

Abstract

This study attempts to explore the relationship between senior secondary school physics problem solving and transfer of learning. It aims to understand the influence of students' cognitive structure level upon their transfer of learning in solving physics problems. The topic has both theoretical and practical significance in the teaching of contemporary senior secondary school physics.

For a long time, it is a difficult challenge for senior secondary school students to understand physics concepts and to use these concepts to solve problems.

After a review of literature related to transfer of learning, the researcher utilized the concepts about transfer of learning and designed two sets of physics problems. With an experiment, the researcher tested the relationship between two variables, "cognitive structure level" and "transfer of learning ability", in solving physics problems of different difficulties. The test results indicate that there is a significant positive correlation between these two variables. It is concluded that to improve physics teaching effectiveness in senior secondary schools teachers have to raise students' cognitive structure level and promote the occurrence of transfer of learning. Teachers can use transfer of learning concepts to design relevant physics problems. This will greatly improve students' problem solving ability when they learn physics.