

Research Design - The New Perspective of Research Methodology

Carla Sofia Rocha da Silva^{1,2*}

¹CeiED - Interdisciplinary Research Centre for Education and Development, Social Service Institute ULHT, Lisbon, Portugal.

²Centre of Technology and Systems (CTS), Nova University, Lisbon, Portugal.

Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

Article Information

DOI: 10.9734/BJESBS/2017/30274

Editor(s):

(1) Tsung Hung Lee, Graduate School of Leisure and Exercise Studies, National Yunlin University of Science & Technology, Taiwan.

(2) Oyedunni Arulogun, Department of Health Promotion and Education, University of Ibadan, Nigeria.

Reviewers:

(1) Ani A. Derderian, Washington State University, United States of America.

(2) K. Santhana Lakshmi, SRM University, India.

(3) Salvador Peiró i Gregòri, Universidad de Alicante, Spain.

(4) Alicia García Falgueras, The Official College of Psychologists, Madrid, Spain.

Complete Peer review History: <http://www.sciencedomain.org/review-history/17424>

Original Research Article

Received 28th October 2016
Accepted 25th December 2016
Published 3rd January 2017

ABSTRACT

This article aims to demonstrate a possible relationship between quantitative methodology and qualitative methodology. It is known the eternal conflict between the two thematic areas; however researchers support a conceptual methodology that links the two methods under a theoretical and conceptual framework designed by the research problem. Research in education cannot ignore the frameworks that outline and contribute increasingly to the quantitative and qualitative approaches in the approximation of the study object. In this article the researchers build a methodological design, providing a comprehensive and coherent strategic framework, based on the epistemological ideals of a conceptual framework, outlining goals and general hypotheses. It is important to see and have a distant view of the near things that are close to us and contain a broad but close view of things. Get an idea and overview through a distant point and get a distance from a particular perspective, is the basis of our methodological research. Considering alternatives and methodology choices, led us to underline the existing advantages and disadvantages of quantitative and qualitative data. The

*Corresponding author: E-mail: silvacarla.uab@gmail.com, carla.silva@ulusofona.pt;

approach itself is pragmatic because some issues that arise can be of quantitative research and other qualitative research. If researchers want to understand how is represented socially and culturally our object of study, they must consider their stories, but also a multifaceted study that requires a statistical understands.

Keywords: Education; conceptual framework; multifaceted study; quantitative and qualitative data; methodological research.

1. INTRODUCTION

There is a lack of consensus in the literature on how to classify research in general. Research in education cannot ignore the frameworks that outline and contribute increasingly to the quantitative and qualitative approaches in the approximation of the study object. Denzin, N.K. [1] advise the approximation of quantitative and qualitative approaches as a mixed approach, whenever useful and appropriate to understand, explain or intensify, the reality that is to be put under discussion, leading to the intersection of the methods. For this article we designed a methodological design, considering a quantitative and qualitative research. However, an investigation depends mainly on description and logic of existence relations between phenomena. For this reason the methodology cannot fail to contain descriptive studies, as Fortin, M. F. [2] claims. It gives a description of the data in the form of words or in the form of numbers describing characteristics of relationships between variables "quantitative or qualitative" and correlational studies which may establish relationships between facts and phenomena, as indicated by some authors such as Freire, T., & Almeida, L. S. [3]. Therefore it is necessary to describe, all relate variables, as Polit and Beck [4] indicates the basic purpose of correlational research is to study the relationships between variables. However Quivy and Campenhoudt [5] defends the credibility of a quantitative methodology is greater if there is rigor in the construction of data collection instruments, following a careful selection of the sample and the clear and explicit wording of the questions. The negative effect of the quantitative method is not to take the role of the subject and does not take into account the subjectivity of the investigator. To understand some realities contrasts with need, in a given context, to be a part of culture. Think about the research is to understand qualitatively meanings attributed by the subjects to their actions. Guerra [6] assumes these views are not opposed to statistical content, we need to incorporate and complement this analysis. The qualitative approach aims to

interpret rather than measure and seek to understand the reality as it is experienced by individuals or groups from what they think and how they act. The qualitative focus (Fig. 1) of the research is the discourse of narrative analysis that contributes to a better understanding of the subject under analysis. With this analysis the researcher aim to amplify the voice of the subjects in the study process as a way to sociologically analyze reality from the perspective of social actors in the sample. The complementarity of these two methods is not made in an automatic way, but a construct approach the object of analysis, construction of social action. In fact, it seems absurd to understand the macroscopic phenomena on a microscopic look at a holism that considers a whole as social. Thus, research must be supported by a comprehensive and systemic perspective, which consists of finding regulatory or structural forms that produce or reproduce the object of study. On the one hand the samples are large and random and the other seeks to select a representative sample of the study object, comprising relations and social phenomena. These approaches are the instruments used, in particular, to approach the observed reality. Only the complementarity of the paradigm serves the complete understanding of the reality studied. A good method is always the one that allows a correct construction of the data, help to reflect on the dynamics of the theory. Therefore, in addition to being appropriate to the object of the investigation and providing theoretical elements for the analysis, the method has to be operationally feasible. As show Fig. 1 the quantitative and qualitative paradigm are used to bring the argument to a point where there is no doubt regarding the findings of the study or to a point of no rebuttal because a comprehensive picture of the topic is provided. An outcome from this point of view is that the paradigm is a recognition that quantitative and qualitative research methods are important in educational research to capture the complexity of the field [7,8]. Quantitative research methods are important for measuring educational phenomenon with precision and to determine

and evaluate the value of educational programs and public financial investments. Qualitative research is important for capturing the context of educational phenomenon and the humane and social aspect of education [9].

