# RELATIONSHIP BREAKFAST HOUSING, EATING AND NUTRITION STATUS (HEMOGLOBIN CONTENT) ON STUDENT LEARNING CONCENTRATION IN SMA MUHAMMADIYAH 3 JEMBER

**Wachid Budhi Santoso**
Clinical Nutrition Study Program
Department of Health

## ABSTRACT

The purpose of this study was to determine the relationship of breakfast habits to the concentration of student learning, to determine the relationship of eating patterns to the student's learning concentration, to determine the relationship of hemoglobin concentration to student learning concentration. This research uses analytic survey method with cross sectional design, the place of this research in SMA Muhammadiyah 3 Jember. Data were collected using questionnaire, semi quantitative FFQ, and measurement of hemoglobin level using hemoglobinometer measuring instrument. The subjects of the study were students and students of class X, XI, and XII which were determined using random sampling method with the number of subjects of 31 subjects. Data analysis using univariate analysis and correlation analysis using SPSS 16 for Windows program.

The results of the analysis were obtained from 31 subjects which included the always breakfast category, 22 subjects (71%), and the category never had breakfast of 9 subjects (29%). A total of 31 subjects 13 subjects (43%), who had an appropriate diet and who had an inappropriate diet were 18 subjects (58%). A total of 31 subjects classified as normal Hb were 24 subjects (77%), and those with low Hb or anemia were 7 subjects (23%). The result of the analysis also shows that there is a correlation between breakfast habits with the level of study concentration with significance level of p value (0.001) $\alpha$ (0,01) and correlation of 0,565 (strong intreptation). There is an association of diet to study concentration level with significance level of p value (0,011) $\alpha$ (0,05) and correlation 0,452 (strong intreptation). There is a correlation of hemoglobin level to the level of study concentration with significance level p value (0,000) $\alpha$ (0,01) and correlation equal to 0,738 (very strong intrepperation).

Keywords: Breakfast habits, diet, hemoglobin level, level of learning concentration.