Team 9

Analysis of the Educational Disproportion

Based on the effect of regional differences in Korea

Introduction

R-based analysis of imbalance in education

서울대 진학률 충북 '꼴찌'…교육 격차·불균형 '심각'

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세종 11.3명·대전 8.3명·충남 4.9명·충북 3.1명·강원 3명 순

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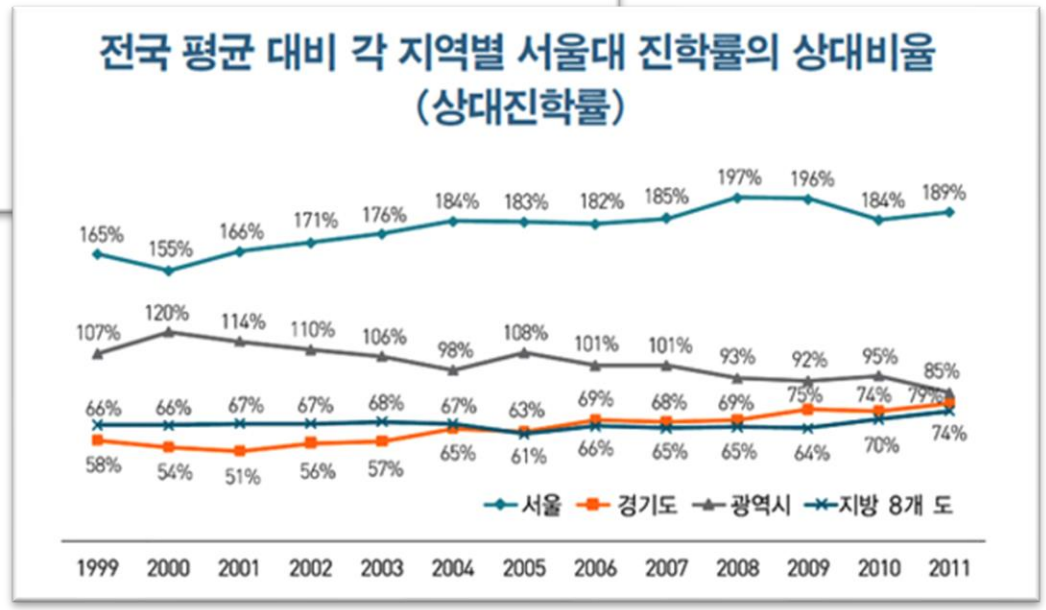


Project Aim

R-based analysis of imbalance in education

According to findings by the Bank of Korea and Statistics Korea, the educational disproportionality between regions has widened despite many standardization policies. With this point of view, we want to figure out the **effect and cause of the regional differences on these imbalance problems** in Korea.

Precedent study

R-based analysis of imbalance in education

- Suehye Kim., et al. ***Student Achievement Gap Trends on OECD Equity Indicators***: Evidence from Seoul Education Longitudinal Study (SELS: 2010~2018), 2020. 6.

- SungBae Oh, ***Analysis of the factors creating education districts in scholastic achievements***: Effect of the regional differences and pupil mobility The Journal of Korean Education, 2004.

