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The use of Triangulation as a tool for validation of data in qualitative research in Education

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Abstract: Known mainly for its ability to combine different methods of data collection, Triangulation has consolidated itself as an effective tool for both textual analysis and empirical data analysis, grouped into its different universes. In addition to its traditional use, this resource has also been used as a viable instrument for the validation and comparison of data collected in field studies, qualitative, which lack reliability and checking, when dealing with collections involving structured interviews or semistructured. The field of qualitative research, which deals with data validation, has a wide debate about its assumptions, ranging from theories of use of quantitative methods to qualitative research, the use of mixed methods, to discussions that purge any perspective of validation for qualitative data. In view of this situation, the Research, Education and Technologies Group of Tiradentes University (GPETEC), in the state of Sergipe, Brazil, has developed in recent years successful experiences in the field of validation of research data in the field of Education and its Technologies, using triangulation as a way to promote greater reliability to the inputs obtained from various sources of data collection, such as case studies, focus group research, systematic observations, bibliographic data comparison, and so on. Triangulation is one of the analytical procedures for the interpretation of qualitative data, which can be used in three different dimensions, depending on the context in which it is used, and thus has conceptual differences, which can lead to misunderstandings in its interpretation and understanding. According to Coutinho (2011), in a first dimension, Triangulation is used for evaluation applied to programs, projects, disciplines, etc. In the evaluation process, its conceptualization becomes comprehensive and complex, encompassing different variables, among them, the need to have external evaluators, in addition to the internal ones, and that, preferably, they are of different formations, allowing the combination and crossing of multiple points by sight. In a second dimension, related to data collection, Triangulation allows the researcher to make use of three or more techniques, with a view to expanding the informational universe around its research object, using, for example, , focus group, interview, questionnaire application, among others. In a third dimension, we have the use of Triangulation to analyze the information collected. In this sense, the technique predicts two distinct moments: validation and confrontation. These two moments are articulated dialectically, favoring a perception of totality about the object of study and the unity between the theoretical and empirical aspects, being that articulation responsible for printing the character of scientificity to the study, and, finally, to confer information security collected, analyzing and excluding external factors that may have interfered during the data collection process. Galeffi (2015) analyzes, in the contemporaneousness, the reliability of the variables as a movement of consistency of the qualitative research, believing that this is the only way to obtain a Scientific Rigor, so that it is possible to reveal its usefulness and its generative dynamics in the living fabric of current existential relations, according to specific contexts and favorable material and educational



conditions. Validity in qualitative research is a delicate field, discussed and interpreted by several researchers as a challenge to be overcome by scientists in this field. In the area of Education, for example, validation of data and collected data and confirmation procedures for these data may result in the development of misguided pedagogical plans, and time wasting to complete analyzes and diagnoses. Creswell (2017) treats the validation of data in qualitative research as the ability, through a specific technique (the Triangulation), to know if a given object and set of analyzed subjects can obtain important and useful inferences from the comparison of these data. The three traditional forms of validity to be sought, through Triangulation, are: content validity, preventive validity, and construction validity. Content validity, applied especially for bibliographic research, is based on the assembly of specific comparative tables, call analytical frameworks that favor the brief display of information in a single space, allowing the researcher to identify the divergence or convergence of several authors researched The preventive validity, especially applied when the data collection is done through interviews and questionnaires, is the one in which certain characteristics of the group studied are previously raised that may interfere with their responses. Example: The fear of professors in answering certain questions about their Directors, even if anonymously, fearing the final result of the research. Thus, for the preventive validity, it should be used in the questionnaire wild questions that intends to verify this aspect. The validity of construction is the use of the crossing of several data collection means, such as interviews and observations, and the dialogue of the results found with the studied group itself. In this validation model, the Triangulation is only conducted by the researcher, in that the data collected are confirmed or not by hearing and discussion of the study group itself, which this technique can identify several detours research, for example, the group's lack of understanding of the objectives and real implications of the proposed study. So Galeffi (2015) believes that the Triangulation is consolidated, in contemporary times, as an effective resource in conducting tensive wires that have valid solutions for science education, allowing the approach of an articulated epistemological understanding of wholes segmental, in whole and in parts, or moments of aggregation in the establishment of levels of research experience lived, and which have as their experimental field the same perception of an articulated qualitative science, live, practice as a methodological corpus in the service of qualified research. So, in this panel, the researchers of the Research Group Education, Technology and Contemporaneity University Tiradentes (GPETEC) present and dialogue about their experiences in the field, using the triangulation in its three dimensions (content validity, preventive validity and construct validity) and their collaboration for reliability in the process of analysis of variables, and validity of the research results, carried out in educational institutions, public and private, in Brazil.

Keywords: Triangulation, Reliability, Variables, Research method.

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