Reflecting on modernity demands one look at the two philosophical currents that defined the construction of the theory of knowledge and, consequently, a new vision of the world, rationalism and empiricism. The two philosophical currents, although distinct and opposed, since the rationalism supports reason as the only way to reach universal truths, and the empiricism claims to be experience as the

starting point for the search for truth – whose universal and absolute character is questionable - are undeniably emergence of a new scientific culture. In this context, the work of Descartes and Locke give a strong impetus to science. This constitutes a sure path to true knowledge, as far as it considers reason and sense experience as research sources. Cartesian rationalism has significantly influenced Education by emphasizing the eminently subjective character of knowledge, instituting reason as the only possible instrument for understanding and representing reality. For Locke, human knowledge only begins and survives with experience, based on sensation and reflection.

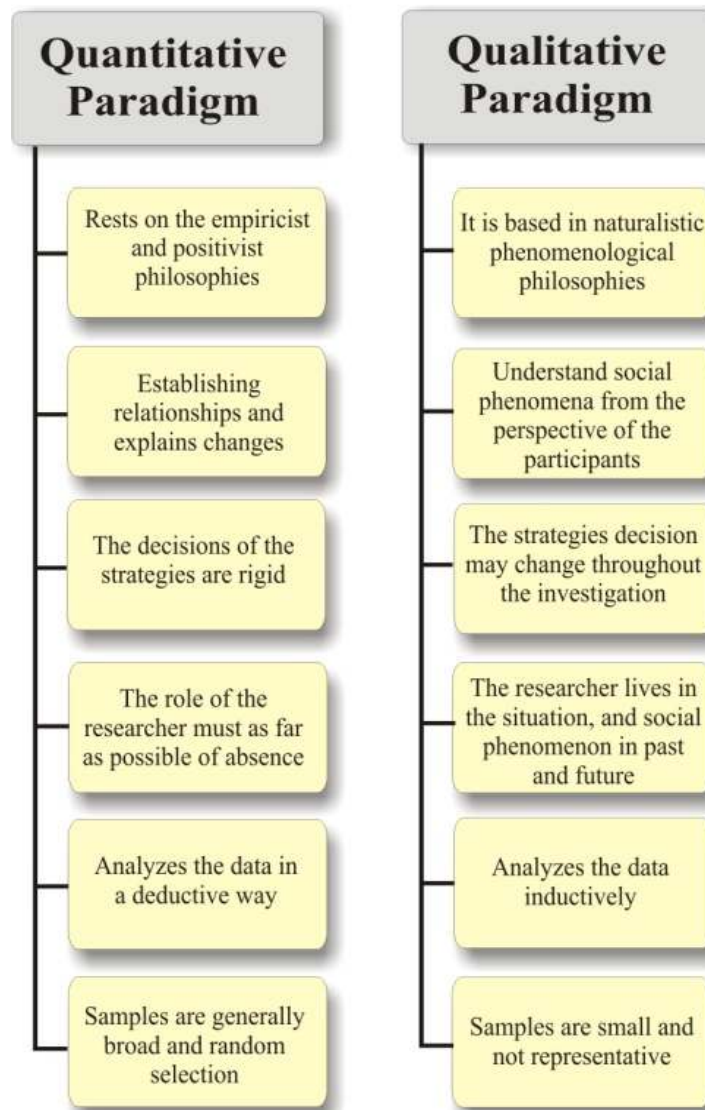


Fig. 1. Analysis of qualitative and quantitative paradigm [10]

Systemic and comprehensive perspectives, is a term used by Guerra [6] in his work entitled "Qualitative Research and Content Analysis" to describe quantitative and qualitative methodologies such as those that use logical-deductive or logical-deductive or Cartesian logic. Keeping each research approach aligned within their paradigm or model strengthens the rigor of each approach and the validity of the study is stronger.

2. METHODOLOGICAL DESIGN

Guerra, I. C. [6] observed and interpret situations on a comprehensive set enrolled in long-term trends, allow a "better understanding of the contexts in which it takes multiple individual interactions" (p.8). In fact, advantages and disadvantages are recognized for both methods, taking into account the role of objectivity and subjectivity that define them. It is a symbiosis of the two possible methods that can complement the weaknesses of a methodology, the strengths of the other. In favor of methodological integration and an approximation of the actual knowledge in study, Fig. 2 represents the ideas on the key features of the two methodologies elaborate. Based on the conceptual framework we can define our research problem, objectives and hypotheses research. Through this design our methodology is based on a symbiotic structure of two methods. These two methods allow obtain a defined sample with different research objectives, but that finds in its own definitions conclusions with a holistic approach to the research. Finally, it is sought to conclude that both approaches are necessary, but in many circumstances, insufficient to cover the whole observed reality. Therefore, they can and should be used, in such circumstances, as complementary, whenever research planning is in compliance. Fig. 2 represents a scheme that is organized by 3 phases, planning, collection and analysis. This scheme suggests a mixed approach, giving rise to the complementarity between quantitative and qualitative methods, through its applicability in the different moments of an investigation.

