

MISCONCEPTIONS IN OPTICS IN RELATION TO TEACHING STRATEGIES AMONG
STANDARD X STUDENTS

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Year of the study : 2013

OBJECTIVE

The objective of the study is to find out the extent of misconceptions in optics and to examine whether the extents of misconceptions in optics are associated with teaching strategies adopted by teachers.

METHODOLOGY

Method used : Survey method

Sample : 600 10th Std students

Tool : Test of concept attainment in optics , Questionnaire on teaching strategies in physics classroom

Statistical Techniques : Percentage, Percentiles, t-test , Chi-square test

RESULT

In general, students have misconceptions in all the content areas of optics especially in 'power of lenses', properties of light, and fixes of lenses. Out of the 11 major concepts in optics students have high level of misconceptions in 'power of lenses'. Regarding the misconceptions in optics among boys, they possess more misconceptions than girls. An important finding of the study is that teachers are using same teaching strategy for teaching all the major concepts of optics.

KEY TERMS : Misconceptions in optics, Teaching strategy