

Instructional Strategies in Science Classrooms of Specialized Secondary Schools for the Gifted  
By Donna Poland (2003)

This study examined the extent to which science teachers in Academic Year Governor's Schools were adhering to the national standards for suggested science instruction and providing an appropriate learning environment for gifted learners.

The study asked 13 directors, 54 instructors of advanced science courses, and 1190 students of advanced science courses in 13 Academic Year Governor's Schools in Virginia to respond to researcher-developed surveys and to participate in classroom observations. The surveys and classroom observations collected demographic data as well as instructors' and students' perceptions of the use of various instructional strategies related to national science reform and gifted education recommendations. Chi-square analyses were used to ascertain significant differences between instructors' and students' perceptions.

Findings indicated that instructors of advanced science classes in secondary schools for the gifted are implementing nationally recognized gifted education and science education instructional strategies with less frequency than desired. Both students and instructors concur that these strategies are being implemented in the classroom setting, and both concur as to the frequency with which the implementation occurs. There was no significant difference between instructors' and students' perceptions of the frequency of implementation of instructional strategies. Unfortunately, there was not a single strategy that students and teachers felt was being implemented on a weekly or daily basis across 90% of the sampled classrooms. Staff development in gifted education was found to be minimal as an ongoing practice. While this study offers some insights into the frequency of strategy usage, the study needs more classroom observations to support findings; an area of needed future research. While this study was conducted at the secondary level, research into instructional practices at the middle school and elementary school gifted science classroom settings would be appropriate and warranted.