

# **Application of Two Stage Cluster Sampling in Finnish Data of IEA Civic Education Study 1999**

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## **1. Introduction**

The aim of the paper is to present school sampling procedures, which are used in international student assessment studies. The Finnish school sample of the IEA Civic Education Study is used as an example in illustrating these procedures.

## **2. Civic Education Study and Target Population**

The International IEA Civic Education Study was conducted in 28 countries in 1998 - 2000. The main goal of the study was to identify and examine, in a comparative framework, the ways in which young people are prepared to undertake their role as citizens in democracies. The test included questions regarding students' factual knowledge and their attitudes towards issues within the following four domains:

- Democracy
- National Identity
- Social Cohesion and Diversity
- Economics/Media and Environment.

Target population of the study includes all students enrolled in that grade. Most students were aged 14 at the time of testing. In Finland these students were at the eighth grade of the secondary school. On the whole, target population size in Finland was 675 secondary schools with 67 560 students.

## **3. Stratification**

To get proportionally equal amount of students from all regions in Finland, the stratified sample was used. The stratification was made by using the five EU-regions (NUTS2), in which the development as well as the financial support is different indicating a different economical situation between these regions and thus in the schools as well. These regions (figure 1) are capital region Uusimaa (1),

Southern Finland (2), Eastern Finland (3), Mid-Finland (4) and Northern Finland (5). From each region 30 schools were sampled. The second stratification was the distinction between urban, semi-urban and rural areas.

#### 4. Sampling Method

In this study two stage cluster sampling was applied. In the first stage schools are selected using a PPS systematic sampling method. In this method, sampling is based on selection with probabilities proportional to size. In school surveys the total number of students in a school or in a target grade is the good measure of size (MOS). Since most of the analyses in Civics would be essentially student-based, selection of schools with probability proportional to size (number of students) would be appropriate.

In the second stage from each sampled school one class of students was selected by simple random sampling.

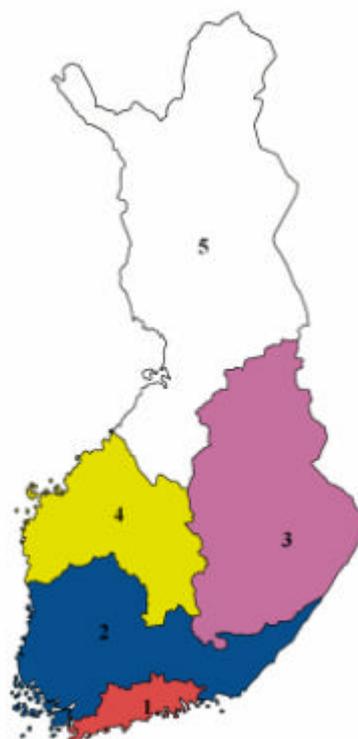


Figure 1. Five Finnish EU-regions.

#### 5. Sample Size and Final Sample

Designed sample size in Finland was 150 schools with total of 3 150 students. Four schools neglected to participate in the study. Therefore, the test material was sent to 3 003 students. The final sample size was 146 schools with 2 782 students. The response rate in Finland was 92.6 %, which according to the international standards was high.

#### REFERENCES

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