

The Study of the Relationship Between Multivariable Causal Reasoning Ability and Argumentation Ability of the 10th Graders

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This study aimed to understand the relationship between multivariable causal reasoning ability and argumentation ability of the 10th grade students. The research method of this study was questionnaire survey. "The ability of causal reasoning and argumentation questionnaire" was used to detect students' multivariable causal reasoning ability and argumentation ability. There were 165 subjects who participated in this survey. Data analysis showed that: (1) In the aspect of multivariable causal reasoning, students' performance in factor-search was better than reason-state. (2) In the aspect of argumentation, students' performance in rebuttal was weaker than other factors. (3) Multivariable causal reasoning performance and argumentation performance demonstrate a high correlation ($r=.782, p<.05$).

Keywords: *multiple variables, causal reasoning ability, argumentation ability*

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