A mixed methods study is research intentionally combining or integrating quantitative and qualitative approaches as components of the research. The use of these approaches can occur at different points in the research process. The global analysis has the richness to contain meanings with a statistical content and with own metaphorical meanings of narrative analysis.

This type of research allows a distant and present look of the researcher in his own research, without compromising the required scientific objectivity. Scientific knowledge is always a search for a link between a theory and empirical reality. The method is the guiding thread for formulating this bond and thus has a fundamental function, besides its instrumental role and means the path of thought itself.

2.1 Quantitative Methodology

Polit and Beck [4] assumes that the utility of descriptive research increases the analysis of relations between the phenomena necessary for this type of analysis. It is necessary to know a set of theoretical constructs to reveal a perceived reality and to realize that there is a positive correlation between these constructions. Thus, an initial empirical path can always be an exploratory study, cross-sectional and correlational. The questionnaires completed a first research phase (Phase A), can be treated in an online platform and programmed in its own language, a database that will focus on the parameters to be analyzed. The data collection analysis is part of the Phase B, and aims to collect a clearly a good response rate among surveyed. In Phase C1,2,3 - is intended to apply the method of statistical analysis of the data discussed by Statistical Package for Social Sciences (SPSS), subsequently subjected to analysis of the theoretical foundation. The data in phase D plans to build and examine the data collected and draw inferences expected on the elaborate hypotheses. Data analysis phase E, which provides for the registration and interpretation followed by analysis of the final stage – phase F, with the result presentation step (Step G). Fig. 3 intends to demonstrate a conceptual plan in which the research is based on the analysis of observable and measurable data.

A questionnaire by definition is an instrument that must be strictly standardized, both in the text of the questions and in its order. Each question should be interpreted and put to each person in the same way because non-objective answers raise doubts. Ghigliione and Matalon [11] say for this to be possible, it is crucial that the issues are clear, without any ambiguity and that each person knows exactly what is expected. Flick, U. [12] states that "the pre-test consists of the ins-filling instrument that is to be used by a small sample that reflects the diversity of the target population (10 to 30 subjects), in order to verify

that the issues can be understood" (p. 253). After reporting the objectives of this quantitative path, the methodology is to use a statistically valid working tool. Bardin [13] defends psychometric properties of psychological tests feature: fidelity and validate. The fidelity can be identified in a test by measurement of internal consistency

among the items (α of Cronbach), which is mathematically linked to the two halves method [13]. The validity of the theoretical construct intends to assess the reliability and the analysis of the internal consistency of the questionnaire, through the factor analysis and the analysis of α Cronbach [12].

