Amaraporn Surakarn.(2012). *A Study of Factor Structure and Antecedents of Adjustment of Gifted Students in Science and Mathematics.* Dissertation, Ph.D. (Applied Behavioral Science Research). Bangkok: Graduate School , Srinakharinwirot University. Advisor Committee: Assoc. Prof. Dr. Dusadee Yoelao , Lecturer Dr.Niyada Chittcharat, Lecturer Dr. Suthawan Harnkajornsuk.

The main objectives of this study were:- 1) to study the factor structure of adjustment and coping among gifted students in science and mathematics, 2) to study the linear structural relations model of antecedents of adjustment and coping among gifted students in science and mathematics. The Sample was 381 gifted students in science and mathematics who studied in Mathayom Suksa 4 level in the academic year 2011 at Mahidol Wittayanusorn School, Princess Chulabhorn's College, and in the Science classroom in university-affiliated school project. Instruments for collecting data were questionnaires with satifactory level of reliability ranging .697 to .942. Data were analyzed by SPSS for descriptive analysis statistics and LISREL program for confirmatory factor analysis and structural equation model .

The research results were as follows:

Adjustment of the gifted students in science and mathematics had 4 subfactors of academic adjustment, social adjustment, emotional adjustment and institutional attachment. The Confirmatory Factor Analysis showed that the adjustment model was fit with the empirical data, with the following Goodness-of-Fit Indices of:- Chi - square (χ^2) = 1.63 df=2 *(p-value = .020),* RMSEA = .04,CFI = 1.00 and NNFI= .99.

Coping had 2 main factors and 8 subfactors of coping: - 1) Problem-focused Coping: with 5 subtype factors of Confrontive coping, Distancing, Seeking social support, Planful problem-solving and Positive reappraisal; 2) Emotion-focused Coping: with 3 subtype factors of Self-controlling, Accepting responsibility and Escape-Avoidance.The Confirmatory Factor Analysis showed that the coping model was fit with the empirical data, with the following Goodness-of-Fit Indices of:- Chi - square (χ^2) = 31.65 df=9 *(p-value = .000),* RMSEA = .07,CFI = .97 and NNFI= .91.

The main research findings showed that the linear structural relations model of antecedences of adjustment and coping among the gifted students in science and mathematicswas fit with the empirical data, with the following Goodness-of-Fit Indices of:- Chi - square (χ^2) = 1936.01 df=650 *(p-value = .000),* RMSEA = 0.07, CFI = .93 and NNFI = .92.

This research findings showed that adjustment and coping among the gifted students in science and mathematics was directly affected by: - 1) emotion-focused coping, 2) problem-focused coping, and 3) peers support; and was indirectly effected by: - 1) self-concept, 2) perfectionism, 3) family functioning, 4) authoritative parenting style, and 5) empathy. All of variables explained the 86 percentage of the variance of adjustment among the gifted students in science and mathematics.