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# Implement statistics at each step of your research

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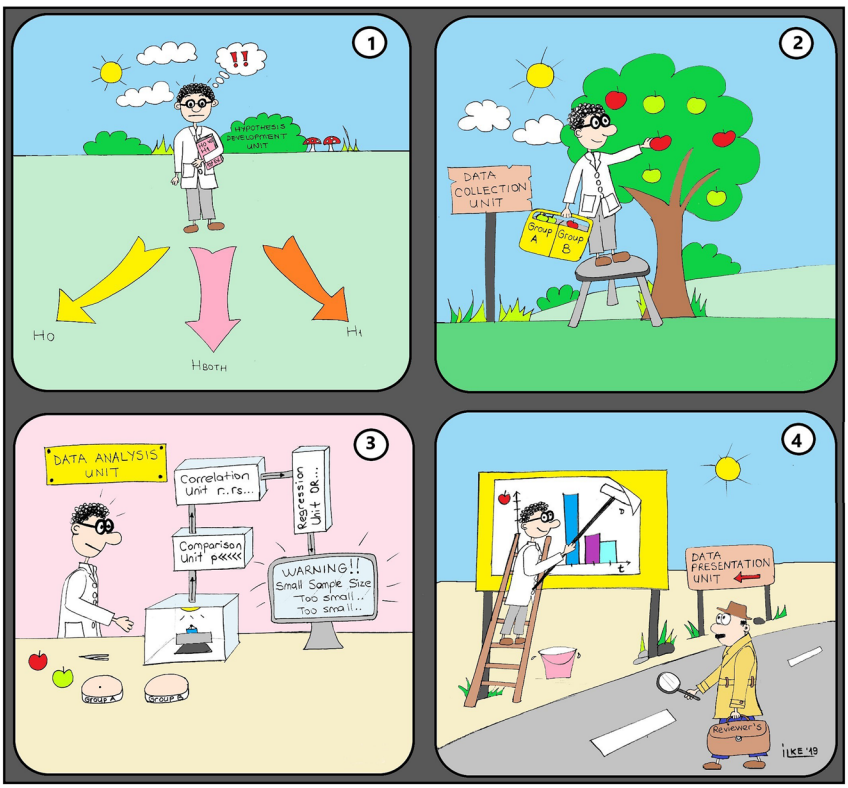
Statistics is the art of numbers. We can estimate, correlate, explore, and predict using statistics. Does it only help us to analyze the data? Of course, not! Statistics should be implemented in any research from the very beginning. It should guide us all throughout the process of researching.

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Every research begins with questioning and hypothesis production. Shall we reject the null hypothesis (H0) or its alternative (H1)? What we should do to answer this question is to test our data correctly. For an accurate testing, an appropriate sampling is crucial. There comes the estimation of the sample size and data collection of this particular sample. The third step is analyzing the data. Statistics, once again, helps us to evaluate distributional adequacy to choose appropriate statistical tests. Then, it is time to analyze, to compare, to correlate, and to obtain level of significance. Data interpretation and presentation are as much important as analyzing the data. Presentation should be accurate, specific, brief, and concise at the same time.

Most of us experience difficulties almost at every step of a research. What we need as to come over this challenging process is the "statistics" itself! The results would be reliable, correct, and explanatory in view of reassuring the implementation of statistics at each step.

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## Compliance with ethical standards

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