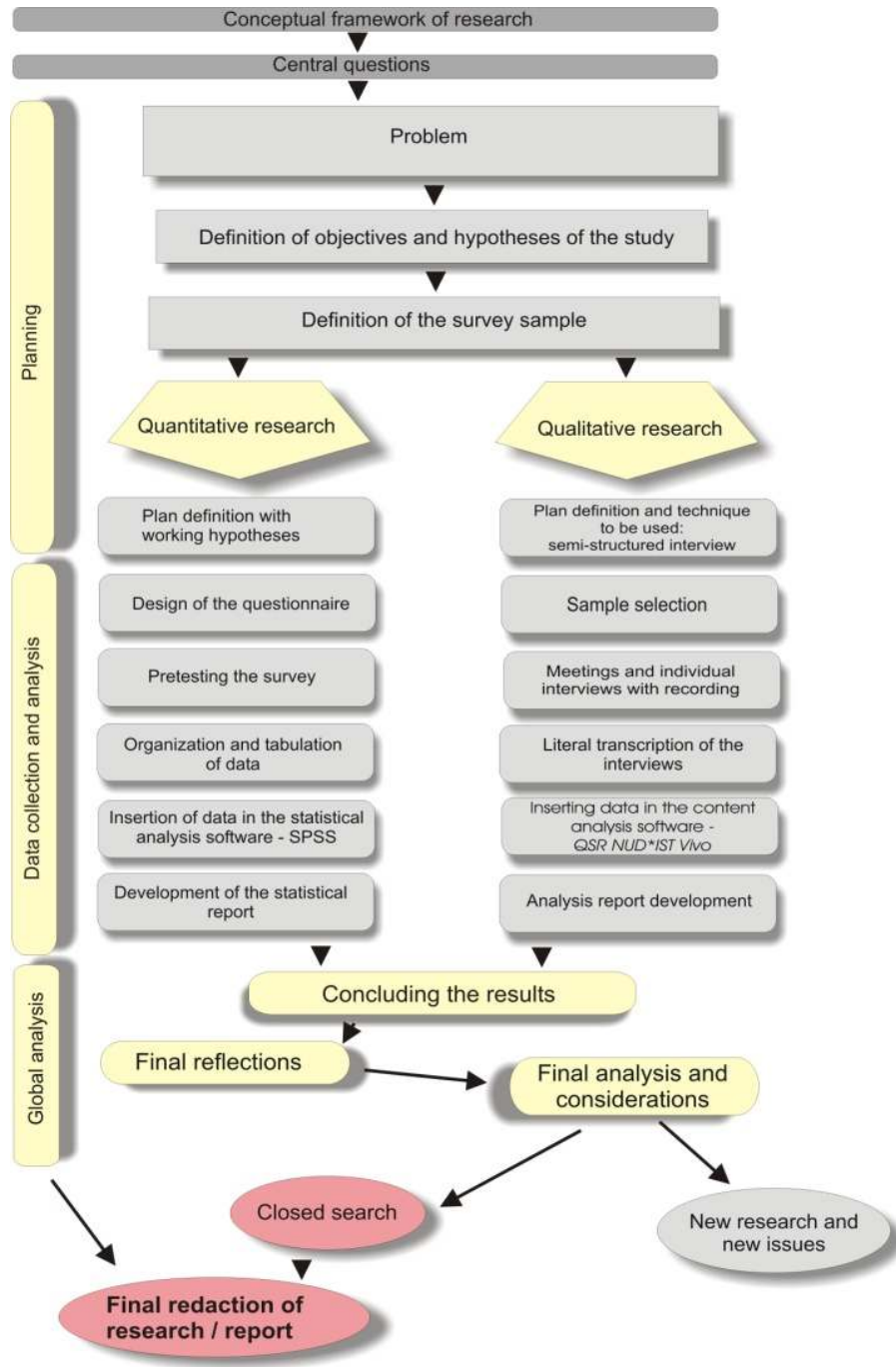


Fig. 2. Esquematic design of the conceptual framework of research [10]

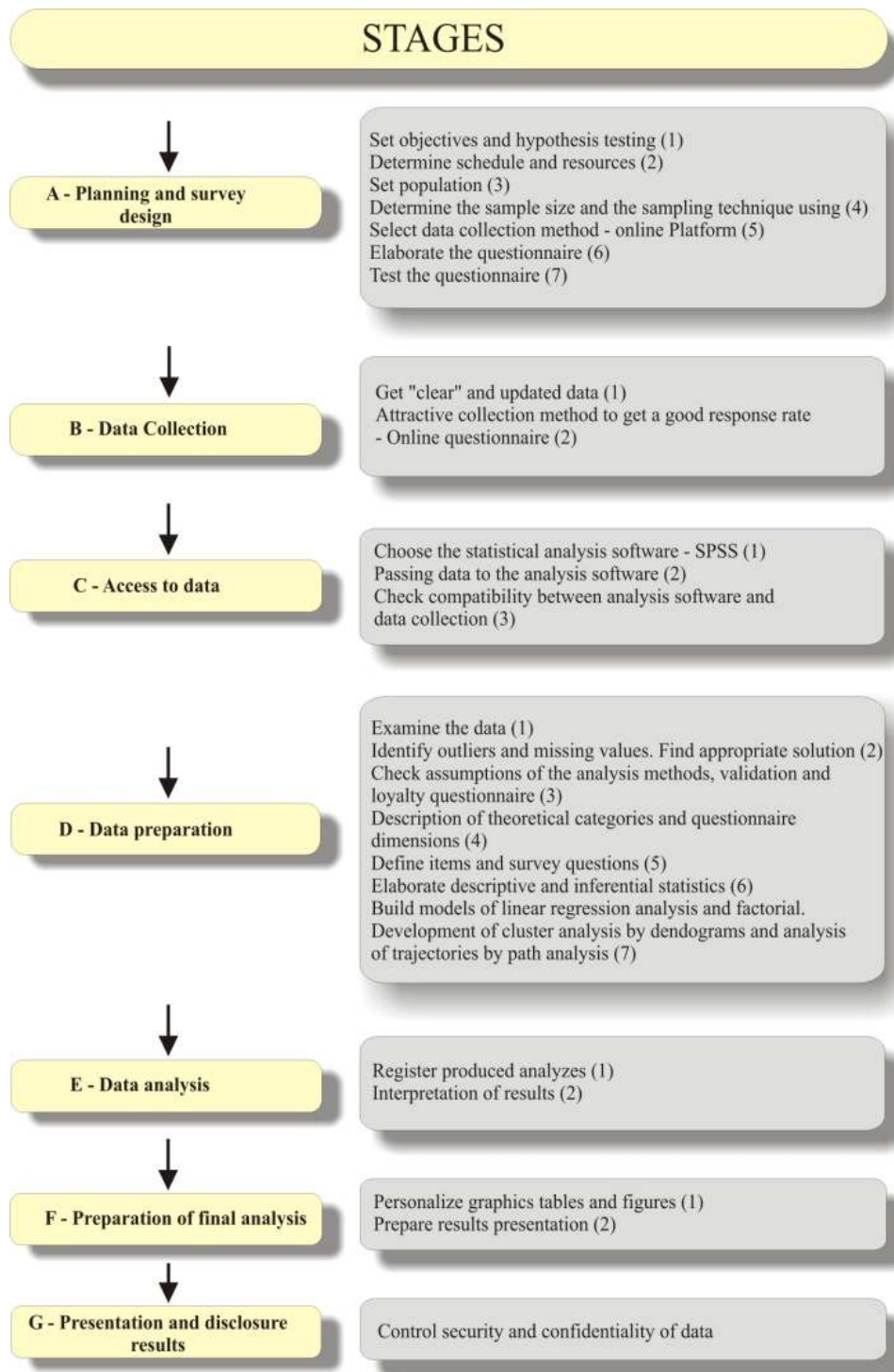


Fig. 3. Methodological development of quantitative method [10]

