

Contact

www.linkedin.com/in/nathanthompsonasc (LinkedIn)
www.assess.com (Company)
www.fasttestweb.com (Company)

Top Skills

Statistics
Psychometrics
Data Analysis

Languages

Latin (Limited Working)
English (Native or Bilingual)

Certifications

Certified Social Media Strategist

Publications

Issues Affecting Item Response Theory Fit in Language Assessment: A Study of Differential Item Functioning in the Iranian National University Entrance Exam

External Validation of Scoring Instruments for Evaluating Paediatric Resuscitation

Stochastic Curtailment in Adaptive Mastery Testing: Improving the Efficiency of Confidence-Interval-Based Stopping Rules

A Framework for the Development of Computerized Adaptive Tests

Termination criteria in computerized classification testing

Nathan Thompson, PhD

CEO & Co-Founder at Assessment Systems
Stillwater

Summary

I am passionate about improving assessment & psychometrics with AI, automation, and machine learning, and how better assessment can be used to improve aspects of our society from Education to Medicine to Professional Certification to Pre-Employment Testing. I wish to elevate the profession by automating the many mundane tasks done by psychometricians and test developers, allowing us to focus on solving important measurement problems. We are in a modern industrial revolution that will replace much of the white-collar work in the world. This will certainly impact the assessment industry. I want to be at the front of it.

Tests are used to make decisions about people every day. Bad tests make bad decisions. I provide software tools and training to practitioners that help better tests be made. In the past two decades, I've directly worked with over 100 assessment organizations, and my software has been utilized by hundreds more.

My background is as a PhD psychometrician with a focus on item response theory (IRT) and computerized adaptive testing (CAT), and since both remain vastly underutilized, a specific goal is to provide software, training, and other materials to allow IRT/CAT to become more widespread.

I currently serve as CEO for ASC (www.assess.com), the world leader in software for quality psychometrics. My primary work involves day to day management of the company, including the management of two online assessment platforms and their clients. I drive strategic direction of the company by identifying avenues for growth and expansion, hiring and managing top talent, business development, content marketing, cultivating professional networks, and identifying opportunities for new software. I've also developed a number of psychometric software programs myself, including: Xcalibre 4 for item response theory; Iteman 4 for classical test

theory; TestAssembler for automated test assembly; SIFT for psychometric forensics; and half a dozen free tools.

Experience

Assessment Systems

14 years 2 months

Chief Executive Officer

May 2020 - Present (2 years 1 month)

St Paul, Minnesota, United States

CPO and Vice President

April 2008 - May 2020 (12 years 2 months)

Minneapolis, MN

I provide strategic vision and tactical leadership in the evolution of ASC from a distributor of obsolete PC software to a provider of powerful cloud-based testing services, psychometric consulting, and automation of psychometrics & test development. Our landmark platform, FastTest, was converted from installable PC software to a cloud-based ecosystem for item banking, examinee registration, test delivery, essay marking, psychometric analysis, reporting, and certification program management.

My focus is on how we can bring quality measurement to more organizations, either through software that automates the work, makes it easier to implement sophisticated psychometrics like item response theory, or directly consulting with organizations to ensure that they align with best practices. Millions of decisions are made every day by using the results of assessments, and way too many of those are of lower quality than they could be.

Previously, I served in roles where my time was spent primarily on psychometric consulting, business development, day to day operations, and managing a Client Services team. However, my love is the software and all the opportunities it provides to improve the application of psychometrics.

University of Cincinnati

Adjunct faculty

May 2009 - May 2012 (3 years 1 month)

Taught an online class on measurement and assessment as part of a Master's in Medical Education program. The program was focused on increasing the quality of medical education by training physicians and other medical

experts on the theory and practice of Education. My class focused on how to improve assessments, including OSCEs, by implementing the fundamentals of psychometrics.

Thomson Prometric

Psychometrician

2006 - 2008 (2 years)

I provided psychometric expertise for a number of clients, mostly professional associations and state-based licensure exams. Tasks included classical test theory analysis, item response theory analysis, equating, automated test assembly for parallel forms, and standard setting. I also participated in the development of several custom software tools, including a VBA program in Excel to score complex innovative items.

University of Minnesota

Instructor

September 2000 - May 2006 (5 years 9 months)

I had the privilege to serve as an Instructor for the Department of Psychology while in graduate school, for the courses Psy 3005W (statistics, research methods, and writing skills) and Psy 4801 (advanced statistics). As an instructor rather than teaching assistant, I have complete freedom to establish by own syllabus, select a textbook, design assessments, and grade. Given the underloved topics, my focus was to ensure that students completed the course with an appreciation for the role that statistics plays in psychology and research, while making it as palatable as possible! I hope to have a chance to teach courses like this again someday.

Joint Commission on Allied Health Personnel in Ophthalmology

Test Development Manager

2005 - 2006 (1 year)

Managed the development and maintenance of three NCCA-accredited certification exams, including item writing (over 1000), item banking, item review and editing, job analysis and test blueprint studies, Angoff studies, and committee calls. Also developed study guides and annual salary survey reports.

Data Recognition Corporation

Test Scorer and Item Writer

June 2001 - January 2005 (3 years 8 months)

Maple Grove, MN

During graduate school, I would often join teams at DRC for scoring open-ended K12 assessment responses (typically essays or math problems) on a standardized, reliable rubric. I was consistently a leader in both volume and inter-rater agreement. I also contributed to item writing teams, developing open-ended mathematics items for state K12 assessments.

Education

University of Minnesota-Twin Cities

Ph.D., Psychometrics · (2000 - 2007)

Luther College

BA, Mathematics, Psychology, and Latin · (1996 - 2000)