

Abstract Submitted
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**Integration of Instructional Strategies in High School Physics:
An Exploration on Perspectives of Students and Teachers from India
and USA** MINI NARAYANAN, KUNNATHODI ABDUL GAFOOR, University
of Calicut — An attempt is made to establish a theory on integrating instructional
strategies and developing a positive attitude toward Physics among high school stu-
dents. A structured interview was conducted in the form of questionnaire among
the students and teachers of Physics among 89 randomly selected high schools in
India and USA to verify the proposed theory. Perception, preference, and pros and
cons with traditional as well as research-based instructional strategies have been an-
alyzed. Statistical analyses reveal that there is a significant difference on preferred
instructional strategies between students and teachers regardless of the nationality
or exposed strategies. Students prefer student-centered instructional strategies inte-
grated with strong teacher participation whereas the teachers prefer teacher-centered
or student-centered strategies in their purest forms. We make an argument that a
properly designed instructional strategy based on students' epistemological beliefs in
learning Physics could benefit them in modifying their attitudes toward the subject.
In conclusion, the study supports the most significant goals in Physics Education
Research: Achievement, Conceptual Understanding and Positive Attitude toward
learning Physics.

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