1067-V1-485 **Jerry C. Obiekwe*** (Accessx@uakron.edu), P.O. Box 411, Orrville, OH. *Mathematical Word Problems: An Instructional Approach that evolved from its Cognitive Complexities.*

Word problems are probably one of the most challenging topics in college algebra for a great many students. Consequently, the instructional strategy that is employed in teaching this topic becomes paramount in making the subject matter more understandable to students. According to Mayer, Larkin & Kadane (1984), the solution to mathematical word problems have essentially four phases, and each phase has certain knowledge requirement. Failure to take a mathematical word problem from start to a correct solution can be attributed to lack of appropriate knowledge requirement of any one of those phases. Perhaps the application of this knowledge from cognitive psychology regarding mathematical problem solving combined with psychometric methods could help to address some of these issues. Cognitive psychology provides the cognitive model for the problem solving, while the psychometric methods address how to detect and control the sources of the difficulties in solving math problems. This study will first discuss the validation procedure of the four phases of mathematical word problems and secondly its implications to teaching and learning of this subject. (Received September 06, 2010)