2.2 Qualitative Methodology

Qualitative research requires a detailed description of explanations from the data, looking

for the meaning, the intention of actions performed and the relationship of these actions with the personal context of the subject issued by them. Hence the relevance of given to discursive

devices and attention to how they associate different narratives of experiences.

Nevertheless, there are some limitations, such as the inability to generalize the results, it is not possible to directly transpose the data from one reality to another, but can only measure up analogies and patterns on common issues if cannot claim to measure an entire population [1]. This is only a conceptual or analytical generalization, allowing the researcher to theorize about the process and the subject of study, in a meaningful way for the people concerned. This perspective was outlined a working methodology to meet the emerging needs of their own methodological design of the study, experienced by the person. The way subjects construct contexts and how they are constructed for them in society, in *continuum* interactionism, there is a need to understand the remaining issues, the need to listen to the opinion of the sample subjects [10].

This perspective is intended to complement the research of the previous analysis, supporting the research.

Qualitative research can borrow the contribution because the standpoints of questioning, interviews require a one-off commitment, lived with emotion at the time of issue. This process is feasible through the discursive forms that make it possible to access contextual experiences that not only meet but also expose the phenomena that questions contain. Defending the development of what initially Glasser and Strauss [14] designated in their conceptualization of grounded theory. Grounded theory or theories rooted is a concept developed by Glasser and Strauss [14], in *The Discovery of Grounded Theory. Strategies for Qualitative Research*, want to describe a comprehensive methodology of research, whose guiding principle is inductive nature. This perspective of investigation focuses on how humans interpret and give meaning to the experiences in your subjective reality [15]. Strauss and Corbin [16] refer the main objective of the research is new knowledge on the subject in question and put the discovered what is happening, why it matters should be conducted in a flexible way. Fielding [17] argues that it is this flexibility that allows greater depth of evidence, noting in greater detail their interrelationships on the issues that support the research and the respective meanings, thus the questions will be identified for the development of this qualitative study and provide guidance in the

selection of respondents and the analysis of their discursive devices.

Qualitative research differs from quantitative to value the interpretations that individuals make of situations and to the meaning given in their natural context. The aim is to use this methodology to infer perceptions and understanding the issue, making room for interpretation. The interview as a methodological tool and consists of an interactive tool that makes sense within a dialogic space in which establish a connection between the researcher and the research subjects fulfills an essential role in the quality of empirical indicators produced. Therefore, the interviewer's is not restricted to the activity to elaborate. According to Bogdan, R. & Biklen, S. [18] five aspects characterize analysis. Qualitative research achieved the greatest development in the nineteenth century, in the 70s, with the release of new research. The direct source data is the natural environment and the investigator the main instrument in the collection of such data. The data collected are essentially descriptive in nature, and qualitative researchers are more interested in the process itself than by the results or products. Qualitative researchers tend to analyze the data inductively and look fundamentally to understand the meaning that people give to your life. This research outlined in the qualitative approach, seeks to reconcile a methodological approach to the operational objectives outlined in the research, as expressed in Fig. 3. As Bardin [13] said the organization of the analysis is carried out in three phases (1) the exploration phase of the material, (2) the data processing stage, and interpretation inferences, (3) the stage of pre analysis, contextualized phase 1. This is the phase of organization and aims to systematize the first ideas. At this stage it is important to choose the documents to be examined, the construction of a corpus of analysis with objective formulation and the development of indicators with the coding rules and dimensions to study analysis. Given that stated by Bardin [13], once set the corpus of the field on a given subject, you need to consider all the elements of this corpus, all topics were analyzed the interviews of directors, taking into account the uniformity limit.

2.2.1 Methodological development

The first step will be transcribing the interviews to digital format so that the data could be work in the chosen software. At this stage follows a

