

THE LEVEL OF CHEMICAL LITERACY AND SELF-EFFICACY ON TEACHING 'RATE OF REACTION' TOPIC: A CROSS-SECTIONAL STUDY AT PROSPECTIVE AND TEACHER OF CHEMISTRY

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ABSTRACT

This study aimed to: (1) analyzed the chemical literacy of pre-service teachers and chemistry teachers; (2) compare the chemical literacy of pre-service teachers and chemistry teachers; (3) analyzed the chemistry teaching self-efficacy of teachers and pre-service teachers; (4) compare the chemistry teaching self-efficacy of pre-service teachers and chemistry teachers; and (5) analyzed the relationship between chemical literacy and chemistry teaching self-efficacy on the rate of reaction topic.

This study was designed as a cross-sectional with survey method. Each sample group was taken as many as 30 undergraduate students, 33 graduate students, and 28 chemistry students so that the total number of samples used was 91. The sampling technique is done by convenience sampling. Chemical literacy data were collected through chemical literacy test on the rate of reaction topic, while chemistry teaching self-efficacy data were collected through a questionnaire. One-way Analysis of variance (One-way Anova) technique is performed to compare the chemical literacy between pre-service teachers and chemistry teachers and to compare chemistry teaching self-efficacy between pre-service teachers and chemistry teachers. Analysis of the relationship between the chemical literacy and chemistry teaching self-efficacy of pre-service teachers and chemistry teachers was done using Pearson Correlation analysis techniques. The profile of chemical literacy and chemistry teaching self-efficacy were analyzed descriptively quantitatively.

The findings revealed that: (1) the teacher's chemical literacy profile was better than pre-service teachers; (2) the chemical literacy in pre-service teachers and chemistry teachers was significantly different; (3) the teacher's chemistry teaching self-efficacy profile was better than pre-service teachers; (4) the self-efficacy in pre-service teachers and chemistry teachers was significantly different; and (5) revealed a positive relationship between the chemical literacy and chemistry teaching self-efficacy.

Kata Kunci: *chemical literacy, chemistry teaching self-efficacy, cross-sectional, rate of reaction topic*