La propuesta metodológica como una alternativa para la integración de saberes

Methodological proposal as an alternative for the integration of knowledge

Floralba del Rocío Aguilar-Gordón

Universidad Politécnica Salesiana, Research group of Education Phylosophy (GIFE), Quito, Ecuador

faguilar@ups.edu.es

https://orcid.org/0000-0002-9886-6878

Resumen

El presente artículo se propone reflexionar acerca de la propuesta metodológica como una alternativa de titulación, como una estrategia para la resolución de problemas y como una manera de integrar saberes que permitan la formación integral de los seres humanos; en tal sentido, este documento explica detalladamente cada una de las etapas de su constitución y analiza las características, contribuciones y estructura de la misma. Este trabajo pretende establecer un conjunto de pautas para la estructuración de una propuesta metodológica crítica, creativa e innovadora que responda a necesidades emergentes de la realidad educativa y de la sociedad en general. La propuesta metodológica se convierte en una estrategia pedagógica y didáctica que potencia diferentes habilidades, destrezas y competencias en el ser humano; es un referente para la formación profesional que valora los procesos investigativos, la percepción analítica, crítica y reflexiva de los diversos hechos, fenómenos y situaciones educativas-contextuales en las que se encuentran inmersos los sujetos. En el trabajo cotidiano del pedagogo en el salón de clase predomina la incertidumbre acerca de los procesos que se debería seguir para que el estudiante aplique los conocimientos adquiridos, de allí que el contenido expuesto en este manuscrito puede ser una oportunidad, un ejercicio y una acción a ejecutarse para que el estudiante pueda llevar a la práctica el corpus teórico adquirido.
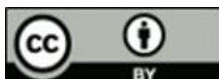
Palabras clave

Educación, formación integral, integrador, propuesta metodológica, saberes.

Abstract

This article reflects on the methodological proposal as an alternative of qualification, as a strategy for solving problems and as a way of integrating knowledge that enables the integral formation of human beings; in this sense, this document explains the stages of its constitution and analyses its characteristics, contributions and structure. This paper aims to establish a set of guidelines for the structuring of a critical, creative and innovative methodological proposal that responds to the emerging needs of the educational reality and of the society in general. The methodological proposal becomes a pedagogical and didactic strategy that enhances different skills and competences in the human being; it is a reference for professional training that values the research processes, the analytical, critical and reflective perception of the facts, phenomena and educational-contextual situations in which the subjects are immersed. In the daily work of the professor predominates the uncertainty about the processes that should be followed in order for the student to apply the acquired knowledge; hence the content in this manuscript can be an opportunity and an action to be carried out so that the student can practice the acquired theoretical corpus. The manuscript uses the phenomenological-hermeneutic method that allows a direct approach to the object of study and promotes the understanding of the individuals in their context.

Keywords

Education, integral teaching, integrative role, methodological proposal, knowledge.

1. Introduction

This article analyzes the methodological proposal as a qualification alternative and as a way of integrating knowledge that allow the integral formation of human beings. A methodological proposal is a particular type of academic manuscript whose main objective is to communicate the results.

Likewise, the methodological proposal constitutes one of the alternatives to achieve the qualification in specific degree, master and professionalization programs; these are titling works that have similar complexity to research and development projects; (a) complex compared studies; high-level scientific articles; the design of complex models; (a) artistic products; high-tech devices and others set out in the Academic Regulation (CES, 2017).

The scientific theories related to the methodological proposals express that these are characterized by the instrumentation of an interdisciplinary integration work system, in which a series of elements and learning strategies with systemic and processual focus are involved, oriented to the implementation of learning, skills, and competencies.

The methodological proposal aims to systematize a set of theoretical and practical knowledge that favors the scope of meaningful learning; spaces are fostered in which the development of cognitive, procedural and attitudinal competencies developed by the student throughout a given formative program is observed. Hence, from the ontological perspective, the methodological proposal intents the reconstruction of knowledge, capacity that is developed by the person; has the ability to renew the various ways of understanding and understanding the world, and the skills it deploys for critical-constructive-transformative innovation of the reality in which it lies.

The methodological proposal forces the subject to make an integration of the knowledge acquired with the new know-how; the mind of the concretizes actions in his/her daily life, the person restructures his/her internal world to modify the external world, the person practices the theoretical corpus assimilated. Among the permanent problems surrounding the structuring of a methodological proposal are: what is going to be investigated; how and the time it will be done; the cost and the resources that are going to be used. These questions will be answered in this paper, which aims to establish a set of guidelines for the structuring of an integrative, critical, creative and innovative methodological proposal. This work uses the phenomenological-hermeneutic method that allows a direct approach to the object of study and encourages the comprehension of the individuals in their context.

