The presence of mathematics in the lives of humans is undeniable. It has accompanied the history of mankind throughout the ages. Math is a universal language that goes beyond the barriers of time and space. However, the poor performance of many students is observed on issues related to mathematics, there is an increasing difficulty in this discipline. Many people believe that these difficulties are due to the fact that mathematics involves logical reasoning. Others attribute these difficulties to the language used in mathematics, arguing that it is difficult to understand. The main objective of this work is to verify the influence of language on the performance of a group of students. To achieve this goal, an empirical analysis of the performance of students of a municipal school located in the city of Rio de Janeiro, Brazil, was made in two issues resolution: one involving only logical reasoning and Portuguese and another involving only logical reasoning and mathematics language. The objective was not to test "content", but the influence of language on students’ thinking. Thus, the questions were designed so that the fact that the student remember or not the "content" should not influence the resolution of the issues. In the end, the answers were analyzed and compared. (Received August 18, 2015)