

## **What's in a grade? A multiple perspective validity study on grading policies, practices, values, and consequences**

The current trend towards globalization, immigration, and internationalization of schools and universities around the world has led to the increased use of grades across educational systems. Grades, the process of summing student achievement using a numerical or ordinal scale, are the dominant currency that enables student migration patterns; in particular, the recent upsurge of Chinese students studying and settling in Canada. Given the use of grades for student promotion, mobilization, and admission into educational programs internationally, there is an urgent need to understand the validity of grades—the alignment of grading policies, practices, values, and consequences—within and across learning contexts. However, despite their significant function, very little is known about the validity of grades given the distinct differences in learning cultures within Canada and China. The purpose of this study is to investigate the validity of grades by examining the policies, practices, values and consequences of teacher constructed grades in Canada and China.

Currently, the lack of research on grading practices provides unprecedented challenges to grade interpretation and use across global educational systems. Grades are often used as the high-stakes decision-making tool for accepting students into Canadian universities. However, grades are not consistently constructed or valued internationally. Understanding differences in the learning culture of grading within and across these two countries is important to enable valid interpretations of student achievement based on grades. Ensuring valid grade interpretation is critical given the direct impact of grades on students who come to Canada to study and settle, and the impact on Canada itself—socially, educationally, and economically. The short-term implications are evident in changing school and community dynamics across Canada; the long-term impact will affect the availability of knowledge workers and citizens supporting the Canadian economy.

Despite the impact of grading on classroom instruction, researchers have long recognized that teachers' grading practices lack theoretical grounding. They call for examining grading practices with contemporary validity theories instead of traditional psychometric approaches to validity. These traditional approaches are ill-fitted to classroom assessment practices as they rely on standardized assessments and large-scale data. In contrast, contemporary validity theories integrate multiple perspectives into a socio-culturally situated argument on grading practices. Our study integrates the perspectives of teachers, students, parents, and principals to understand the socio-cultural factors influencing the validity of grades within and across Canada and China. Thus this study contributes towards both the development of validity theory and the practice of grade use.

This study employs a sequential mixed-methods design, featuring multiple iterations of data collection and analysis with multiple participants over five years. Year 1 examines grading policies from historical, societal, and policy viewpoints within Canada and China framing the larger learning and grading contexts. Year 2 adopts a focus group approach to examine how teachers construct grades in relation to achievement and non-achievement factors. Year 3 determines whether teachers, students, parents, and principals interpret the values of grades similarly. Year 4 explores the consequences of grade use on students' motivation and achievement. In Year 5, we use empirical evidence collected from Years 1-4 to create validity arguments for each of the two learning cultures to examine the alignment of grading policies, practices, values, and consequences in Canada and China.