This document is structured into five parts: the first deals with the characterization of the methodological proposal; the second reflects on the contributions made by this type of work for the strengthening and fulfilment of the bases of education; the third sets out some preliminary questions concerning the methodological proposal; the fourth analyzes the stages of the methodological proposal process and finally, the fifth explains the structure of the methodological proposal. The development of each topic is then presented.

2. Characterization of the methodological proposal

These are some of the characteristics of the methodological proposal:

2.1 The integrative role

The integrative nature of the methodological proposal makes real the integral formation of the human being who is convinced that learning and knowledge is forged throughout life. As society becomes more complex, "it is a priority to reassess integrative, qualitative and holistic approaches that tend to consider that knowledge is not produced in a linear way, thus, being necessary to rethink the meaning, nature, construction and the very meaning of knowledge" (Aguilar-Gordón, 2010, p. 149). The new era requires collaborative and integrative ways of thinking that overcome the reductionisms and fragmentation of knowledge, it also requires new ways of interaction from the emergence and use of digital technologies. Furthermore, the integrative nature of the methodological proposal maximizes the fact that education is:

> A reality that belongs to the temporal space of all people; it is action-creation, construction and transformation of life into society. Education is an active and psycho-physical-social order that allows the comprehension of new realities according to the level of internal maturation of the subjects (Aguilar-Gordón, 2019a, p. 3).

2.2 Interdisciplinary role

The methodological proposal is interdisciplinary because it articulates, dialogues, relates and requires the implementation of essential aspects of the different knowledge, scientific or cultural disciplines that conceives the presence of philosophical, epistemological, sociological and pedagogical knowledge in the different curricula "as rigorous interdisciplinary fields, with its own historicity and as knowledge that propitiates responses to the human problematic of the last times" (Aguilar-Gordón, 2019a, pág. 26).

2.3 Contextual role

The methodological proposal considers the characteristics of the different educational environments and its technological reality. It arises from a diagnosis and responds to a

specific educational and social context in which the set of actions aimed at fulfilling the proposed objectives will be developed. The contextual nature of the methodological proposal encourages "meaningful learning based on experience, useful for life,... with the incorporation of new models and educational strategies..." (Aguilar-Gordón, 2019a, p. 10) that promote the need to understand and respond to the theoretical and praxiological requirements of the environment.

2.4   Motivational role
This type of work contributes so that the subject becomes aware of the unlimited role of the knowledge aspect that impels to activate it by means of the search of different modalities of studies, in real contexts and in virtual learning environments.

2.5   Systematic role
The methodological proposal complies with systematic processes that seek to link and give meaning to the programmatic contents previously addressed in various modules, courses, and the student's actions in the educational and social context in which it is immersed.

2.6   Innovating role
The methodological and technological proposal is characterized by being innovative. In the pedagogical field, innovation can be at the generation level of new educational, pedagogical and didactic models; the proposal of new methodologies, techniques and teaching-learning strategies; the construction of new evaluation tools and instruments. Innovation can be, for example, "in the use of unconventional strategies, ... in the field in which valuable results can be obtained" (Marchetto, 2006, p. 63) for all involved, for the teacher in his/her role as researcher, for the student in obtaining the learning through creative, experiential and meaningful ways and for the context.

Innovation in the technological field of education should include the four phases suggested by Lara (1998): "research, technological development, implementation and adoption, and improvement" (p. 43), since the research proposals contains two essential stages of basic and applied research. In reference to the first, the proposal is oriented to the generation of scientific knowledge, its centers of action are the organizations, the educational institutions and the socio-educational context. In relation to the second, the proposal is directed towards the search of original alternatives that contribute to the improvement of the situation.

2.7   Questioning and operative role
These propose to diagnose problems and seek for alternative solutions to satisfy the different educational needs of the individuals and the contexts.

2.8   Organizational role
Every methodological proposal is developed on the basis of plans, programs, projects and processes organized in a timely, coherent and systematic way. Planning becomes the base of all methodological and technological proposals. Adequate planning allows to optimize resources, meet objectives, meet essential individual needs and social, academic and pedagogical expectations.

2.9   Formative role
The methodological and technological proposals allow to achieve the main objective of education: "to learn how to learn" and with its four fundamental bases: to learn to know, to learn to make, to learn to live together, to learn to be, raised by Delors (1996) in the report

to UNESCO. In this sense, education should "promote the development of meta-cognitive activities useful for understanding life and the world; an education that allows to present what we feel and what we think; an education where the student speaks more and hears less" (Aguilar-Gordón, 2010, p. 36).

