

## C140435 : MAJOR MEASUREMENT AND EVALUATION IN EDUCATION

KEY WORD: FORMATIVE TESTING FREQUENCIES / MATHEMATICS RETENTION

SUPAPORN PONGPINYO-O-PAS : THE EFFECTS OF FORMATIVE  
TESTING FREQUENCIES ON MATHEMATICS RETENTION OF STUDENTS IN  
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The purpose of this research was to study the effects of formative testing frequency on mathematics retention of students in Mathayom Suksa I. The subjects of this research were 168 Mathayom Suksa I students at Phichai School, Uttaradit. The subjects were divided into four groups (forty-two students in each). Each group comprised of students whose mathematics background were high, moderate, and low. The first experimental group took a formative test at the end of every week, the second at the end of every two-week, the third at the end of every three-week. The control group did not take any formative test. The instruments of the research were three formative tests and two summative tests related to Math 101. Ony-way analysis of variance, t-test, and two-way analysis of variance were used to analyze the collected data.

The findings of the research were as follows:

1. The mathematics retention of the students receiving formative tests was significantly higher than those not receiving formative tests at .05 level.
2. The mathematics retention of the students taking formative tests with high frequency was significantly higher than those taking formative tests with lower frequency at the .05 level.
3. The mathematics retention of the students of the high mathematics background group was significantly higher than those of the moderate and low mathematics background groups, respectively.
4. There was no significant interaction between the level of students' mathematics background and the formative testing frequency on mathematics retention.