The use of WebQDA to reconfigure a conceptual model: to operationalizing data analysis on research networks.

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1 Abstract

The need to construct and refine a conceptual model was identified in order to achieve the main objective: to build a data analysis framework, clearly structured for use in several projects but with a transversal theme (Collaboration Networks). This article focuses on the task of refining the conceptual model that structures the team’s various projects under the umbrella theme called Collaboration Networks. After the introduction, we present the methodological trajectory of the research group and the methodology for the refinement of initial conceptual model that comes from previous literature review. A software (WebQDA) was selected to support knowledge integration (bringing together the elements that make up researcher projects and think about they relate to one another); information management (creating structures to organize data and publications that reflect meaning aspects in relation to projects objectives) and interrogation (asking questions about data). This software also facilitated the collaborative work of our dispersed research team by providing a collaborative and ubiquitously distributed (web-based) environment, simple and intuitive to use, suitable to integrate the various projects that the team is developing.

From a reflection on the closure of two research projects on the theme "Evaluation and Collaboration Networks" and other associated projects, we tried to integrate the knowledge acquired by refining the conceptual model that transversally supported it. Starting from the literature review, empirical work was developed by performing interviews with researchers. These subjects were selected in a researcher’s universe of excellence and leadership of research groups. Prior to the interviews, we build the co-authoring network of each of these researchers. This network - a graph - was presented at the beginning of the interview and served as a starting point and a framework for the subject to be explored. The interviews were analyzed from categories that integrated the interview questions. From the initial analysis, other categories emerged and the conceptual model was reconstructed through the interaction of the various researchers associated with the research team, the results obtained and the preparation of several publications. Collaboration in research, despite being a reality of workspace, is still poorly understood and undervalued by research evaluation. Measure resources, products, but processes that turn resources into research products are often ignored. In this article, we have gathered elements of research elaborated by team members and their partners. The conceptual framework that marked the research processes was leveraged by a deep review of the literature on Research Networks.
The results of the different studies carried out by the team were published and the methodology has been presented in some publications. Having defined the research problem, its objectives and constructed the theoretical basis, the empirical works were developed in subgroups of researchers and over a period between 2010 and 2018. In 2019, it was decided to integrate the various projects associated with the theme "Collaboration Networks". An important step to achieve this challenge is the refinement of the conceptual model that structures this theme. As it is a question of perfecting a model that has been co-constructed and developed from the empirical work and its publications, it is useful to explain the methodology that has brought us to this point of integration.

Several groups of Brazilian universities (such as the University of the State of Mato Grosso and the Federal University of Rio Grande do Sul) were collaborators, as well as international partners (University of Aveiro, Portugal; National University of Colombia, Colombia; and University of the Republic, Uruguay).

In the present phase of the collaborative work, there is a need to refine the conceptual model in order to have a communication tool among the various team members, as well as to have a referential to read and interpret the interviews conducted. This effort is a collaborative work that will make it possible to bring together the main categories and subcategories, their definitions and clear examples in order to ensure internal coherence of a solid collaborative and distance research work. The use of support software (WebQDA) to organize information and work collaboratively proves to be an effective way of addressing this challenge.

**Keywords:** Qualitative Research; Conceptual model; Education; Indicators; Networking

**References**

