学位論文の要旨(論文の内容の要旨) Summary of the Dissertation (Summary of Dissertation Contents)

論 文 題 目

Dissertation title

"Matters of Measure: Applied Econometrics in the African and Asian Education Context"

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Education has remained at near the top of the global development agenda since declared a fundamental human right with the signing of the Universal Declaration of Human Rights in 1948. The focus of this dissertation is education in low- and middle-income countries, where children generally have the least access to quality education and where specific subsets of the population may be disproportionately disenfranchised from the education system.

The subjects of each chapter include both students and teachers and vary in outcome variables from test scores to preferences. The motivation to study education in these countries stems from understanding the role of education in advancing human development, and by extension, economic and political development. The aim of this dissertation, widely shared, is that by studying education, progress in poverty alleviation and gender equality can be more rapidly advanced through policies that support smarter resource allocation.

This dissertation combines five separate studies, set as chapters, into one body of work. The first two chapters use cross-sectional secondary data, where the final three chapters feature primary, short panel data collected by the author and his co-authors. Each chapter features one or two econometric methods to address endogeneity within the given sample populations. Some of these methodologies are rudimentary to the field of applied econometrics, such as ordinary least squares regression and difference in difference regression, while others, such as the double lasso regression and partitional clustering, represent contemporary developments in the field of machine learning.

The structure of the dissertation is as follows: Chapter 1 discusses the impact of orphanhood on test scores, driven primarily by the HIV-AIDS crisis in southern and eastern Africa. Chapter 2 investigates the correlation between more gender equal countries and the associated gender gap between boys' and girls' test scores. Chapter 3 is an experimental study comparting the use of simulations, comparted with traditional hardware, in physics education in Thailand. Chapter 4 is a collaborative study with other members of the TAOYAKA program which ran a randomized controlled trial to compare the effects of information and communication technology (ICT) against traditional teaching methods on learning outcomes for climate change awareness in Myanmar. Lastly, Chapter 5 studies the revealed preferences of teachers on the characteristics of job placements for rural schools in Myanmar.

備考 論文の要旨はA4判用紙を使用し、4,000字以内とする。ただし、英文の場合は1,500語以内とする。

Remark: The summary of the dissertation should be written on A4-size pages and should not exceed 4,000 Japanese characters. When written in English, it should not exceed 1,500 words.