

### From everyday knowledge to stochastic knowledge

At present, citizens face daily a large amount of statistical information is recurrent use in media surveys, polls, interviews with experts, among others. In general, the use of statistical aims to ensure the reliability of the information or validate the decisions made in different political, sporting social settings. In response to these needs analysis and understanding by citizens, statistics and probability is immersed directly, or indirectly, in almost all curricula in the country, from basic to professional levels.

Historically, we see that around the fifties of the last century can be seen inserting explicit and definitive form of statistical methods in almost all engineering programs in Colombia and becomes part of the culture of citizens. This inclusion is consistent with the historical development, particularly in statistics, since this discipline was or was laying the theoretical basis for selecting random samples, designing experiments, testing hypotheses from observed data, analyze qualitative and quantitative data type and such Once the most important of all processes, allowing validation of theories. Alternately, for the meeting of different events of historical, theoretical and social, the study of probability was strengthened, and was recognized as an alternative of study for many phenomena, because this theory allowed to explain the behavior of a large number of variables and model many situations. This new concept allowed the emergence of new types of reasoning where uncertainty, chance and randomness are present, confronted the idea of deterministic thinking that in many academic areas, science defended.

Despite the consolidation of teaching stochastic, it has now been found that are still little research on how the teaching of probability and statistics in engineering schools is performed and if indeed these concepts are used by engineers when they operate as professionals or when making decisions using statistical information as citizens. Similarly, there is insufficient information from those who are responsible for statistical education at universities, forms of teaching, ways of evaluation, it is unclear to what extent the teaching proposals were developed, how the designs were structured curriculum, training spaces stochastic and how they have been transformed over time, and the reasons for such changes.

Without entering into the nature of these interactions between everyday knowledge, statistical literacy and the teaching of statistics, it is necessary to study the importance of these relationships and their influence on formal and informal education, given the importance of this type of knowledge has on decision making, sometimes unconsciously or from experience gained in the environment and in school.

Dr. Pedro Rocha Salamanca

Dra. Patricia Gallego Torres