3. Contributions of the methodological proposal for the fulfilment of the education bases

- **Learning to be.** The methodological and technological proposals promote the direct or mediated interaction of technology with different individuals, personalities, contexts and realities that carries with it the development of high levels of comprehension, tolerance, adaptation to the circumstances and the development of a high capacity for autonomy, responsibility and respect for the diversity, considering different learning styles, thinking styles, memory classes, physical capacities, communication skills, types of intelligence, forms of reasoning, etc.
- **Learning to know**. The methodological proposal combines the scientific corpus acquired with the range of knowledge that emerges from the researched social educational environment. The articulation of the student's own general culture, the systematization of the theory acquired in the formative process and his/her own experiences allow the comprehension of the problem, the deepening of the theory that supports the proposal and the generation of solutions. This type of work allows to know more to take advantage of all the possibilities offered by the researched phenomenon, the subjects and the contexts involved.
- **Learning how to do.** The methodological proposal carries with it new challenges for the teacher, since he/she not only performs an academic work to achieve a professional qualification but goes beyond, evidences the implementation of all that he/she knows, discovers and projects to respond to the diversity of situations, experiences and educational and social problems that he/she is responsible of facing.
- **Learning to live together.** The methodological proposals promote the capacity development for the interaction, cooperation, teamwork, collaboration and sustained dialogue with others to find the right solutions to solve conflicts and/or to solve different educational problems.

4. Preliminary issues of the methodological proposal

With the aim of fostering the interest in science and its articulation with educational praxis and with the different situations of human activity, the methodological proposal inquires about what, how, when and the reason of studying theories and concepts; it establishes a clear rupture with memorization and simple association to orientate itself to the comprehension of new problems, contexts and subjects. Hence, the main preliminary issues of the methodological proposal are:

1. **Identification of the main needs of the context.** It becomes the initial phase of the methodological proposals, it revises the background, the difficulties, it describes the problematic nuclei present in a given reality.
2. **Problems that will be solved.** It is the basis of any proposal, it describes and explains the interest in the current changes and transformations that are to be achieved.

3. **Brainstorming for problem solving.** Generation and systematization of ideas for the structuring of a possible solution, leaving open the way for the work of application and experimentation.
4. **Methods and techniques for the application and/or experimentation**. The establishment of methods, techniques, procedures and instruments that allow the implementation and experimentation of the theory and the concepts involved in the problematic situation.
5. **Conceptualization and Theoretical foundation of the alternative solution.** Each result demands deepening in the comprehension of the contents, a solid theoretical support and its potential application.
6. **Communication and socialization mechanisms.** It is necessary to work on the various representations and results of the exploration carried out, the idea is to look for diverse mechanisms like reports, exhibitions, applications, etc. that allow the communication and socialization of the proposal.
7. **Revision of the construction process.** Review, observation and correction processes are used as well as rubrics, worksheets, guides that allow a rereading and/or reworking of the proposal carried out.
8. **Generation of guidelines for the transfer to other scenarios**. Guidelines are proposed to apply and solve problems in other contexts, new ideas, questions and questioning are set up aimed at analyzing other realities.

5. Phases of the methodological proposal process

The research activity of a methodological and technological proposal is structured according to three major stages:

1. **Research planning.** This stage is formed by the following steps: The evaluation of current conditions and the definition of the problem; the consultation of information sources; the formulation of goals and objectives; the formulation of hypothesis, proposition or idea to defend; identification of variables or main guidelines; structuring the plan of action or the design of the research that will guide the proposal; the allocation of economic, material, human and financial resources to be used; the mechanism implementation of the proposal; and finally, the mechanisms and strategies for monitoring and controlling the proposal.
2. **Conducting the investigation.** This stage presupposes the following steps: Identification of the context, the subjects, the population and the sample to be used, as well as the identification, organization and systematization of the data to be used.
3. **Obtaining and communicating the conclusions.** The shortest and most important part of the research work includes two successive works: a) the elaboration of the conclusions reached after having analyzed and interpreted the data obtained in the investigative process; and b) the structuring of the research report which serves as a means of communicating the results, the difficulties encountered, the limitations of the research, the projections, as well as the implications in the educational practice.
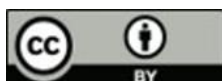
6. Structure of the methodological proposal

The methodological proposal is formed by the following elements:

6.1 Definition of the topic

The topic of the methodological proposal is characterized by being brief, interesting, clear, precise and attractive to cause the interest of the reader. The subject should be raised concisely, should be informative, may not exceed a maximum of 85 characters including the space. The topic arises from ideas; problematic situations; an individual or social need; the theoretical or practical experiences lived by the experts or by the investigator himself; observation of contexts and subjects; the researcher's previous knowledge; the investigations carried out; the sources investigated; etc.

