

Measurement of physics problem-solving skills in female and male students by PhysTeProSS

ABSTRACT

Problem-solving skills in physics (PSSP) are essential in 21st-century life, and it is no exception for senior high school students; therefore, assessment has to be done in the senior high school. The study aimed at (1) describing students' PSSP and (2) comparing the PSSP between female and male students. A total of 466 students were selected, 290 female and 176 male, as research participants selected by stratified random sampling from low, moderate, and high scores of the national physics examination. To measure the students' problem-solving skill levels, the PhysTeProSS test was administered. The data were polytomous in four categories and were analyzed by the partial credit model (PCM). The results showed that the students' level of PSSP was dominantly at the moderate type (48.28%) and the high and very high level are at 27.43 %. In other words, female students showed a higher level of PSSP than male students.

Keyword: Education assessment; Problem-solving skills; Physics education