Benjamin K. Lugu

Tel.:	205 887 9614
The University of Alabama	Email:	bklugu@crimson.ua.edu
College of Education	Personal Website	https://benjaminlugu.com/
Department of Educational Studies in Psychology,		
Research Methodology, and Counseling	Google Scholar	https://tinyurl.com/mryfne8v

EDUCATION

The University of Alabama   August 2021 – August 2025
PhD in Educational Research
Advisor: Dr Wenchao Ma
Dissertation Titles: *Longitudinal Cognitive Diagnoses Models: Item Parameter Drift Detection, Missing Data Analysis and Three-Step Approach*

University of Science and Technology of China (USTC)   September 2018 – July 2021
Master's in Business Administration
Advisor: Dr. Li Yongjun
Thesis Title: *Mobile Payment Services: An Empirical Study of Consumers' Continuous Use Intention and Usage Behavior*

African Institute for Mathematical Sciences (AIMS), Rwanda   August 2016 – June 2017
MSc Mathematical Science
Advisor: Dr. Joseph Nzabanita
Thesis Title: *Estimation of Parameters in the Bi-linear Regression Model when One Covariance has a Uniform Structure*

University of Ghana   September 2011 – May 2015
BSc Mathematics

COMPUTER SKILLS

Writing: Microsoft Word, LaTeX
Presentation: PowerPoint, Beamer
Statistical Analysis: SPSS, AMOS, PLS-Smart, R

RESEARCH FOCUS

Applications and Methodological issues related to [longitudinal] Diagnostic Classification Models
Application of Structural Equation Models in Behavior Research

PROFESSIONAL ORGANIZATION MEMBERSHIP

American Educational Council (AERA)
National Council on Measurement (NCME)

SERVICES

The University of Alabama
College of Education graduate student   September 2023 – Present
representative at the Diversity Council

Reviewer for peer-review journals
Data Base for Advancement
Journal of Structural Equation Model
Sustainable Production and Consumption
Journal of Public Affairs

WORK EXPERIENCE

University of Arkansas   Beginning August 2025
Teaching Assistant Professor of Ed Stats & Res. Methods
Department of Counseling, Leadership, and Research Methods
College of Education and Health Professions

The University of Alabama   August 2022 - Present
Quantitative Research Assistant
College of Education
Department of Educational Studies in Psychology, Research Methodology, and Counseling

Kabkork Publication Ltd.   September 2017 – June 2018
High School Mathematics Book Designer

University of Ghana   September 2015 – July 2016
IT Administrator
Akuafo Hall ICT Lab.

Kabkork Publication Ltd.   November 2015 – May 2016
High School Book Designer

Ashaiman Senior High School   May - August 2014
Mathematics Tutor, Intern
Mathematics Department

GUEST LECTURE

The University of Alabama   Spring 2024
BER 658: Psychometric Theory and Practice
Course Instructor: Dr Kaiwen Man
Topic: Introduction to R
- Introduce basic concepts in R such as vectors, basic statistical analyses, matrix computation, and data manipulation.
- Provided hands-on guidance and support for students on how to apply these to data set.

The University of Alabama   Spring 2023
BER 608: Survey Research
Course Instructor: Dr Stefanie Wind
Topic: Exploratory Factor Analysis (EFA) in R
- Prepared code for EFA in R

- Covered key concepts in factor analysis, data preparation and interpretation of results.
- Created hands-on tutorial videos on other related topics such as item response theory to complement instruction provided by Dr. Wind.

University of Science and Technology of China   Spring 2020
Bootcamp on Structural Equation Modeling (SEM)
- Led a comprehensive three-day workshop on Structural Equation Modeling for an international audience of graduate students.
- Provided instruction on SEM principles, statistical foundations, and practical applications using SPSS and IBM AMOS.
- Developed and delivered engaging lectures on model specification, estimation, and interpretation of SEM results.
- Prepared and demonstrated the use of SPSS for data preparation and analysis, and IBM AMOS for advanced SEM modeling.
- Facilitated hands-on sessions, allowing participants to apply SEM techniques using SPSS and IBM AMOS with real-world datasets.

