



EPPS6354 Information Management Research Proposal

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1 Database Purpose

Impact of Online Classes on High School Students' Grades

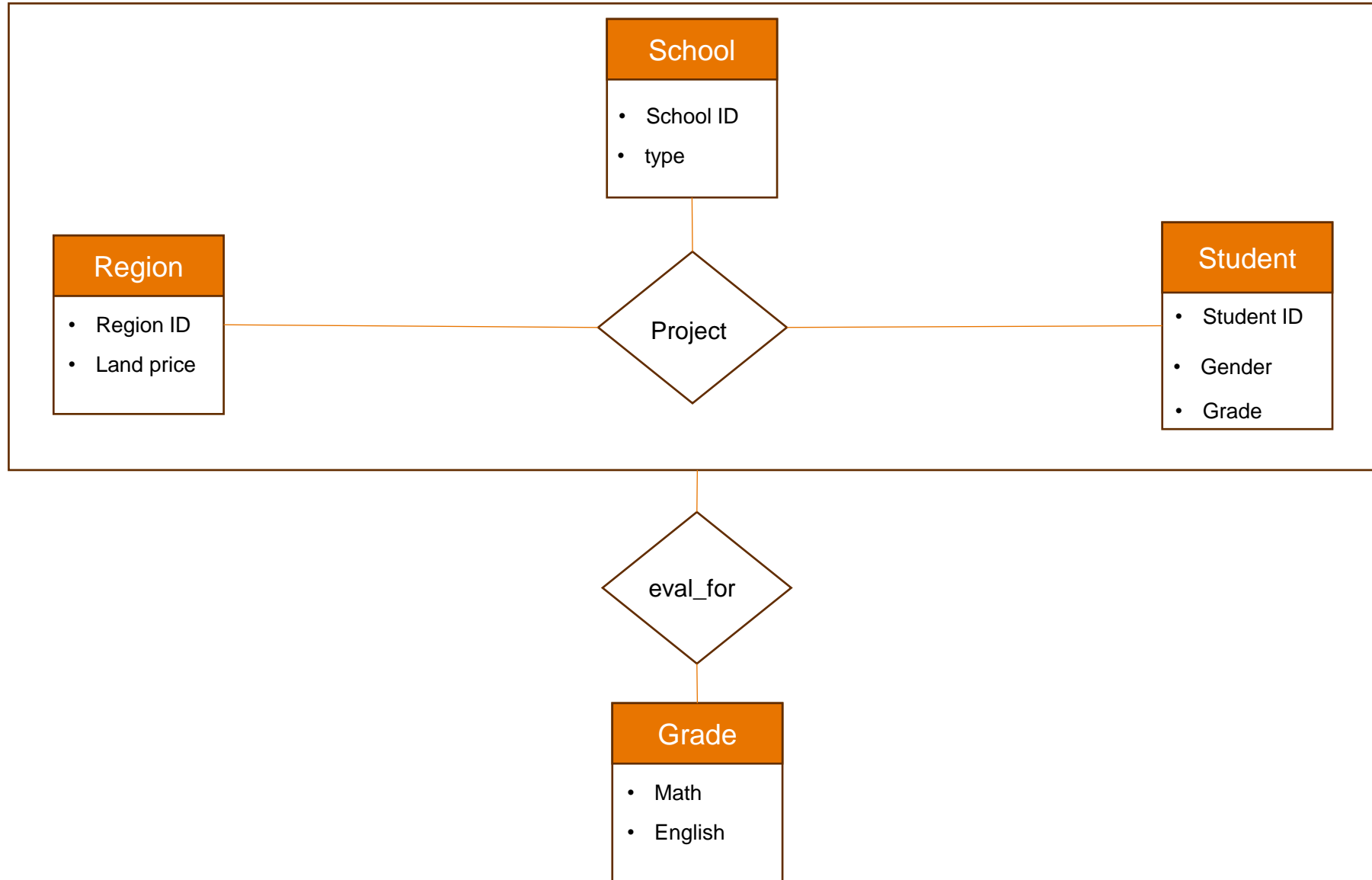
- *Transition to online classes* during the pandemic had *varied effects* on high school students' grades.
- Impact influenced by financial, organizational, and *characteristic features of schools*.
- *Regional differences* in support for schools also contributed to varying impacts.

