The Effect of Herrmann Whole Brain Teaching Method on Students' Understanding of Simple Electric Circuits

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Abstract

The purpose of this study was to investigate the effect of Herrmann Whole Brain Teaching Method over conventional teaching method on eight graders in their understanding of simple electric circuits in Jordan. Participants (N= 273 students; M=139, F=134) were randomly selected from Bani Kenanah region-North of Jordan and randomly assigned to both teaching methods (Hermann Whole Brain Teaching Method =135, Conventional Teaching Method =138). A multiple choice concept test was developed measuring misconceptions commonly held by eight grade students on simple electric circuits. The results showed that Hermann Whole Brain Teaching Method was more successful than the conventional teaching method in fostering students' understanding of simple electric circuits. However, there was no significant differences attributed to gender or interaction between methods and gender on student' understanding of simple electric circuits. The results suggest that curriculum developers and textbook authors are advised to take into account students' learning styles and characteristics of brain parts as illustrated by Hermann Whole Brain Model in the curricula and textbooks they develop. Teachers are also recommended to focus on individual differences among students and respond to their learning styles during science lessons.

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All students were administered Electric Circuits Concepts Test (DIRECT), pretest and after completing 3 weeks treatment, all students received the DIRECT again as a post-test. Analysis of FRYDULDQFH ZDV XVHG 7KH UHVXOWV IRXQG WKDW WKH VWXGHQWV¶ XQGHUVWDQGLQJ RI GLUHFW current and electric circuits in the CCS group was significantly better than the TCS group understands of the same concepts. The present study, therefore, sought to investigate the effects of Herrmann Whole Brain Teaching Method (HWBTM) on student's understanding of the electrical circuits. Herrmann's Model, which is systematic and inclusive, theorizes that student's preferable learning style is inconstant that can be changed and developed. Whole-brain teaching is an instructional approach derived from neurolinguistic descriptions of the functions of the brain's left and right hemispheres. Basic Elements. Neurolinguistic findings about the brain's language functions show that in the integrated brain, the functions of one hemisphere are immediately available to the other, producing a more balanced use of language. Whole-brain teaching emphasizes active learning, in which the learner makes connections that tap both hemispheres. Another aspect of whole-brain teaching is managing the emotional climate, to reduce the "downshifting"–or The Effect of Whole Brain Teaching on the Academic Outcomes of African-American Elementary Male Students. Wendy VanHosen, Assistant Principal, Suffolk, Virginia. Doctoral candidate, The College of William and Mary. The often faltering academic achievement of African-American male students is a concern of many school districts throughout the nation and it has plagued public school education for decades. The National Assessment of Education Progress (NAEP) assessments given in the early 1970's provided the first national research based evidence of a substantial gap in reading and math test score In these methods in teaching, teachers split the whole class into small groups and give them a topic of discussion so that the students can come up with ideas on the subject or solutions to a problem within a short period of time. This method helps to stimulate discussion and to get student feedback. 6. Demonstration. These assignments improve students' understanding of the lessons taught. Also, the application level of assignments will further enhance their learning. Students can use this option to analyze their understanding of the subject. Teachers can also use these methods of teaching to assess the students' understanding about the lessons covered during class. 27. Home tests. This is one of the common methods of teaching adopted for students of any class.