

ABSTRACT

This research has analyzed the knowledge and the conceptions mobilized by students on the last grade of the Brazilian public high school, aged from 16 to 19 years old, before and after the development of projects involving elements of Descriptive Statistics. In order to investigate the statistical conceptions mobilized by them, a qualitative research (case study kind), has been conducted. That way, it has sought to answer which conceptions are mobilized by high school students in solving problems after the development of projects, used as an approach to learning concepts from Descriptive Statistics. For this purpose, through Implicative Statistical Analysis and Similarity Analysis, during methodological procedures, the previous knowledge of 86 students has been identified, based on the questionnaires filled by them before their participation in the research projects. Thus, this work has had the assistance of the technological resources offered by CHIC software – Hierarchical Classification Implicative and Cohesive. Besides that, it has been performed an analysis of the conceptions mobilized by four groups of students (two pairs and two trios) after the development of the projects, using their annotations and the recordings of their production as well as of their interactions with their respective groups' colleagues, when solving statistical problems similar to those solved in their research. With regard to knowledge, it is believed that there is still a long way for students to reach high school with a satisfactory level of statistical literacy for a better understanding of the world and full exercise of citizenship, as well as for the transition to higher education, and the implementation of the National Common Curricular Base – BNCC might help in this challenge. It was possible to identify eleven statistical conceptions mobilized by the students, some of them displaced from their domain of validity, reflecting learning difficulties, but also advances, structural failures and possible paths in the teaching and learning of Statistics in Brazil.

Keywords: Statistical Education, Conceptions, Implicative Statistical Analysis and Similarity Analysis, Projects, BNCC.