

# Review of: "Understanding Research Tendencies of Academic Staffs"

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First of all, the topic can be interesting. With deep research, starting with an approach to the matter in the methodological sense, the most basic quantitative techniques would have allowed one to obtain statistical inference, in order to conclude with policies at a geographical level relevant enough to deserve to be published and even more, cited. This work lacks mathematical rigor, starting with the elaboration of a survey without previous checking and control tests, to be able to collect bias-free results. The greatest need for this research is the quantitative study of how to generate a survey and the sample sizes necessary for academic interest and relevant impact.

Due to the above, and without going into more format or style details, I recommend the non-publication of this paper.

Maybe I would start with deep learning about samples:

Determination of the sample: Once the population under our study is identified, it can happen that it is so large that it implies very high economic and energy costs. This will make it necessary to select a subset of said population that, at the same time, reduces costs and allows for the generalization of results obtained. This significant subset of the population is called a sample. Determination of the sampling method: Generally, two types of samples are distinguished: probabilistic samples (those in which all individuals have a known probability of being included in the sample) and non-probabilistic samples (in which the probability of each individual to be included in the sample is not known). To select the sample, different methods or combinations of them can be used, depending on the cost and precision that you want to achieve. In general, we can say that when you want to calculate sampling errors and confidence intervals, probabilistic samples must be resorted to. When estimates do not have so much transcendence, non-probabilistic samples are used since they are cheaper. Within the probabilistic samples, we have 4 methods: simple random sampling, when all the individuals of the population have the same probability of being chosen in accordance with the laws of chance. It is about making a complete list of the population, assigning a number to each individual, and, finally, through a table of random numbers, selecting the individuals who are intended to be part of the sample. In systematic random sampling, the first individual is randomly selected, and then the rest are chosen at fixed intervals. For this, the lifting coefficient is found:  $n/N$  (being the size of the population and  $n$  the size of the sample), and it is chosen, randomly, a non-superior number of the elevation coefficient that will be the number from which the selection begins. The rest is selected by successively adding the elevation coefficient to the last index found. In stratified random sampling, the population is classified into exclusive categories, and the individuals are randomly chosen within each category that has been previously determined. It is necessary to know the fluctuations of the variance within each category and between the different categories, since within

each category the variance must be the minimum possible, and among the categories it must be the maximum. The distribution of the sample between the different categories is called the allocation of the sample and can be done in different ways: simple allocation: Each category is assigned the same number of individuals, proportional allocation: The allocation of individuals to each category is proportional to the number of individuals that compose it, and optimal allocation: The number of individuals assigned to each category is based on the standard deviation. Thus, when in a category the standard deviation is very small, it will suffice with a small sample, and when the standard deviation is high, the sample must be greater. In random sampling by conglomerates, the population is divided into conglomerates (grouped by geographical areas or other areas of interest for research), and it is randomly selected which of them will be part of the sample. Once selected, all the individuals that make up each conglomerate are taken. Non-probabilistic samples can be done in 3 ways: Casual sampling is the technique most used by television, radios, and market research companies. It is about interviewing people casually. Generally, the interviewer stands on the street and asks the people who pass near it. It is also done by phone. Intentional sampling involves the selection of typical cases of a population at the discretion of an expert. Quota sampling entails assigning each interviewer a number of interviews to be carried out with people who meet certain characteristics (for example: women between 20 and 30 years old, married).

An interesting book to learn how to make a survey:

"The Sage Handbook of Survey Methodology". [Christof Wolf, Dominique Joye, Tom E. C. Smith, Yang-Chih Fu](#)

To name a few authors in order to make a background about surveys:

"Content Validation of Needs Assessment Survey for Remote Education Initiative in Tanzania" Oriane Longerstaey, Humphrey Godwin, Raya Mussa, Alphonse Simbila, Said Kilindimo, Michael Gibbs, Breanna Lorenzen, Michael Runyon, Adeline Dozois.

"Recommendations to Align Higher Education Teaching with the UN Sustainability Goals – A Scoping Survey" Achim Buerkle, Amy O'Dell, Harveen Matharu, Linda Buerkle, Pedro Ferreira

"Impact of Demographic Profile on Sustainability Learning: A Management Education Students' Survey". Aisha Badruddin