1 Database Purpose

Improving Access to Data for Informed Decision-Making

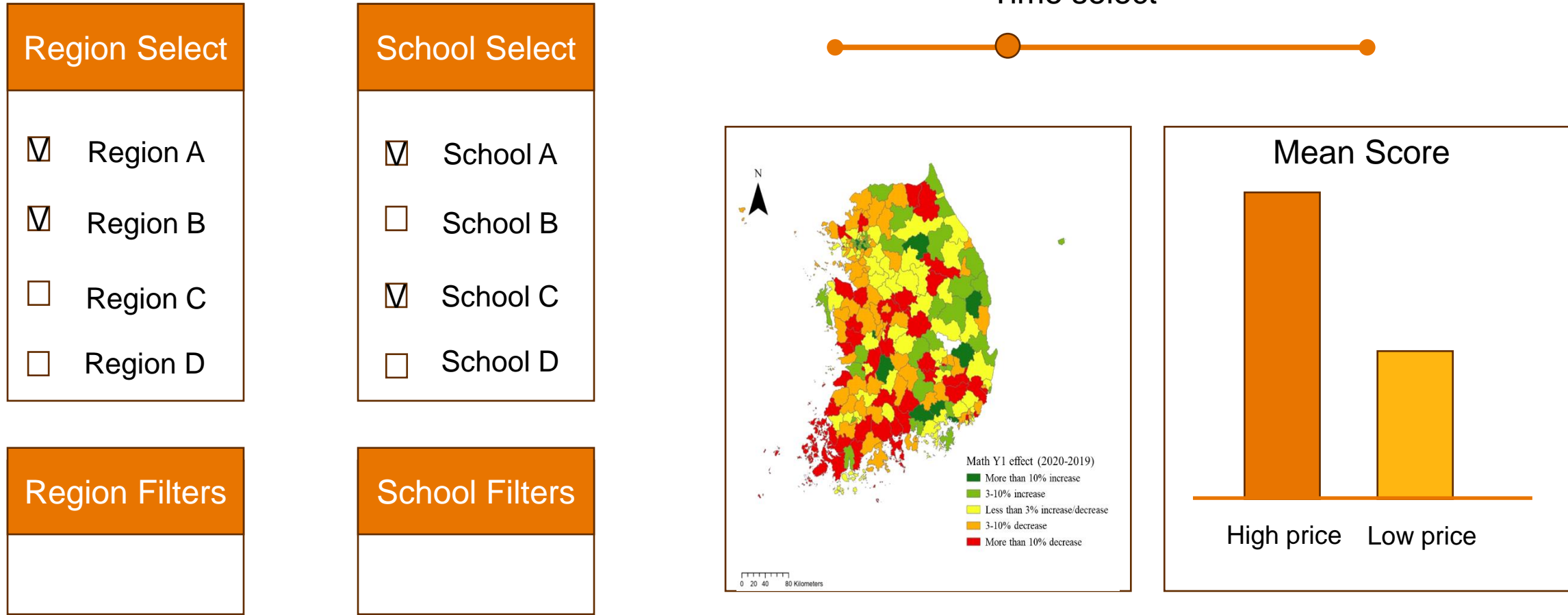
- **Challenge:** *Current data* on schools and students' grades provided individually, *making comparisons difficult*.
- **Solution:** Research aims to *create a comprehensive dataset* allowing easy comparison across schools and regions.
- **Benefits:** Enables policymakers, school administrators, parents, and students to *assess and compare impacts* of online classes effectively.

2 Schema



3 Interface

Example Interface



4 Method

1) Data Insertion (*INSERT*)

- Purpose: *To insert new data* into the student grade dataset, school information dataset, and regional information dataset.

2) Data Select (*SELECT*)

- Purpose: *To select data that meets specific conditions*. For example, one could look up the average grades of schools in a particular region or compare grade changes before and after the pandemic.

3) Conditional Retrieval (*WHERE*)

- Purpose: *To filter data according to certain conditions*, such as comparing grades before and after the pandemic or querying the grades of schools in a specific region.

4 Method

4) Joining (*JOIN*)

- Purpose: *To combine school information and student grade data* to analyze grades by school or by region.

5) Subqueries and Aggregate Functions (*SUBQUERY & AGGREGATE FUNCTIONS*)

- Purpose: For complex analyses, *to use the results of another query within a query* or to *perform calculations such as average*, maximum, and minimum using aggregate functions.



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THANK YOU