## **Grant-in-Aid for Scientific Research (S)**

#### **Broad Section A**



Title of Project: The longitudinal study on the effects of early childhood education and care on child development

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Research Project Number: 19H05590 Researcher Number: 10749302 Keyword: early childhood education and care, child development

## [Purpose and Background of the Research]

Numerous longitudinal studies conducted in western countries have shown that the quality of early childhood education and care (ECEC) exerts long-term effects on child development and well-being. The enhancement of the quality of ECEC is issues that take precedence for many countries. However, the quality of the ECEC on offer has not been adequately examined in Japan.

This study will first, longitudinally examine the effects of the quality of ECEC on the development and the sense of well-being of children. The multidimensional quality of ECEC environment including their structural and process-related quality will be scrutinized in detail and will be evaluated. Second, the efforts by local governments to ensure and to improve the quality of ECEC will be assessed. Third, an effective means of ensuring and improving the quality of ECEC will be contemplated and implemented on the basis of the outcomes of the first tow investigations.

#### [Research Methods]

In the first part of the study, the factors that influence the development and the sense of well-being of children in ECEC settings will be examined longitudinally from age 0. Consent to participation in the study will be obtained in writing and privacy protection will be ensured for all participants. The study is designed to be unique because it intends to examine the environmental properties of ECEC settings such as the temperature, humidity, CO2 concentrations, and noise levels as indicators of structural quality. These properties will be measured via an environmental sensing system developed by members of the research team for the present study. This same team has also developed a Japanese process quality assessment tool. This tool and the conventional early childhood environmental rating scale (ITERS, ECERS) will be utilized to evaluate process quality. The emotional availability of teachers will also be assessed.

The second aspect of the study, will incorporate interview surveys and a nation-wide questionnaire will be administered to local government officials to examine the efforts of local authorities to ensure and to advance the quality of ECEC environments.

The third part of the study, will be grounded on the findings obtained from the first and second parts. At this stage, the researchers will consider and will implement an effective method of ensuring and augmenting the quality of ECEC settings.

# **[Expected Research Achievements and Scientific Significance]**

Very few longitudinal studies have been conducted in Japan on the effects of ECEC on child development. The present study provides valuable data on the quality of

①Longitudinal study on the effects of the quality of ECEC on child development and wellbeing

②Interview and questionnaire surveys of the efforts by local governments to ensure and improve the quality of ECEC

③Consideration of effective way of ensuring and improving the quality of ECEC based on the research findings

Japanese ECEC. In particular, measurement tools newly developed by the research team of the current study will be used and unique data will be collected. Therefore, this study is expected to inform ECEC policy and practice and to contribute to guarantee and to ameliorate the quality of childcare and education in Japan.

## [Publications Relevant to the Project]

S. Nozawa, Y. Yodogawa, M. Takahashi, T. Endo, & K. Akita 2017 Review of International Research on the Quality of Infant and Toddler Education and Care. Bulletin of the Graduate School of Education, The University of Tokyo, Vol.56, 399-419.

Y. Obuchi, T. Yamasaki, S. Toriumi, M. Hayashi, S. Nozawa, M. Takahashi, T. Endo, & K. Akita 2017 Environment Measurement and Action Analysis in Nursery Schools using IoT Cameras. IMPS 2017, P5-8, Nov. 20-22, 2017.

**Term of Project** FY2019-2023

**[Budget Allocation]** 85,500Thousand Yen

#### [Homepage Address and Other Contact Information]

http://www.cedep.p.u-tokyo.ac.jp/projects\_ongoing/kaken\_s/