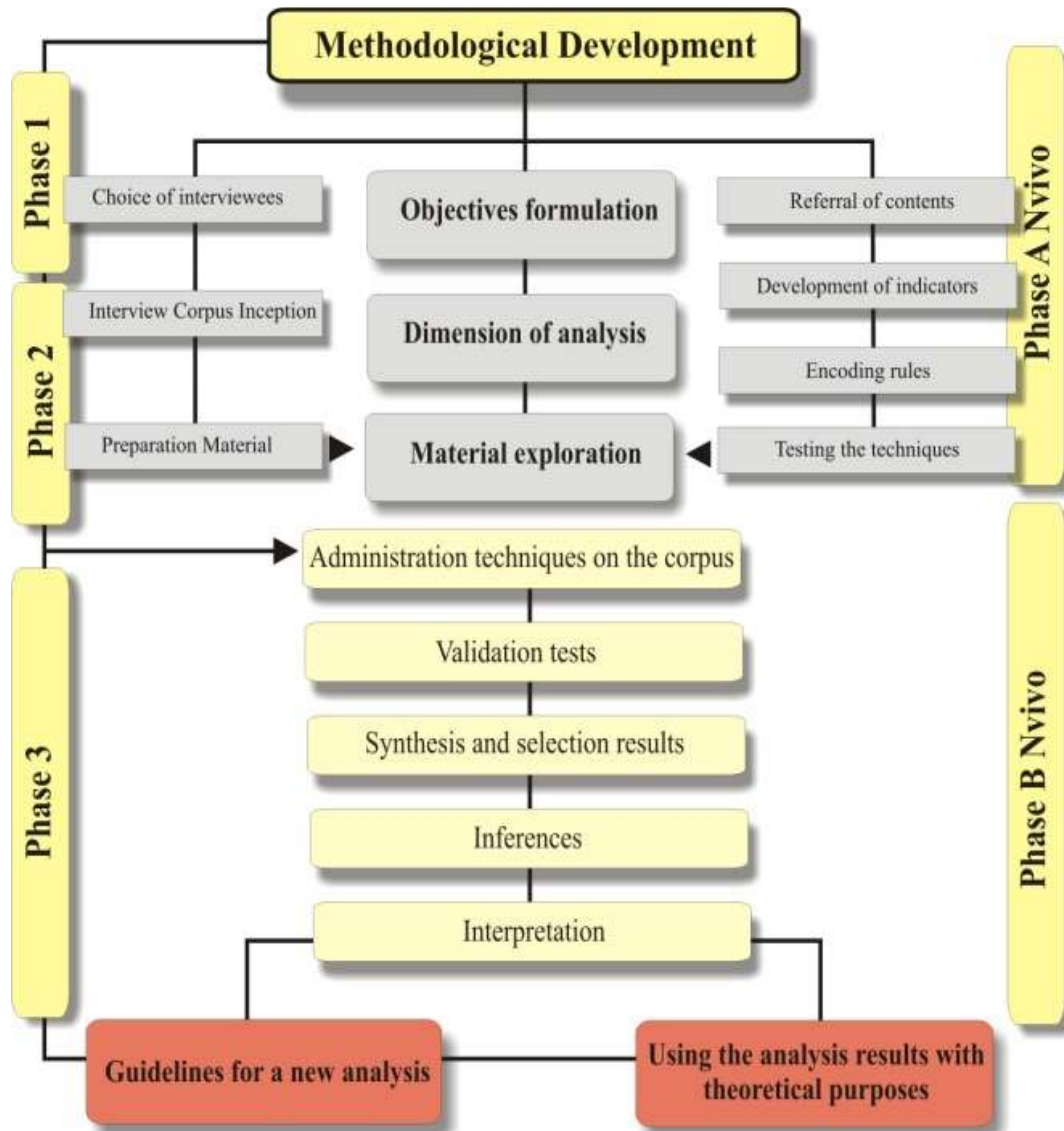


Fig. 4. Methodological development of qualitative method [10]

detailed reading of all the material collected in view of the proposed categorization. With the objective of obtain a deep understanding of the speech of the interviewees, only extracting the valid content for research. This is a data analysis technique proposed by [13] called "content analysis". The phase of the exploration of the material - phase 2, is carried from the units of analysis, from a technical point of view of a suitable computer program to the analysis of qualitative data - QSR NUD * IST (Qualitative Solutions and Research - Non- numerical Unstructured Data Indexing and Theorizing) - which at this stage proved crucial facilitating

access and handling of data. These phases are the first step of the development work in NVivo the creation and preparation of the database, phase A. In this software the researcher created the database of research through sources, organized sources. This categorization took into account the theoretical framework in which the *nodes* are predefined dimensions and the "children nodes" are the organizational skills of each size [19]. Phase B in this methodology is directly linked to the analysis and interpretation of data, whose coding is the process by which raw data is processed systematically and aggregated into units, which allow an exact

description of the relevant characteristics of the content [13]. At this stage (3) treatment of results, inference and interpretation, the procedure is the loyalty test, which aims to make clear the categories, the registration units and validity tests analyzed by categories, adapting to the objectives and purposes, without distortion of the facts [13]. Researchers intend to infer the general assumptions implicit to the previous methodology results and underlying all research. The interview allows, compared to the survey, more answers similar to the language of the subject with less data reduction, bringing together the most understanding of the reality of the subjects under study. The interview is one of the instruments most commonly used data collection in qualitative analysis [20]. According to Bogdan, R. & Biklen, S. [18] the interview is used to collect descriptive data on the subject's own language, allowing the researcher to intuitively develop an idea about how subjects interpret aspects of the world. The interview is used in this research as inference analysis to the questionnaire previously held, permitting get very rich information [21]. Regarding the degree of structure interviews, they may be structured, unstructured or semi-structured [13,22,15]. According to Merton and Kendal [21] cited by Bardin [13], the structured interview focuses on particular topics or may be guided by general questions and the investigator should not change the defined questions or the order of the topics. In unstructured interviews the researcher takes the role of leader and encourages the subject to speak freely on a topic of interest [18]. The semi-structured interview differs from structured as assumes a definite establishment of pre-established questions, guiding the interviewer on issues that may arise in the interview route. In the case of having a guide to topics, the researcher is not forced to follow the order of topics as in structured interview [5,21]. In all the research we tried to locate and identify significant structural homologies, by identifying relationships at different levels of narratives. Lincoln [23] refers to is the level of action and narration functions that can search the relationship between different levels and understand the internal logic of the narrative [13,24]. This structural analysis leads us to a greater understanding of the speeches made by the respondents in our study, becoming vertically revealing analysis of each narrative and in this form is complemented by inductive categorization and comparison between different narratives. The qualitative method intends to be a horizontal method analysis in order to apprehend the subjectivity of the narrative and

