

Assessing Students' Critical Thinking and Physics Problem-Solving Skills in Secondary Schools

ABSTRACT

Critical thinking and problem-solving skills are some of the most crucial elements of 21st Century Skills. Very few studies have been conducted to specifically assess critical thinking and physics problem-solving skills among secondary school students. Therefore, a survey research was conducted on 66 Form Four science stream students from secondary schools in the Federal Territory of Labuan, Malaysia. Critical Thinking Assessment and Physics Problem Solving Ability Test instruments were used to measure critical thinking and problem-solving skill in Physics respectively. Overall, the level of critical thinking and physics problem-solving skills were moderate. The finding also indicated that there was a significant difference in critical thinking and Physics problem-solving skill based on achievement of the students. Meanwhile, the relationship between critical thinking and problem-solving skill in Physics was found to be positive and strongly significant. The findings from this study implied that more actions need to be taken to improve students' critical thinking and problem-solving skill in Physics.