

Adult Learners' Conceptualization of Thinking

Natalie Manbeck, Ed.D.

A pervasive assumption about adult learners is that they have attained a level of abstract thinking that enables them to comprehend complex ideas and situations which assists them in acquiring critical thinking skills. Because developing critical thinking skills is an essential component of adult learning, it would seem important to determine if this assumption is correct. The following study was conducted in an attempt to understand an adult learner's level of abstract thinking by asking how he or she conceptualizes thinking. The choice to use metacognition as a way of determining the level of abstraction was made because it is a characteristic of both critical thinking and of Piaget's formal operations stage. It was expected that adults would be more abstract in their depiction and explanation of thinking.

As part of a classroom assignment, 200 American and 50 Brazilian undergraduate students were given a simple one page questionnaire and asked to respond both graphically and verbally to the question "What happens in your head when you think?" The American students came from a small university in the Chicago area and were divided into traditional (regular 10-week term psychology classes) and non-traditional (an accelerated, degree completion program) student groups. The Brazilian students came from a small liberal arts college in southern Brazil. The data collected was qualitatively analyzed based on frequency of use to determine what categories might emerge from these representations of thinking.

The categories that emerged were: the brain or neurons; some type of mechanical or electrical energy; a series of concrete items, files or lists; a depiction of information being processed; and some combination of some or all of these categories. Overall, almost half of the 250 students used the category of concrete items, files or lists to explain their thinking, with some form of information processing as the next most frequently used category. The brain and energy categories were essentially equal in their use with the combination category used only minimally. Of the 200 American students, no significant difference was found between traditional and non-traditional students. However, slightly more traditional students described thinking through the depiction of brain processes. When comparing the two countries, the categories were essentially the same, with Brazilians using slightly more depictions of the brain and fewer examples of information processing than their American counterparts. In comparing the genders, both genders used the concrete items category most frequently. There was a slight difference in the second category with males using more mechanical or electrical energy and females using more information processing. Since the most frequently used category for all students involved concrete items, this would suggest that in conceptualizing thinking these adult learners are still operating on a more concrete level. If at least half of the adult students are operating on a more concrete level, then it becomes important for adult educators to develop methods of presenting abstract ideas and theories in a more concrete manner.

Natalie Manbeck, Associate Professor, Applied Behavioral Sciences Program, National-Louis University, 5202 Old Orchard Road, Ste. 300, Skokie, IL 60077. nmanbeck@nl.edu.

Presented at the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, University of Missouri-St. Louis, St. Louis, MO, October 4-6, 2006.