

# Environmental Factors that Create Academic Achievement Gaps

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In order to reduce the disparity in children's academic achievement in different regions, we decided to investigate the environmental factors that contribute to this disparity. We found that economic disparity is closely related to the achievement gap.

In the same way that there is a correlation between economic disparity and academic achievement disparity within each family unit, there is also a close relationship between these two disparities when compared on a county-by-county basis.

## 1. introduction

### 【Research motivation】

We found that there is a disparity in children's academic achievement in different regions. We conducted this study to find the way to correct this disparity.

### 【Previous research】

The percentage of students who go on to a four-year college is less than 30% when the parents' annual income is less than 2 million yen. But the percentage exceeds 60% when the parents' annual income exceeds 10 million yen. Therefore, economic disparity is closely related to the disparity in academic achievement.

### 【Research objective】

To explore the environmental factors that create disparities in academic achievement.

### 【Hypothesis】

- Economic disparity has the greatest impact.
- The number of the tutoring school, which is one of the educational institution outside of school, contributes to the disparity.

## 2. Research Methods

### (1) Research subjects

Average income by prefecture, number of cram schools by prefecture, and co-test ranking by prefecture

### (2) Research procedure

The correlation between these two data and the common test rankings will be compared.

The number of cram schools and average annual income in each prefecture will be compared with the results of the common test.

### (3) Data processing method

The relationship between the number of cram schools and the average annual income was initially planned to be surveyed to the students.

Although we initially planned to conduct a questionnaire survey of students regarding the relationship with average annual income, we decided against it for privacy reasons, and only conducted a prefecture-by-prefecture survey.

## 3 Results and Discussion

### 【investigation 1】

Figure 1, Average Income

Figure 2, Number of cram schools

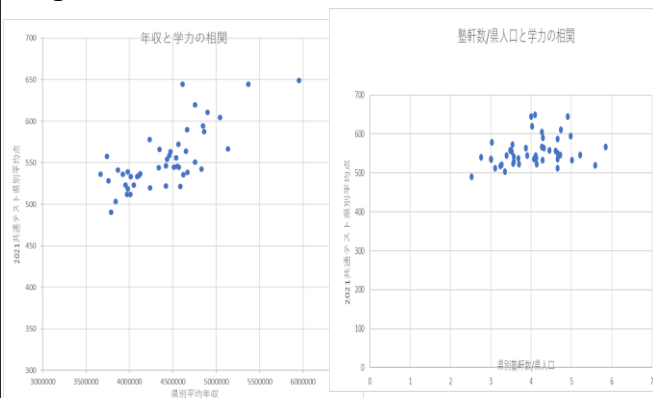


Figure 1 shows that there is a positive correlation between average income by county and the results of the common test. Figure 2 shows that there is no correlation between the number of cram schools by county and the results of the common test.

## 4 Conclusion, Future Prospects

### 【Conclusion】

The number of cram schools does not correlate with academic achievement. Since there is no correlation between the number of tutoring sessions and academic achievement, other factors are considered.

### 【Future prospects】

We will use other objective indicators of academic achievement to derive more accurate figures, and explore and discuss the environment surrounding the children to find other possible correlations.

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