Perspectives (CDP)

Journal of Latinos and Education (JLE)

Journal of Engineering Education (JEE)

International Journal of Science and Mathematics Education (IJSME)

Journal of STEM Education Research (JSER)

International Journal of Educational Development (IJED)

Journal of International Students (JIS)

Conference Paper Reviewer

American Educational Research Association conference (AERA)
National Council on Measurement in Education conference (NCME)
National Association for Research in Science Teaching (NARST)

International and National Service

Grant Proposal Reviewer, American Educational Research Association (2021)
Grant Proposal Reviewer, National Science Foundation ECR Program (2019, 2020)
Member-at-Large, American Evaluation Association STEM Education and Workforce
Training Topical Interest Group (2020)
Reviewer, World Education Research Association (WERA) Yearbook (2019)
Grant Proposal Reviewer, National Science Foundation HBCU-UP Program (2019)
Grant Proposal Reviewer, Ministry of Education, Singapore (2018)

State and Community Service

Committee on the 2019 Texas Evaluation Network Institute, Texas Evaluation Network

University Service

EVAL 320 Quantitative Analysis & Statistics for Evaluation & Applied Research Syllabus
Review Committee, Claremont Graduate University, 2021
Grant Proposal Reviewer, Internal Research Awards, The University of Texas at San Antonio
(2020)
Faculty Grievance Committee, The University of Texas at San Antonio (2019-2020)
Grant Proposal Reviewer, Grants for Research Advancement and Transformation. The
University of Texas at San Antonio (2019)
Founder and Co-Organizer, Policy and Research in Education Seminar Series, Center for
Research and Policy in Education, The University of Texas at San Antonio (2017-2018)

College/School/Department Service

Admission Committee, School of Educational Studies, Claremont Graduate University (2020-)
Educational Psychology Faculty Search Committee, Department of Educational Psychology,
The University of Texas at San Antonio (2019)
Data Analyst Search Committee, Urban Education Institute and College of Education and
Human Development, The University of Texas at San Antonio (2019)
Research and Development Committee, College of Education and Human Development,
The University of Texas at San Antonio (2017-2020)
Principal Project Officer, The National Center for Education Statistics restricted-use data room,
The University of Texas at San Antonio (2017-2020)
University Life Awards Committee, College of Education and Human Development, The
University of Texas at San Antonio (2017-2019)
Co-Coordinator, Program Evaluation Program, Department of Educational Psychology,
The University of Texas at San Antonio (2016-2020)
Educational Measurement Faculty Search Committee, Department of Counseling, Educational
Psychology, and Special Education, Michigan State University (2015)