

The level of solving physics problems among 10th graders and it's relationship to their lateral thinking

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Abstract:

The purpose of this study was to measure the level of problem solving and lateral thinking among the tenth grade students in Jericho and Al-Aghwar and measure their relationship. The researcher used the descriptive method (the association method), where the study was conducted on a random cluster sample of students of public schools (269 male and female students), representing 42% of the study population. I prepared two tests to measure the level of physical problems and the second to measure the level of lateral thinking.

The results of the study showed that there was a weakness among students in the levels of solving the physical problems in general came at a percentage of (28.2% .. especially the untreated problems. There are no statistically significant differences in the level of physical problem solving attributed to the academic orientation variable except for the problem oriented domain. With the presence of statistically significant differences in favor of females, especially the area of the problem is not directed.

The results showed that there was a weakness in the levels of lateral thinking in the students came by 25.3%. The order of the fields in succession: the field of formation of perception followed by the field of conceptual generation, the field of generation of ideas and the field of generating alternatives. There are no statistically significant differences in the level of lateral thinking due to the academic orientation variable, with differences due to the gender variable, as well as the level of conceptual generation where the differences were in favor of females.

The results showed a positive correlation between the scores of the students' results in the physical problem solving test and their scores on the lateral thinking test in the tenth grade students in the public schools in Jericho governorate and Al-Aghwar..

The researcher recommended that the Palestinian curriculum should focus on linking the educational material to the reality of students and holding intensive courses for teachers on problem solving and developing lateral thinking among students.