Perception, Attitude and Instructional Preferences on Physics in High School Students: An Exploration in an International Setting

MINI NARAYANAN, ABDUL GAFOOR, Department of Education, Calicut University, India — Questionnaire survey explored perception, attitude and instructional preferences with respect to gender and nationality in high school students of India and USA, a sample of 1101 Indian and 458 US students. Descriptive Statistics techniques were adopted for analysis. Male and female students in USA were at the high and low ends of the spectrum, respectively, in perception and attitude. Preference on instructional strategies was found to be independent of nationality, exposed strategies, opting science, class size and facilities. Responses from both countries indicate preference for an integrated instructional strategy that has strong teacher involvement in a student-centered framework. A thoughtful and properly designed instructional strategy could provide sufficient elements in modifying students’ epistemological beliefs. Understanding the nature and process of physics along with a better learning outcome is usually not possible by administering student-centered or teacher-centered strategies alone in their purest form. This study provides adequate support in obtaining two equally significant but contrasting goals in Physics Education Research, to gain conceptual development with increased interest and attainment in learners, through integration.

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