

Thesis Title Problems and Needs for Enhancing Competency in  
Teaching Mathematics of Teachers in Secondary Schools,  
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#### ABSTRACT

The purpose of this study was to investigate mathematics teachers' problems and needs for enhancing competency in teaching mathematics in secondary schools, Nakhon Pathom Province. The subjects used in the study were 138 mathematics teachers from 27 secondary schools. Data were collected by a questionnaire which designed to elicit the teachers' status, problems and needs for enhancing competency in teaching mathematics. These data were analysed by percentage, mean, and standard deviation.

The results of the study were summarized as follows :

1. Problems in teaching mathematics. The teachers reported that their problems in curriculum were at a moderate level. The order of their problems, from high to low, was the structure of curriculum, list of courses in the curriculum, curriculum manuals and materials, and evaluation. The respondents as a whole felt that the problems concerning the teachers themselves were at a moderate level. Further analysis revealed that workloads was at a high level, while

problems on morale, teaching and learning management were at a moderate level. The problem related to mathematics contents was rated at a low level. Concerning students' problems, the teachers were rated at a high level for all areas. The order of the problems, from high to low, was learning strategies, background knowledge, field and attitudes toward mathematics. In the analysis of the problems concerning facilities for teaching mathematics, it was found at a moderate level. The order of the problems was learning environments, coordinating of various departments in the school, and school administrators.

2. Needs for enhancing competency in teaching mathematics. It was found that teachers expressed their needs in advanced mathematics content and classroom management at a high level. Other needs were remedial teaching, psychology for teaching, teaching activities, and teaching preparation. In the aspect of teaching materials, the teachers expressed their needs at a high level about producing and using the materials. Again, the teachers' needs on testing and evaluation which included evaluation of learning and constructing test items were also found at a high level.

The teachers suggested that every problem concerning mathematics teaching should be solved. The curriculum should be well designed with the consideration of content continuity and relevancy in all levels. The mathematics teachers should bear a reasonable teaching-work load and should not have heavy burdens for other duties. The students should be well motivated by establishing good academic atmosphere for studying mathematics, which would help change the students' attitude that mathematics is a difficult subject.

As for the needs for enhancing competency in teaching mathematics, mathematics teachers should be encouraged to gain more knowledge and experience by participating in mathematics conferences or seminars, or having chances for furthuring their studies in the mathematics field.