



## Improving Transfer of Learning through Graphical Representation

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**Abstract:** The use of graphs as reasoning tool in transferring content knowledge of one area to another through source processing was explored in this study. The study investigated the parameters under which beginning physics students use graphs as a tool in mediating a content area (mathematics) into another (physics). One hundred fifty-seven students were given kinematics problems. One set of problems required the active use graphical representation, the other passive graphical representation. To control for transfer effect of established knowledge, pure text problems were also administered. ANOVA was used to determine if there is a significant difference in the mean scores of the students in the three activities. Furthermore, students were given achievement tests and graphing skills test. The scores from these two tests were correlated. In general, the results showed that active representation of graph is a powerful tool in enhancing problem solving skills of students.

**Keywords:** source processing; graphing skills; active graphical representation