DEVELOPING AN EDUCATIONAL RESOURCE FOR INCREASING LONG-TERM RETENTION OF CEREBELLAR CIRCUITRY AND PATHWAYS IMPLEMENTING THE PRINCIPLES OF ENDURING UNDERSTANDING

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Full PDF available after 12/1/2012

Keywords: medical neuroscience; cerebellum; enduring understanding; medical illustration; interactive program

This thesis focuses on implementing the educational model of enduring understanding as it applies to the visual arts and neuroscience. The thesis was designed around developing an interactive web-based flash program intended to aid in medical students‘ retention of cerebellar circuitry at specific instances in their medical education. It focused on the visual and textual organization laid out within the principles of enduring understanding. By using the first two facets of enduring understanding, explanation and interpretation, the program was designed to teach medical students about the cerebellum‘s structure and function. Both facets provided a framework for the organization of the text and design of the illustrations, two and three-dimensional animations and questions sections. Testing was performed on medical students at varying levels in their medical education for gaps in knowledge and usefulness. These groups included first, second, and fourth year medical students, as well as residents. Further research will test the programs effect on students‘ efficiency and aptitude. Such testing will demand medical students‘ involvement over four years of schooling to determine the programs full efficacy.