

**Title of Project : Research on Educational Inequality in the Post-COVID-19  
Era: Investigating Global Issues Through Innovation of  
Online Survey and Experimental Methods**

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**【Purpose and Background of the Research】**

The COVID-19 pandemic has disrupted many socioeconomic activities worldwide; for instance, temporary closures of schools and changes in children's learning and other activities have created concerns about the long-term impact of the pandemic on the next generation.

From March 2020, children's environment has completely changed. First, school education had to rely on the family. Second, children had to change their daily activities significantly. Third, parents have shifted to the internet and SNS from school or teachers to obtain information for their children. Fourth, after-school education has shifted to online instruction, and the internet connection at home determines access to learning outside school.

Our research team has developed the Japan Child Panel Survey to analyze changes in children's cognitive and non-cognitive abilities, evaluated the effects of public policies (Naoi et al, 2021), and compared the income gradient of children's achievement with that of other countries (Akabayashi et al, 2020). We also pioneered lab economic experiments about children.

However, we shift our focus to an emerging disparity in the transformation of society due to the COVID-19 pandemic. The existing research methods also require further innovation. Under the pandemic, it became difficult to perform lab experiments on campuses. Although there have been online economic experiments, providing a controlled remote experimental environment for children has been found to be more difficult than for adults. Because the COVID-19 pandemic has forced more children to be familiarized with the online learning environment, it is an opportunity for innovation in online surveys and experimental methods.

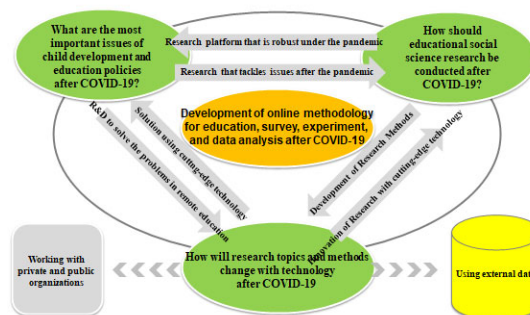
In this study, we will develop methods for conducting surveys and experimental studies online that target parents and children. Then, we will examine the causal effects of the COVID-19 pandemic on children's cognitive and non-cognitive abilities, behaviors, and other outcomes by comparing the situations in Japan with those of other countries and seek clues to solve new educational disparities.

**【Research Methods】**

We will first set up a national representative random sample of children for the survey and define four cohorts of subjects. (1) In the *general cohort*, school and residence information will be collected and merged with the survey data. (2) In the *activity cohort*, we will ask parents/children

to record the activities of children. (3) In the *intervention cohort*, the subjects will be randomly grouped, and the effects of different interventions will be measured. (4) In the *experiment cohort*, we will use a system that enables experimental research remotely. We will use cutting-edge technology to enable these innovations in research.

The figure shows the framework of this project. We will



make an international comparison of changes in the relation between educational outcomes and family backgrounds and examine the effects of educational policies, such as the use of ICT at school, children's daily activities, and parental access to educational information on children's and parental outcomes.

**【Expected Research Achievements and Scientific Significance】**

This project aims to use new online research methodologies to find a solution to an emerging learning disparity. We will also compare the changes in educational disparities in Japan with those in Western and East Asian countries and investigate the role of culture and public policies. Then, we will elucidate the direction of research about educational disparities in the post-COVID-19 era.

**【Publications Relevant to the Project】**

- Naoi, Akabayashi, Nakamura, Nozaki, Sano, Senoh, & Shikishima. 2021. "Causal Effects of Family Income on Educational Investment and Child Outcomes: Evidence from a Policy Reform in Japan." J. Japanese and International Economies, 60. 101122.
- Akabayashi, Nozaki, Yukawa, & Li. 2020. "Gender Differences in Educational Outcomes and the Effect of Family Background: A Comparative Perspective from East Asia." Chinese J. Sociology. 6(2) pp.315-335.

**【Homepage Address and Other Contact Information】**

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