the hidden paraphrase of the interviewees' discourse. However, the quantitative analysis is intended to be an in-depth methodological approach and vertical dynamics with specific and measurable methods and techniques.

As pointed out by Demazière, D., Dubar, C. [24] method that allows this theory is the progressive and permanent comparison with other data, different but similar, distinct but comparable. This is a principle underlying the theory rooted (grounded theory) advocated by Glasser and Strauss [14]. In contrast the traditional content analysis, which states that every unit of analysis should be coded only one category [25] the same content can be integrated into more than one category [14,24] establishing relationships and leading to a comprehensive understanding of the reality studied [26]. This open coding methodology is anchored by the thought of which suggests that when looking for a local theory based on facts and not a formal theory for a field of study, is mainly due to research the importance of the hypothesis likely to emerge inductively. Therefore, the categories are being constructed and identified from the data, until the final categorization. In the transcription phase of interviews followed by a careful analysis of the text which was repeated a few times, allowing the development of the early data collected. After the introduction of the first data, written records and audio, memories and photos, the computer program worked for this dissertation was followed by the first provisional coding, this guided us in a careful reading of all project data analysis. This first coding was being performed by comparing the different interviews, either by content answers to questions made either by the use of narratives, allowing unveil some similarities and differences of views between the interviews analyzed, providing a yarn driver of our analysis. We argue that an investigation cannot mirror the image of the social world, but can contribute to access the meanings people attach to their experiences and the social world. However, this does not exclude the possibility of knowing the social world through the interaction of the interviewee and interviewer (researcher). The interview is itself, a symbolic interaction and through it we build and recognize some interactive components. From the moment research topic identification to development issues and selection of answers, the interview is a project under construction with production of meanings. The imagined subjectivity that is sought by the respondents emerges at the time of their answers in a rational and emotional

combination with the researcher during the development of the conversation. Thus, the researcher and the respondent are developed with the evolution of his own narrative. The construct validity and credibility of the research involves the relationship between the theoretical concepts and observed relations that supposedly build these concepts [27,28]. Given that the dynamics of an interview requires observation, the researcher becomes an avid observer who can read nonverbal messages of the interviewee and be aware of the transference relationship established in the interview dynamics. Once performed the transcripts of several interviews and developed a first analysis, we examine the texts to clarify the meaning of specific concepts and summarize different opinions on the issues under analysis in order to contextualize an overview. As you clarify and synthesize concepts, themes and events, new categories can be drawn. After the development of categories, the interview is encoded. The theory rooted or grounded theory is the qualitative methodology of theory using systematic techniques to develop a specific method rooted in an event or phenomenon. The computer program NVivo analysis was strongly influenced by Grounded Theory and therefore, the program offers a good support for the development of this method. Gibbs [19] shows us the techniques and ideas to achieve the analysis rooted theory supported by NVivo. This analysis was divided into three phases: the definition of codes or coding, creating axial thrust codes or coding and creating a concept map or selective coding interrelation codes.

3. RESULTS AND DISCUSSION

Design a methodological level is essential in guiding directions in research and planning the purpose of the research. Consider alternatives and methodology choices, led us to consider the existing advantages and disadvantages of quantitative and qualitative data. The approach itself is pragmatic, because some questions we want to ask are quantitative research and other qualitative research. If we want to understand how is represented socially and culturally our sample, we must consider their stories, but also a multifaceted study requires a statistical understand. If certain features or attributes can be directly measured, there are others that cannot, and need to build the indirect measuring instrument of the phenomenon in question.

The guidance to the meaning of objects, activities and events, as well as the concentration at the point of view of the subject and the meaning they attributed to experiences and events shapes much of the qualitative research. However the distant look and purpose of the investigator, allow knowing variables and analogies that can be correlated in a regression of a quantitative research model. We defend a model that can enrich the research in a qualitative and quantitative manner. Because only this allows obtaining a holistic view of a problem and interpret the local level research.

Researchers know that culture formats which we observe. Our socialization guides us on how researchers should look at the world around us and our value systems shape the interpretation of the data that passes in front of us.

4. CONCLUSION

The author's intention is to present an initial debate that considers highly relevant and arguably possible and promising. Considers, from the methodological point of view, there's no contradiction or, perhaps no continuity between quantitative and qualitative research. Both are of a different nature and knowledge but aims to be a safe way to true knowledge.

