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The Impact of the Use of Technology as a Platform for Associations-Generating Techniques on Student Science Achievement

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The aim of the current study was to investigate the effectiveness of using technology as a platform for hosting instructional techniques that were designed to encourage students to make different types of associations when learning science. Our study included two experimental groups and one control group. The first experimental group used association-generating techniques. In the second group, technology was used as a platform to deliver these techniques. The control group used conventional teaching methods. The total number of participants was 197 grade eight students. A science achievement test was administered to the three groups three times: before the beginning of the study as a pre-test, at the conclusion of the study as a post-test, and six weeks after the study ended. The technology-based experimental group outperformed the control group at the conclusion of the study (post-test). However, there was no significant difference between the technology group and the control group on the test six weeks after the study's conclusion. On the other hand, the first experimental group (without technology) outperformed the control group on that test. These results suggest the need for further research on whether the impact of the use of technology lasts long enough to be considered a "real impact" or if this impact is "temporary," perhaps resulting from the novelty effect of the use of this or that type of technology.

Keywords: *associations-generating techniques; educational technology; postponed retention; science achievement Please indicate from 2 to 6 keywords;*

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