

The
Center for Assessment and Research Studies
presents the

STUDENT INTERNSHIP RESEARCH SYMPOSIUM

July 26, 2024
11:00 AM – 1:00 PM
Lakeview 1104 or Virtual
(Log-in Information below)

Bilingualism and Math Performance: An Analysis of Results From the 2022 PISA

Morgan McDaniel & Brian C. Leventhal

Balanced bilingualism is positively associated with math achievement. (Hartanto et al., 2018). However, not all Bilingual students are equally proficient in both languages and may show a preference for their Primary language (L1) over their secondary language (L2). This study investigates the relationship between linguistic factors and math performance on standardized assessments. Using data from the 2022 PISA assessment, the study examines whether the language spoken at home influences students' math performance. By identifying key linguistic factors and their impact on test performance, the research aims to provide insights and recommendations for educators and policymakers to support bilingual students in their math education.

Enhancing Test Effort: Introductory Videos and Response Time Effort

Nicholas Palmer & Autumn Wild

The rise of computer-based testing has enabled the measurement of various aspects of a test event beyond just the answers provided by the test taker (Wise, 2017). For example, we can examine the supposed effort during an examinee's testing session. Early methods used self-report measures to gauge effort (Wise & Kong, 2021), but recent advancements highlight RTE as a more reliable measure in computer-based tests (Rios & Deng, 2021). Introductory videos before an assessment may enhance student motivation and effort in low-stakes assessments. At James Madison University, we examine the impact of such videos on Response Time Effort (RTE) among first-year students using Assessment Day data. By comparing RTE between students who fully watched the video and those who did not, our research aims to determine if significant differences exist. This study contributes to the understanding of how introductory videos can potentially improve the validity of assessment scores.

Behavioral Health Barriers in Washington State Schools

Alexis Downey, Laura Pires Gifford, Sarah Ullrich-French, & Brian French

Healthy students can lead to school engagement, student persistence, and overall academic success. However, accessing health resources, especially behavioral health, can be challenging in rural areas due to unique factors, including a limited number of professionals, transportation to services, and limited options of services (Hughes et al. 2022; Mathias et al; 2021; Jensen et al. 2020; Graves et al. 2023). Cultural factors hinder help-seeking behavior in rural areas, such as mental health stigma and privacy concerns (Jensen et al. 20210; Mathias et al. 2021). The majority of behavioral health needs and barriers in rural areas were identified prior to the 2019 pandemic. School context and services have changed. We assess current behavioral health risks, needs, and barriers across Washington K-12 schools and make comparisons between rural and urban areas. Results will be interwoven with other needs outside of education to inform policy makers of the behavioral health needs in Washington.

Using Logistic Regression as Supervised Machine Learning to Predict Rapid Guessing

Zach Baron & Dr. Yu Bao

Test-taking disengagement can result in rapid guessing, which negatively biases students' academic performance (Rios et al., 2022). Several methods which make use of response-time thresholds to identify rapid guessing have been proposed (Wise, 2017). However, this approach may be limited by focusing on response time as the exclusive predictor (Wise, 2019). The current project aims to investigate using logistic regression as a supervised machine learning model to predict rapid guessing using additional predictors beyond response time.

Zoom Information

<https://jmu-edu.zoom.us/j/84663883552>

Meeting ID: 846 6388 3552