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Jerry C. Obiekwe* (Accessx@uakron.edu), P.O. Box 411, Orrville, OH 44667. *Assessing the Effects of Application of Cognitive Load Theory in the Teaching and Learning of Undergraduate Mathematics.*

Cognitive load essentially relates to how much cognitive activity the working memory can hold; bearing in mind that the working memory has limited space or capacity. Before information can be stored in the long term memory, it must first have a meaningful interaction with the working memory. Overloading of the working memory, which often times happens in the design of instructional materials, can slow the learning process down, particularly in domain specific subject like mathematics. Research in cognitive science has shown that by reducing the cognitive load, the learning process can be facilitated. Therefore, as mathematics educators, it is important to be cognizant of this concept when designing instructional materials that way providing a fertile ground for learning to germinate. This paper investigated the effects of reducing cognitive load in the teaching and learning of undergraduate mathematics. The results and its implications will be discussed. (Received September 12, 2010)