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Predicting academic achievement of college computer science majors.

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This study investigated whether student academic achievement in college computer science programs in Taiwan could be predicted by factors reported to be effective in U.S. studies. Subjects were 940 college students enrolled in five universities offering computer science programs. A correlation study was conducted and prediction models were established. The predictive powers of college entrance examination (CEE) scores in relation to subsequent college performance appeared to be limited. Overall high school achievement and math course averages were identified as effective performance predictors. The close relationship between performance in introductory computer science courses and performance in complete computer science programs was validated. Significant linear prediction models with limited predictive powers were generated for overall performance but not for introductory computer science course performance. Model predictive powers were significantly improved when performance in introductory computer science courses was included in the models. No significant gender differences were found for CEE performance. However, female subjects outperformed male counterparts in course performance at both the high school and college levels. (Authors' abstract)

Classification: Q75