

## ABSTRACT

The purpose of this study was to investigate the effectiveness of "Think-Ink-Pair -Share" strategy on students' achievement and their level of engagement in scientific tasks.

The sample of the study consisted of (124) 8<sup>th</sup> graders; 57 males and 67 females, who were randomly selected from two UNRWA schools in Nablus area (Askar Basic Boys' School and Askar Basic Girls School). Then the participants were randomly grouped into two male groups and two female groups as well.

Afterwards, every two groups were randomly treated as follows: one as a control group who received traditional teaching of the atomic elements and atomic groups unit while the other was treated as an experimental group who was taught through the "Think Ink Pair Share" strategy. To achieve the aims of the study, lesson plans were prepared for both the control and experimental groups.

For the research purposes, the researcher designed an achievement test to assess students' learning of the unit, and also used the direct observation and the interview techniques to assess students' engagement in learning tasks.

To answer the questions of the study, the researcher used (2-Way ANOVA) test to analyze the results of the achievement test on the significance level ( $\alpha \leq 0.05$ ). The results of statistical analyses were as follows:

- 1- There were statistical significant differences between the mean of both the experimental and the control groups test. The difference

was for the benefit of the experimental group who received teaching through "Think Ink Pair Share".

- 2- There were no statistical significant differences at ( $\alpha \leq 0.05$ ) between the groups of the study due to the gender variable.
- 3- There were no statistical significant differences at ( $\alpha \leq 0.05$ ) between the groups of the study attributed to interaction between gender and teaching method.

The results of the study using observations and interviews showed a greater degree of engagement of the students who were taught by the "Think Ink Pair Share" strategy in learning tasks compared to students of the control group who studied using traditional way.

In the light of these results, the researcher recommended the importance of using the method of Think Ink Pair Share in teaching science. He also suggested conducting similar studies for other subjects and other levels of learners. Finally, he called for training programs for teachers of science to help them apply Think Ink Pair Share strategy in teaching science.