



## **Brazilian Admission Exam for the Diplomatic Career: an Application of the Principal Components Analysis**

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This study aims to analyze the Brazilian Diplomatic Career Admission Exam (CACD) of the Rio Branco Institute (IRBr) of five years: 2010, 2011, 2012, 2013 e 2014. The IRBr is the Brazil's diplomatic academy and organizer of the CACD, in partnership with the Center for Selection and Event Promotion of the University of Brasilia (CESPE/UnB). The CACD is one of the most grueling and selective exam of Brazil and consists of 10 writing exams divided in 4 phases until 2013 and in 3 phases in 2014. The approbation in CACD allows the candidate to ingress in the initial position of the diplomatic career (Third Secretary). The Principal Components Analysis (PCA) permits to demonstrate the relevance of each exam in the candidate final classification. In addition, the biplot of the first and second principal component provides a useful tool of data analysis and allows the visual appraisal of the influence of each exam between the candidates approved and reproved in the IRBr's entrance exam. The analysis of the CACD within the five consecutive years showed the importance of the English writing exam, followed by the Spanish and French writing exam, the Economy exam (in 2010 and 2011 only), and Brazil's History exam (in the following years).

**Keywords:** CACD; Principal Components; Biplot; R language.