HONORS AND AWARDS

The Chesed Foundation Scholarship	January 2009 – May 2015
AIMS/MasterCard Scholarship	August 2016 – June 2017
The Belt and Road Scholarship of USTC	September 2018 – July 2021
Graduate Council Fellowship, The University of Alabama	August 2021 – May 2025
Center for Measurement Justice Travel Scholarship for Minoritized Professionals in Educational Measurement: $3,000 in funding for travel expenses to attend NCME 2023 conference in Chicago, IL	December 2022
Dr Brad S Chissom Endowed Scholarship: $1500	August 2023
William W Taube Doctoral Scholarship: $1,000	August 2024

MANUSCRIPT UNDER REVIEW IN PEER REVIEW JOURNALS

Lugu, B., & Wind, S. A. (major revision). Impact of Item Characteristics on Item Selection Procedures in Mokken Scale Analysis.

Lugu, B., Guo, W., & Ma, W. (Accepted). Cognitive Diagnosis Model for Disengaged Behaviors.

Lugu, B., & Ma, W. (major revision). Investigating the Impact of Missing Data in Longitudinal Diagnostic Classification Model

Lugu, B., & Wind, S. A. (under review). A Multigroup Invariance Analysis of the Effect of Information, Communication and Technology Engagement on Students' Reading Achievement in Public and Private Schools in the United States.

CONFERENCE PRESENTATIONS

Lugu, B., Chen, Y., Yin, Y., Ma, W. (2025). Assessing the Performance of Wald Test for Detecting Item Parameter Drift in Longitudinal Cognitive Diagnosis Models [Poster presentation]. National Council on Measurement Education (NCME) Conference 2025, Denver, USA.

Lugu, B., & Wind, S. A. (2024). Impact of Item Characteristics on Item Selection Procedures in Mokken Scale Analysis [Paper presentation]. National Council on Measurement Education (NCME) Conference 2024, Philadelphia, USA.

Wind, S. A., **Lugu, B**., & Wang, Y. (2024). Combining Nonparametric and Parametric IRT to Explore Differences in Measurement Quality between Subgroups [Paper presentation]. National Council on Measurement Education (NCME) Conference 2024, Philadelphia, USA.

Lugu, B., Ma, W., Yin, Y., & Cheng, Y. (2024). Assessing Intervention effectiveness using longitudinal cognitive diagnosis models [Paper presentation]. National Council on Measurement Education (NCME) Conference 2024, Philadelphia, USA.

Lugu, B., Ma, W., Guo, W., & Schumacker, R. (2023). Cognitive Diagnosis Model for Disengaged Behaviors [Paper presentation]. National Council on Measurement Education (NCME) Conference 2023, Chicago, USA.

Cao, C., **Lugu, B.**, & Li, J. (2023). The Sensitivity of Bayesian Fit Indices to Structural Misspecification in Structural Equation Modeling. Structural Equation Modeling: A Multidisciplinary Journal, 1-17.

Chen, Y., **Lugu, B.**, & Ma, W. (2023). Applying The Item Response Tree Model to CNI Test for Individual Moral Inclination Measurement [Paper presentation]. American Educational Research Association (AERA) Conference 2023, Chicago, USA.

Wind, S.A., **Lugu, B.** & Wang, Y. A sequential Moken scaling approach to evaluate response quality in survey research. Behav Res (2023). https://doi.org/10.3758/s13428-023-02147-9

PEER REVIEW JOURNAL PUBLICATIONS

Chen, Y., **Lugu, B.**, Ma, W., & Han, H. (2024). Scoring Individual Moral Inclination for the CNI Test. *Stats*, *7*(3), 894-905. https://doi.org/10.3390/stats7030054

Wind, S. A., **Lugu, B.**, & Wang, Y. (2024). Combining Mokken Scale Analysis with and rasch measurement theory to explore differences in measurement quality between subgroups. *International Journal of Testing*, 1-31. https://doi.org/10.1080/15305058.2024.2383876