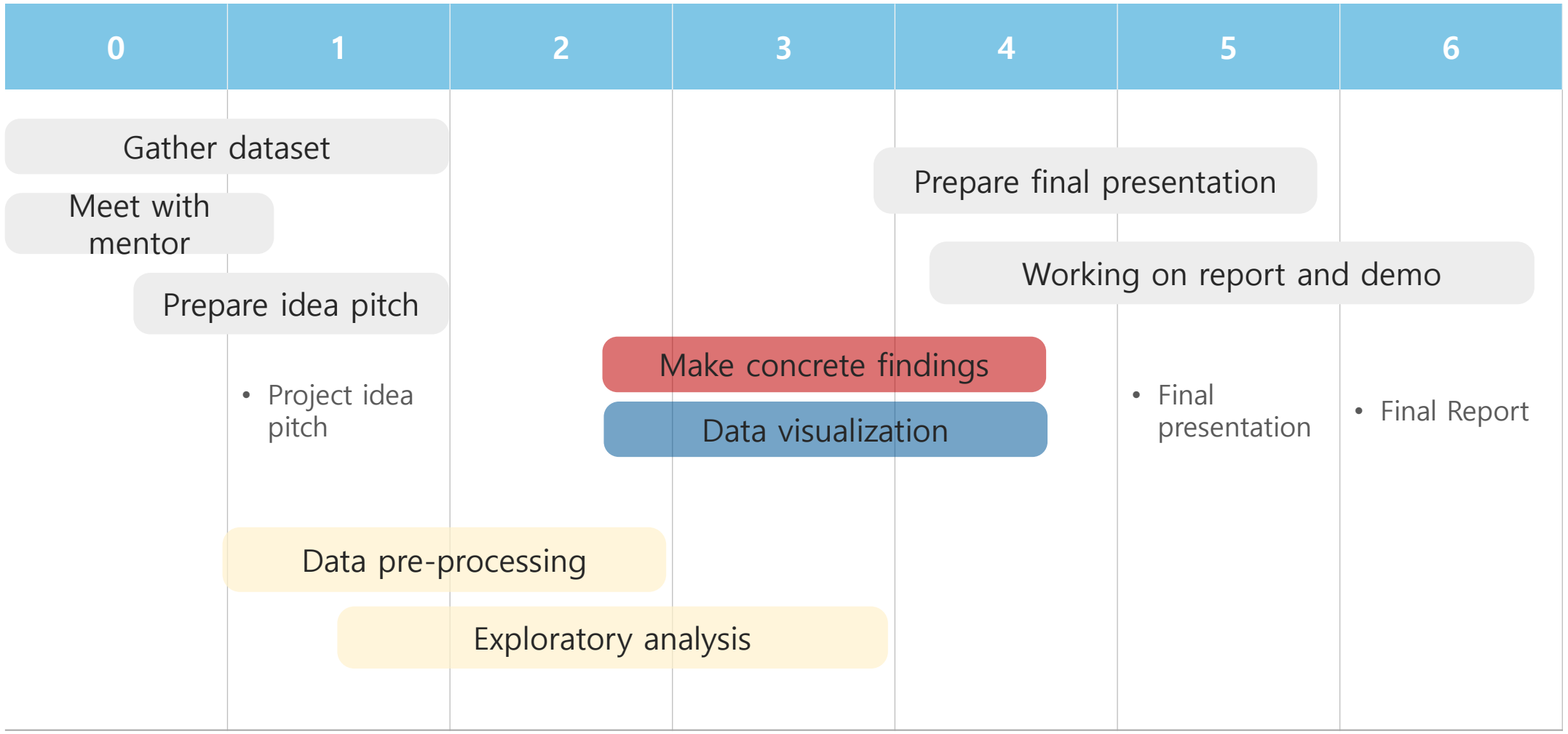
Methodology

R-based analysis of imbalance in education

- **Clustering**
  - Perform clustering based on academic achievement / admission rate / discontinuation rate
  - Visualization them in the Korean map
- **ANOVA & Tukey post-hoc:** Analysis of academic performances by city size (city / town / villege)
- **Multivariate linear regression & Correlation analysis**
  - Independent variables: Current status of the educational environment (number of academies and teachers per student in the city, spending on private education, class size)
  - Dependent variables: academic achievement / admission rate / discontinuation rate

Plan

R-based analysis of imbalance in education



Dataset

R-based analysis of imbalance in education

- Korea Educational Statistic Services (KESS)

  - Status of private academies by region: number of academies, class size, average tuition, etc.

  - Aggregate intake numbers of the university by region

  - Data of the disruption to students' academic work

- National Statistical Office: Student numbers by region
- Korean Statistical Information Service (KOSIS)

  - Spending on private education by region

  - College entrance rate and academic achievement by region

  - Percentage of the students who interrupt their education

- Department of Education: Result of research on the number of private academies
- Korea Institute for Curriculum and Evaluation: Results of the academic achievement evaluation

Thank you for listening!

Any question?