6.2 Abstract

The abstract of a methodological proposal will have an extension from 220 words to 250 words at the most. The abstract is characterized by a clear and concise description of the following elements: brief presentation of the topic; objectives and the problem; description of the problematic context and the methodology used; brief presentation of the main results and conclusions. It must be written in an impersonal way, "this work analyzes..." (Aguilar-Gordón, 2019b, p. 359).

6.3 Problem

The structuring process of an advanced methodological and technological proposal is initiated according to a problematic area from which the research problem is extracted; it comes from a theoretical or practical context. According to Carrasco and Tinker (2009), this phase can be synthesized in the question "What is it?" (p. 30).

The choice of the problem requires clarity and precision at the time of its formulation, to choose a suitable problem, Pérez Juste et al. (1981) say that a problem may arise as:

> a) a result of observation; b) a result of contact with professors or experts; c) as a consequence of publication readings, studying how the techniques and ideas examined could be applied to problem-solving; d) conclusion of lectures or discussions among specialists; review of "discussions" or "suggestions" for future research that any research report should have (p. 96).

Thus, a well-formulated research problem must meet the following conditions: a) real (not built or invented by the subject's mind); b) realizable, i.e., according to Carrasco and Caldero (2009) "it refers to a hypothesis that can be formulated as a solution attempt and that it is possible to verify " (p. 31) or that a proposition or idea can be raised to defend as a solution and provable attempt and, c) original, to such an extent that it is not resolved or that the resolution has been biased.

The problem needs to be formulated precisely in one or more specific questions in order to make it a suitable guide for the formulation of the hypothesis, the proposition or idea to be defended.

6.4 Objetives

The objectives of a methodological and technological proposal are a set of fundamental tasks fulfilled in the construction of all kind of scientific knowledge. The objectives are the

specific aims, purposes or goals that are intended to be achieved "in order to answer a research question that guide the development of research" (Briones, 2013, p. 8).

The methodological proposal should raise a general objective and specific objectives according to the nature of the investigative work. The general objective must respond to the whole or totality of the study or proposal that is intended to be carried out, must summarize the final result that is intended to be achieved with the development of the proposal. The specific objectives correspond to singular, particular or specific aspects of the proposal and derive from the general objective (Varios autores, 2019).

The objectives should be structured according to the main questions that constitute them: what? how? and what for? The objectives must be written using infinitive verbs, they must fulfil the main characteristics of clarity and precision. Any objective of an investigation must be measurable, pertinent, relevant, challenging, well-focused and feasible to be achieved or performed. It should be mentioned that the objectives should respond to the issue and the problem of research.

6.5   Justification

This section is constituted by the following components: a) brief presentation of the topic in order to attract the attention of the reader; b) the formulation of the purpose or objective of the methodological and technological proposal; c) the explanation and contextualization of the problem guiding the investigative work; d) the formulation of the problem; e) the presentation of the idea to be defended, the proposition or the hypothesis; f) The explanation of the importance, topicality and relevance of the methodological and technological proposal to be developed; g) the explanation of the main guidelines of the methodological framework used; h) the description of the main conceptual framework supporting the proposal; and finally, i) a brief description of the structure of the proposal. In the justification it is necessary to use bibliographic citations, as well as the most significant and current literature of the topic at national and international level (Aguilar-Gordón, 2019b).

6.6   State of the art

This phase of the process makes a systematic review of the "state of the question" on the subject of the investigation (Carrasco and Caldero, 2009, p. 31), it is the moment in which the researcher consults and reviews sources of information, seeks, collects and organizes the documentation on the subject matter of the investigation.

The state of the art is based on the analysis of the main publications on a given subject; its objective is to define the current state of the problem and evaluate the research carried out. According to Carrasco and Caldero (2009), the documentary review allows "to check whether the subject to be investigated is meaningful; it allows to redefine the problem or to clarify it, to situate the investigation within a perspective, theoretical body or conceptual framework" (p. 99).

Its structure responds to the phases of the topic/problem, contributions of researchers or teams, changes in the theory or the main theoretical currents; unsolved problems; current and future trends (Giordanino, 2011). It is a thorough and informed review of the subject/problem of research. According to Delors (1996) in the report to UNESCO, it is what a "summary study".