Cao, C., **Lugu, B.**, & Li, J. (2024). The Sensitivity of Bayesian Fit Indices to Structural Misspecification in Structural Equation Modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, *31*(3), 477-493. https://doi.org/10.1080/10705511.2023.2253497

Ekow Arkorful, V., **Kweku Lugu, B.**, Shuliang, Z., & Mamley Charway, S. (2024). Investigating COVID-19 vaccine uptake intention using an integrated model of protection motivation theory and an extended version of the theory of planned behavior. *Health Communication*, 39(5), 998-1011. https://doi.org/10.1080/10410236.2023.2201730

Wind, S. A., & **Lugu, B.** (2024). Combining nonparametric and parametric item response theory to explore data quality: Illustrations and a simulation study. *Applied Measurement in Education*, 37(2), 109-131. https://doi.org/10.1080/08957347.2024.2345592

Wind, S. A., **Lugu, B.**, & Wang, Y. (2024). A sequential Moken scaling approach to evaluate response quality in survey research. *Behavior Research Methods*, 56(3), 2273-2291. https://doi.org/10.3758/s13428-023-02147-9

Decker, E. N., & **Lugu, B.** (2024). Black Religious Engagement and Post-College Educational Pathways: The Role of Demographic Variables. *Innovative Higher Education*, 1-19. https://doi.org/10.1007/s10755-024-09698-5

Basiru, I., Liu, G., Arkorful, V. E., **Lugu, B. K.**, Yousaf, B., Hussain, M., & Jama, O. M. (2024). Indigenous perceptions of factors influencing behavioral intentions towards climate change mitigation: An assessment. *International Journal of Public Administration*, *47*(1), 1-13. https://doi.org/10.1080/01900692.2022.2078838

Arkorful, V. E., & **Lugu, B. K.** (2023). Understanding rate evasion behavior in local governance: Application of an extended version of the theory of planned behaviour. *Public Organization Review*, *23*(3), 1035-1054. https://doi.org/10.1007/s11115-021-00561-1

Arkorful, V. E., Shuliang, Z., & **Lugu, B. K.** (2023). Investigating household waste separation behavior: The salience of an integrated norm activation model and the theory of planned behavior. *Journal of Environmental Planning and Management*, *66*(10), 2195-2221. https://doi.org/10.1080/09640568.2022.2063112

Rufai, O. H., Chu, J., Sayibu, M., Shahani, R., Amosun, T. S., **Lugu, B. K.**, ... & Cherisol, M. P. (2023). Why should I vaccinate? The role of mindfulness and health-protective behaviours during the COVID-19 pandemic. *Health Policy and Technology*, *12*(2), 100749. https://doi.org/10.1016/j.hlpt.2023.100749

Arkorful, V. E., **Lugu, B.** K., & Shuliang, Z. (2023). Predicting Health Insurance Policy Subscription Intention: An Empirical Study. *Social Work in Public Health*, *38*(4), 281-297. https://doi.org/10.1080/19371918.2022.2135662

Arkorful, V. E., **Lugu, B. K.**, Hammond, A., Tetteh, E., Budu, G., & Basiru, I. (2023). Health Insurance and the Probable Left-Out: A Social Exclusion-Based Study. In *Global Encyclopedia of Public Administration, Public Policy, and Governance* (pp. 6103-6117). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-31816-5_4269-1

Arkorful, V. E., & **Lugu, B. K.** (2023). Political Party "Footsoldierism" and "Vigilantism": An Empirical Study. In *Global Encyclopedia of Public Administration, Public Policy, and Governance* (pp. 9655-9672). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-31816-5_4275-1

Arkorful, V. E., **Lugu, B. K.**, Charway, S. M., & Arkorful, V. A. (2023). SARSCOV‑19 amidst corruption: Does the civil society matter?–An empirical study. *Journal of Public Affairs*, *23*(1), e2825. https://doi.org/10.1002/pa.2825

Arkorful, V. E., **Lugu, B. K.**, Tetteh, E., & Arkorful, V. A. (2022). Voters' voting intention: The salience of celebrity endorsement—Evidence from Ghana. *Journal of Public Affairs*, *22*, e2803. https://doi.org/10.1002/pa.2803

