

**Thesis Title**      Comparison of Effects of Using Examinee Sampling and  
Multiple Matrix Sampling Techniques of Inferential  
Statistics

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### Abstract

The purposes of this study were 1) to compare means and variances of the sampled group using the technique of examinee sampling alone and the three plans of multiple matrix sampling technique and those of the population, 2) to compare means and variances between the technique of examinee sampling alone and those of the three plans of multiple matrix sampling and 3) to study the standard errors of the means obtained from the technique of examinee sampling alone and the three plans of multiple matrix sampling technique.

The instrument for collecting data was the Standardized Number Series Aptitude Test borrowed from the Education and Psychological Test Bureau, Srinakharinwirote University, Prasanmitr Campus. 60 test items were used for the technique of examinee sampling alone. The test was divided into 4, 3 and 2 subtests of 15, 20 and 30 items respectively for the multiple matrix sampling technique.

The population was 700 Prathom Suksa 6 students of the Kurumitr School Cluster in Muang Chiang Mai Office of Primary Education. They were in their second semester of the academic year 1991. 480 students were sampled by the proportional stratified random sampling from their examination scores. Z-test was used to compare mean scores. Chi-square test and F-test were used to compare the variances.

The results were :

1. means obtained from the technique of examinee sampling alone and the three plans of multiple matrix sampling technique and those obtained from the population were not significantly different

2. variances obtained from the technique of examinee sampling alone and the three plans of multiple matrix sampling technique and those obtained from the population were significantly different at .01 level

3. means and variances obtained from the technique of examinee sampling alone compared with those from the three plans of multiple matrix sampling technique were not significantly different

4. the standard error of the means obtained from the technique of examinee sampling alone was less than that from the three plans of multiple matrix sampling technique.