Cazorla, I.M. (2002). *A relação entre a habilidade viso-pictórica e o domínio de conceitos estatísticos na leitura de gráficos* (The relationships between visual-pictoric ability and understanding of statistical concepts in graph reading). PhD University of Campinas, Brazil. Supervisor: Márcia Regina Ferreira de Brito.

This thesis aims to analyze factors that determine success when reading statistical graphics, based on Krutetskii's mathematical ability theory and Pinker's graphical comprehension theory. 814 undergraduate students attending Statistical courses were investigated. Six instruments were used: a questionnaire; two attitudes scale towards Statistics and Mathematics; and mathematical, statistics, and verbal aptitude tests. Findings show that success when reading statistical graphics lie on the understanding of the statistical concept, level of knowledge of graphics, visual-pictorial ability, and gender. Male students show more positive attitudes, and higher scores at cognitive tests, except at the verbal aptitude test. Instruction also shows to play a significant role on the development of statistical and graphic abilities.