        The purpose of this study was to compare the analysis result of
variable affecting mathematic achievement of upper secondary level students
in Bangkok which obtained from multilevel analysis by OLS separate equation
technique and HLM technique. The sample consists of 649 students in Mathayom
Suksa 4 of the academic year 2531 and 21 teachers. The data were analysed
by two-level analysis. The major results were as follows:-

        1. When the obtained data were analysed by OLS technique. The
student-level data, intelligence, attitude and motivation were significantly
offected the mathematics achievement in some rooms but the average were not.
The HLM technique gave the different result by shown that intelligence and
attitude were significantly affected the mathematics archievement. The
class-level data that gave result significantly affected to the intercept in
both methods were experience of teaching and size of school.

        2. The multi level analysis by OLS technique had to prepare data
for analyse 2 times, student-level data and class-level data. The HLM
technique could done only one time. Beside this HLM technique could cross
check significant of variable varience before did each level of analysis
meanwhile OLS technique could not.