

C740978 : MAJOR SCIENCE EDUCATION

KEY WORD:

MANIPULATIVE SKILL/CHEMICAL LABORATORY EXPERIMENT

PORNPROM SAMRIT : MANIPULATIVE SKILL IN CHEMICAL LABORATORY EXPERIMENT OF UPPER SECONDARY SCHOOL STUDENTS OF THE DEMONSTRATION SCHOOLS UNDER THE JURISDICTION OF THE MINISTRY OF THE UNIVERSITY AFFAIRS. THESIS ADVISOR : ASSO.PROF. CHANPEN CHUAPHANICH, Ed.D.233 pp ISBN 974-637-243-2

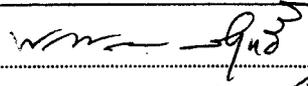
The purposes of this research were to study manipulative skill in chemical laboratory experiment of upper secondary school students of the demonstration schools under the jurisdiction of the ministry of the university affairs in the aspects of using materials and equipments, involving skills with skill in using materials and equipments, chemical substance, instrumental instoration, experimenting, and instrumental application. The sample were 22 experimental groups of mathayom sukxa four science program students in the 1996 academic year which were stratified randomly sampled from the demonstration schools under the jurisdiction of the ministry of the university affairs in Bangkok Metropolis. The collected data were analyzed by using arithmetic percentage.

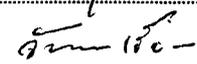
The research findings were as follows : Most students have skill in using materials and equipments, involving skills with skill in using materials and equipments, chemical substance skill, science instrumental instoration skill, experimental process skill and instrumental application skill. They had these skills in chemical laboratory experiment in all 4 aspects which were : proficiency, fluency, safety in experimenting and orderliness. Exceptionally in experimental process skill, most students lack of fluency.

ภาควิชา.....มัธยมศึกษา.....

สาขาวิชา.....การศึกษาวิทยาศาสตร์.....

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