

Nils Myszkowski, PhD
Psychology, Dyson College of Arts and Sciences

**Socio-economic factors of literacy: Disentangling measurement biases
and individual differences in an international assessment database**

This grant project will utilize the Progress in International Reading Literacy Study (PIRLS) 2021 database to investigate the psychometric properties of literacy assessment tools across various groups. Students in a psychometrics class will analyze how different socio-economic and cultural factors, such as the frequency of reading for pleasure and feelings of hunger at school, affect literacy scores. By employing a psychometric methodology focused on ensuring measurement invariance and psychometric robustness prior to analyzing group differences, the students will learn the importance of disentangling measurement effects (i.e., biases) from true individual/group differences. Through this hands-on approach, students will not only learn to apply theoretical concepts both in a practical setting and at scale, but will also gain an understanding of the broader implications of their findings for educational equity and inclusiveness. The project will culminate in a comprehensive analysis, aiming to contribute to the improvement of literacy assessment methodologies worldwide.