

Thesis Title Relationship between Science Knowledge and Manipulative Skills of Lower Secondary School Students in Utilization of Science Instruments in Conducting Science Experiments

Author Mr.Kongsak Wattanachod

M.Ed. Science Education

Examining Committee

Assoc.Prof.Pob	Laohapaibul	Chairman
Assist.Prof.Sawan	Onnark	Member
Prof.Suwat	Niyomkar	Member
Assist.Prof.Chalong	Intasian	Member

Abstract

This research was designed to examine manipulative skills related to the use of science experiment instruments and relationship between knowledge and understanding as regards such use and manipulative skills of Lower Secondary School Students during the 1992 academic year. The study random sampling comprised 100 students of Thern Viddhaya School Lampang Province, the sample size of the confident level of 95 %, Research instruments were a Science Experiment Instruments Usage Knowledge and Understanding Test and a Science Experiment Instruments Usage Skills Observation Form.

Research findings were as follows :

1. Students (62.18 %) were found to possess on an average a fair degree of knowledge and understanding as regards the use of science experiment instruments. At the same time, their usage skills were on an average found to be primarily good. (73.8 %)

2. As regards the relationship between knowledge and understanding and manipulative skills it was discovered that it was at the medium level. However, such relationship was found ($r = 0.33$) to be significant at the 0.01 level.