Arkorful, V. E., & **Lugu, B. K.** (2022). Voters' behavior: probing the salience of manifestoes, debates, ideology and celebrity endorsement. *Public Organization Review*, *22*(4), 1025-1044. https://doi.org/10.1007/s11115-021-00557-x

Bondzie‑Micah, V., Qigui, S., Arkorful, V. E., **Lugu, B. K.**, Bentum‑Micah, G., & Ayi‑Bonte, A. N. A. (2022). Predicting consumer intention to use electronic health service: An empirical structural equation modeling approach. *Journal of Public Affairs*, *22*(4), e2677. https://doi.org/10.1002/pa.2677

Arkorful, V. E., **Lugu, B. K.**, Basiru, I., Hammond, A., Arkorful, V. E., & Budu, G. (2022). Voter's choice of a presidential candidate: An empirical study. *Journal of Public Affairs*, *22*(3), e2576. https://doi.org/10.1002/pa.2576

Arkorful, V. E., **Lugu, B. K.**, Arkorful, V. A., & Charway, S. M. (2022, May). Probing the predictors of fraud using the fraud diamond theory: An empirical evidence from local governments in Ghana. In *Forum for Development Studies* (Vol. 49, No. 2, pp. 291-318). Routledge. https://doi.org/10.1080/08039410.2022.2080759

Arkorful, V. E., Hammond, A., **Lugu, B. K.**, Basiru, I., Sunguh, K. K., & Charmaine‑Kwade, P. (2022). Investigating the intention to use technology among medical students: An application of an extended model of the theory of planned behavior. *Journal of Public Affairs*, *22*(2), e2460. https://doi.org/10.1002/pa.2460

Arkorful, V. E., Shuliang, Z., **Lugu, B. K.**, & Jianxun, C. (2022). Consumers' mobile health adoption intention prediction utilizing an extended version of the theory of planned behavior: The moderating role of internet bandwidth. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems*, *53*(2), 96-114. https://doi.org/10.1145/3533692.3533699

Arkorful, V. E., **Lugu, B. K.**, & Shuliang, Z. (2021). Unearthing mask waste separation behavior in COVID-19 pandemic period: An empirical evidence from Ghana using an integrated theory of planned behavior and norm activation model. *Current Psychology*, 1-16. https://doi.org/10.1007/s12144-021-02313-2

Arkorful, V. E., **Lugu, B. K.**, Hammond, A., Basiru, I., Afriyie, F. A., & Mohajan, B. (2021). Examining quality, value, satisfaction and trust dimensions: An empirical lens to understand health insurance systems actual usage. *Public Organization Review*, 1-19. https://doi.org/10.1007/s11115-020-00498-x

Arkorful, V. E., **Lugu, B. K.**, Hammond, A., & Basiru, I. (2021, May). Decentralization and citizens' participation in local governance: Does trust and transparency matter?–An empirical study. In *Forum for development studies* (Vol. 48, No. 2, pp. 199-223). Routledge. https://doi.org/10.1080/08039410.2021.1872698

Arkorful, V. E., Hammond, A., Basiru, I., Boateng, J., Doku, F., Pokuaah, S., ... & **Lugu, B. K.** (2021). A cross-sectional qualitative study of barriers to effective therapeutic communication among nurses and patients. *International Journal of Public Administration*, *44*(6), 500-512. https://doi.org/10.1080/01900692.2020.1729797

Lukman, S., Bao, P. X., **Kweku‑Lugu, B.**, Arkorful, V. E., Latif, A., Gadabu, A., ... & Sadiq, M. A. (2021). Diasporan students social entrepreneurship intention: The moderating role of institutional support. *Journal of Public Affairs*, *21*(1), e2108. https://doi.org/10.1002/pa.2108

Kwade, P. C., **Lugu, B. K.**, Lukman, S., Quist, C. E., & Chu, J. (2019). Farmers' attitude towards the use of genetically modified crop technology in Southern Ghana: The mediating role of risk perception. *AIMS Agriculture & Food*, *4*(4). doi: 10.3934/agrfood.2019.4.833