Many insights can be found in Descartes' work and applied to education, but, undoubtedly, the conception of man as a thinking being and responsible for the construction of knowledge and his method of seeking the truth were decisive for the establishment of a new way of thinking, interpreting and acting on reality. It serves as a wake-up call for educators and citizens to reflect on issues that are still challenging the 21st century, such as commitment to truth, the purpose of knowing and the real. It develops the meaning of Education and educational institutions as instruments of emancipation of the human being, and motivates the cultivation of a critical spirit, capable of dealing with the problems of its time, with a view to social transformation. However, knowledge in Locke is the result of experience, so there is no knowledge in the human mind that has not passed through the senses. It seeks to elucidate the importance of words for the expression of human knowledge and to demonstrate that the subsidies for the construction of true knowledge are the concrete reality and not just in reason.

In the first methodology presented, where the work take part of reality, the data are constructed in restricted and technical senses, while the second work methodology is presented with values, beliefs, representations, habits, attitudes and opinions. The first has as a field of practices and objectives to bring to light data, indicators and observable trends. It should be used to cover, from the social point of view, large clusters of data, from demographic groups, for example, by classifying them and making them intelligible through variables. The second is suitable to deepen the complexity of phenomena, facts and particular and specific processes more or less defined groups in length and capable of being covered intensively.

From an epistemological point of view, none of the two approaches is more scientific than the other but can complement each other in investigations. They are the result of experience and construction of true knowledge.

ACKNOWLEDGEMENTS

To the colleagues who participated in the joint reflection of this manuscript and the scientific revision of the text.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Denzin NK. The art and politics of interpretation. In handbook of qualitative research, N. D. e Y. Lincoln, Ed. California: Sage. 1994;500–515.
2. Fortin MF. O processo de investigação: da concepção à realização. Loures: Lusociência; 1999.
3. Freire LS, Almeida LS. Métodos e técnicas de avaliação – contributos para a prática e investigação psicológicas. L. S. A. & E. M. Fernandes, Ed. Braga: Universidade do Minho/CEE. 2001;109–128.
4. Polit DF, Beck CT. Nursing, research, principles and methods. Philadelphia: Sage; 2004.
5. Quivy LR, Campenhoudt. Manual de investigação em Ciências Sociais. Lisboa: Gradiva; 1992.
6. Guerra IC. Pesquisa qualitativa e análise de conteúdo. Sentidos e formas de uso. Cascais: Príncipia; 2006.
7. Hammersley M. Educational research and evidence-based practice. Los Angeles, London, New Delhi, Singapore: Sage Publications; 2007.
8. Prings R. Philosophy of educational research, 2nd ed. London: Continuum; 2000.
9. Greene J. Mixed methods in social inquiry. California: Jossey-Bass & Wiley; 2007.
10. Silva C. Does education matter? Vocational education and social mobility strategies in young people of Barcelona and Lisbon. A comparative study. ULHT, Lisbon; 2014.
11. Ghiglione R, Matalon B. O inquérito – teoria e prática. Oeiras: Celta Editora; 2001.
12. Flick U. Métodos qualitativos na investigação científica. Lisboa: Edições Monitor; 2005.
13. Bardin L. Análise de conteúdo. Lisboa: Edições 70; 2010.
14. Glasser BG, Strauss A. The discovery of grounded theory. Strategies for qualitative research. Chicago: Aldine; 1997.
15. Richards L. Handling qualitative data. A practical guide. London: Sage Publications; 2009.
16. Strauss A, Corbin J. Basics of qualitative research. London: Sage Publications Inc.; 1998.
17. Fielding J. Qualitative interviewing. In Researching Social Life, N. Gilbert, Ed. London: Sage. 1993;135–153.
18. Bogdan R, Biklen S. Investigação qualitativa em educação. Uma introdução à teoria e aos métodos. Porto: Porto Editora; 1994.
19. Gibbs GR. Qualitative data analysis. Explorations with NVivo. Philadelphia: Open University Press; 2002.
20. Yin R. Case study research. Design and methods, 4th ed. London: Sage Publications; 1994.
21. Merton Robert K, Kendall PL. The focused interview. Am. J. Sociol. 1946;51:541–557.
22. Coutinho C. Metodologia de investigação em ciências sociais e humanas: Teoria e prática. Coimbra: Almedina; 2011.
23. Lincoln. Handbook of qualitative research. California: Sage; 2006.

24. Demazière C, Dubar D. Analyser les entretiens biographiques. Paris: Éditions Nathan; 1997.
25. Vala. A análise de conteúdo. In Metodologia das Ciências Sociais, A. S. Silva & J. M. Pinto, Ed. Porto: Edições Afrontamento; 1986.
26. Maroy C. A análise qualitativa de entrevistas. In Práticas e Métodos de Investigação em Ciências Sociais., D. R. e P. S.-G. L. Albarello, F. Digneffe, J.P. Hiernaux, C. Maroy, Ed. Lisboa: Gradiva. 1997;117–155.
27. Patton MQ, Qualitative research methods. 3rd ed. London: Sage Publications; 2002.
28. Peräkylä A. Reliability and validity in research. Based on tapes and transcripts. In qualitative research. Theory, method and practice, qualitative. D. Silverman, Ed. London: Sage Publications. 1997;201–220.

© 2017 Silva; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://sciencedomain.org/review-history/17424>