The Validity of Kolb Learning Styles and Neo-Piagetian Developmental Levels in College Biology

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Abstract: The Kolb learning styles and neo-Piagetian development levels of 366 students enrolled in a non-majors college biology course were assessed. Students then completed a one-semester lecture/lab course within one of two instructional methods - inquiry or expository. The predicted interaction between Kolb's thinking/feeling learning dimension and instructional method was not found. Instead, as predicted by neo-Piagetian developmental theory, the thinking/feeling dimension and developmental level both correlated positively with course achievement under both instructional methods. Also as predicted by developmental theory, a significant correlation between the Kolb thinking/feeling learning dimension and developmental level was found. Thus, the value of attempting to match instructional method with Kolb's thinking and feeling learning styles, which may in fact reflect differences in developmental level, is questioned. On the other hand, the finding that developmental level did predict success within both instructional approaches supports neo-Piagetian theory and implies that instruction should be designed to improve reasoning abilities. [ABSTRACT FROM AUTHOR]; (AN 5692029)