YALE QUAN

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EDUCATION

Exp. Jun 2026	**Ph.D., Measurement Statistics**, University of Washington, WA *Advisor: Chun Wang*
Dec 2020	**M.S. Applied Statistics**, California State University Long Beach, Long Beach CA *Advisor: Sung Kim* *Thesis Title: A Multivariate Statistical Analysis of Major Change Patterns and Significant Factors That Influence Graduation Rates: A Case Study at California State University, Long Beach*
May 2013	**B.S., Criminal Justice**, California State University Long Beach, Long Beach CA

INTERESTS

My research passion lies at the intersection between Applied Statistics, and Education and is focused on issues of education inequality that exist in higher education. My two main Statistical methodological research interest are the development and interpretation of multidimensional nonlinear latent variable models and the refinement and development of statistical models used to perform nonlinear multidimensional clustering. My Educational research interest centers on identifying educational opportunity gaps using Mixed Method approaches by combining Qualitative and Quantitative methodologies to evaluate programs and policies in education.

In addition to my methodological interests, I am passionate about educational and behavioral science research that promotes equity and social good. When I'm not working, I enjoy spending time with my family and friends exploring the outdoors.

AWARDS/HONORS

2020	**Department of Mathematics and Statistics Graduate Student Honors Award**, California State University Long Beach
2019	**Kenneth E. Lindgren Teaching Scholarship**, California State University Long Beach

TEACHING EXPERIENCE

Aug 2021 – Present *Teaching Assistant*	**University of Washington. Seattle, WA** • EDPSY 490 – **Basic Educational Statistics** • PSYCH 209 - **Fundamentals of Psychological Research**
Dec 2020 *Lecturer*	**California State University, Long Beach. Long Beach, CA** • STAT 108* - **Statistics for Everyday Life**
Aug 2018 – Dec 2020 *Teaching Associate*	**California State University, Long Beach. Long Beach, CA** • STAT 108 - **Statistics for Everyday Life** • MATH 112B - **Essential Algebra B** • MATH 104/94* - **The Power of Mathematics**

* Instructor of Record

TEACHING EXPERIENCE CONT.

Aug 2017 – Aug 2018 **California State University, Long Beach. Long Beach, CA**

Supplemental Instructor

- MATH 115/SI 60* - Business Calculus
- MATH 122/SI 60* - Calculus I

* Instructor of Record

PRESENTATIONS AND PUBLICATONS

Quan, Y.B. (2021, November). *Clustering Education Data Using K-Medoids with Partitioning Around the Medoids Algorithm* [Seminar Presentation]. Measurement & Statistics Seminar, University of Washington. Seattle, WA, United States.

Quan, Y. B. (2020, November). *A Multivariate Statistical Analysis of Major Change Patterns and Significant Factors That Influence Graduation Rates: A Case Study at California State University, Long Beach* [Paper presentation]. Beyond the First Year. Long Beach, CA, United States.

Quan, Y. B. (2020). *A Multivariate Statistical Analysis of Major Change Patterns and Significant Factors That Influence Graduation Rates: A Case Study at California State University, Long Beach* (Publication No. 28155286) [Master's thesis, California State University Long Beach]. ProQuest Dissertations and Theses Global.

PROJECTS

Britt, S., Cho, E., Nguyen, J., **Quan, Y. B.**, & Xu, L. *(exp 2022). Request for Proposals: An Evaluation of ESSHB 1546*

A proposed evaluation of ESSHB 1546 (commonly known as Running Start) was drafted to respond for a Request for Proposals from The WT Grant Foundation. Our proposal suggests using a mixed methods evaluation consisting of qualitative and quantitative methods to evaluate how Running Start addresses the existing higher education opportunity gap and to suggest further ways to support historically marginalized students in Washington.

Quan, Y. B. (*exp 2022*). *Teacher Retention in Washington; An Event History Analysis*

An analysis of teacher retention from 2017-2020 in Washington using data publicly available from the Washington State Office of Superintendent of Public Instruction (OSPI). The OSPI S275 datasets for each year were merged with other publicly available OSPI datasets to create a comprehensive public dataset of Washington teachers. Methodology primarily consisted of non-parametric modeling techniques including Life Tables, and the use of time-varying covariates in a Cox regression model.

Quan, Y. B. (2021). *An Item Response Theory Analysis of Biology Freshman Survey*

A psychometric analysis of a survey administered to incoming freshman at California State University, Long Beach who were admitted into the Biological Sciences major. The goal of the analysis was to determine if there is any significant difference between the latent trait estimates of students who were admitted as Biological Sciences Majors to CSULB in 2020 as compared to students admitted in 2021, in latent trait estimates between male and female students, and if there are any significant correlations between latent trait estimates.

PROJECTS CONT.

Quan, Y.B. (2021). *Predicting Growth Mindset*

This project contributes to the literature on fostering growth mindset in students by using the 2018 PISA and focusing on the association between student's perception of their school and teachers and growth mindset in the context of students in grades eight through twelve in the United States. Due to the hierarchical structure of the data (students within schools) survey data, a Multilevel Logistic Model was fit to the data.

Quan, Y. B. (2020). *Master's Thesis*

Applied a combination of χ^2 hypothesis testing and correlation analysis to determine if students who changed majors graduate at a significantly different rate than students who did not. A multinomial logistic model was developed to identify significant factors that influence a student's graduation. Fishers' Multi-population Linear Discriminate was implemented to develop a classification system which can be used to classify and predict a student's time to graduation.

Quan, Y. B. (2020). *Detecting and Classifying Suspicious Yelp Reviews*

Analysis of the Yelp Dataset written reviews and star ratings using Python to perform VADER Sentiment Analysis with Natural Language Processing (NLP), and implement Decision Trees/Random Forests. The goal was to identify suspicious Yelp reviews by calculating the sentiment of a review and comparing it to the star rating.

MEMBERSHIPS

2022 – Present	**National Council on Measurement in Education (NCME)**
2022 – Present	**American Educational Research Association (AERA), Division D**
2019 – Present	**Phi Kappa Phi Honor Society**

TRAININGS ATTENDED

2020 **National Center for Education Statistics**

- Process Data Summer Training Series