

Relationship Between Reading Comprehension and Achievement in Science Among Grade Eleven Bilingual Students in a Secondary School, Thailand

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Abstract : The main aims of this research were to describe, in co-relational terms, the relationship, if any, between reading comprehension and academic achievement in science studied at the secondary level and, secondly, to find out possible trends in gender differences, such as whether boys would perform better than girls or vice versa. This research employed a quantitative design. Two kinds of instruments were employed: the Oxford Online Placement Test and the Local Assessment System Test. The Oxford Online Placement Test assesses students' English level quickly and easily. The results of these tests were subjected to statistical analysis using a special statistical software called SPSS. Statistical tools such as mean, standard deviation, percentages, frequencies, t-tests, and Pearson's coefficient of correlation were used for the analysis of the results. Results of the t-test showed that the means are significantly different. Calculating the p-value revealed that the results were extremely statistically significant at $p < .05$. The value of r (Pearson correlation coefficient) was 0.2868. Although technically there is a positive correlation, the relationship between the variables is only weak (the closer the value is to zero, the weaker the relationship). However, in conclusion, calculations from the t-test using SPSS revealed that the results were statistically significant at $p < .05$, confirming a relationship between the two variables, and high scores in reading will give rise to slightly high scores in science. The research also revealed that having a high score in reading comprehension doesn't necessarily mean having a high score in science or vice versa. Female subjects performed much better than male subjects in both tests, which is in line with the literature reviewed for this research.

Keywords : achievement in science, achievement in English, and bilingual students, relationship

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