6.7 Theoretical perspective

It refers to the body or development of the proposal, it implies putting into practice, a critical, constructive and action attitude throughout the exhibition that must tend towards the interpeal, in order to get the attention of the subject and the problem. The investigator will have to generate in the reader the capacity to identify the dialogic intention of the proposal and to propitiate an open discussion.

This stage of the proposal is formed by the dialogue of the investigator with the theories, postulates, approaches, tendencies, authors and currents of thought that support the affirmations made according to the subject and the problem to solve.

This stage is formed by the set of topics and sub-themes that are intended to be developed; it is an explanatory, interpretative and active stage, in which the researcher also generates new theories, approaches and perspectives.

6.8 Methodological considerations

It refers to the establishment of the methods, techniques, instruments, procedures and resources required for the development of the proposal. The methodology is defined by the subject and the problem of the investigation. In the development of a proposal one can opt for methodologies of qualitative character, quantitative character or combined methodologies.

The function of the methodology of a proposal is to ensure the scientific rigor of the results, thus, it is necessary to bear in mind the following four basic criteria established by Lincoln and Guba (1985) quoted by Carrasco and Caldero (2009) and that paraphrased:

   a) Reliability (it is presented when the data collected responds or identifies with the reality; in quantitative research it refers to the internal validity, and the qualitative methodology corresponds to the credibility);
   b) The applicability (possibility of applying the discoveries or results obtained to other contexts or similar situations; in quantitative research it is called external validity and in qualitative methodology it becomes transferability);
   c) Consistency (it indicates the degree to which the results will be obtained and whether the research is replicated or repeated; in quantitative research it is known as reliability and in qualitative research is called dependence);
   d) Neutrality (meaning the certainty that data is not biased, in quantitative research is equivalent to what it is called objectivity and in qualitative research is identified as confirmation).

6.8.1 Methods

They are a set of systematically organized procedures that lead to the achievement of the objectives proposed in the research. Among the methods that may be useful are scientific logical methods: inductive, deductive and combined according to the topic and problem of the research.

If the proposal is aimed at solving a specific problem, with particular contexts and subjects, it generally uses the scientific method oriented by the following stages: observation of a specific problematic, phenomenon or reality; formulation of hypothesis, proposition or idea to defend; experimentation analysis, comparison, generation of new theory, conclusion or formulation of a new law.

On the contrary, if the proposal goes to the solution of a theoretical need identified at the content level of the scientific corpus it will use the deduction as a starting point to demonstrate its validity in the concrete practice, for this reason the following process is proposed: the theoretical framework understood as the corpus of ideas or theories that the investigator takes as a guide of his/her work; the approach of the problem (theoretical or practical) for which it will seek an answer; the formulation of a hypothesis, proposition or idea to defend; the deduction of the observed consequences; corroboration or refutation of hypotheses through the use of reasoning (deductive) with a view to annihilating and replacing a theory; paraphrasing Finol and Nava (1993) the subsequent consequences determined by the results obtained by the social and cultural impact of the new discovery.

It is important to consider that the proposal can be supplemented by philosophical methods such as phenomenological; hermeneutic; case studies; ethnographic; etc.

6.8.1.1 Phenomenological method
Carrasco and Calderero (2009) argue that the phenomenological method "is the systematic investigation of subjectivity" (p. 108). In addition, Bullington and Karlson (1984) affirm "its goal is the study of the world as presented in and through consciousness" (p. 51).

Patton (1999) quoted by Carrasco and Calderero (2009) states that the phenomenological method focuses on "how people understand the meanings of what happens" (p. 108) to the extent that researchers study different qualitatively forms to which subjects experience or think about various phenomena. The phenomenological method is aided by the hermeneutic or interpretation method whose purpose is to discover the understanding forms that people have on the specific phenomena to frame them within conceptual categories; in this sense, they carry out classifications on the conceptions that the subjects have about the world and of the reality with a view to that the obtained results can be general and can be applied to diverse situations and contexts.

This phenomenological-hermeneutical methodology is appropriate for investigating a multitude of educational issues, for example: interpretations done by students about how teachers manage themselves in the classroom; student perceptions of teaching methods; etc.

6.8.1.2 Study-case method
This method implies the analysis of a real situation in which there are needs and problems that require timely answers and solutions; it consists of a detailed description and analysis of specific social units or educational entities. Carrasco and Calderero (2009) say that this method "is situated within the ideographic approach, since it seeks the deep understanding of the individual, family, group, social institution, community reality, etc." (p. 110).

This type of method is appropriate for the study of a specific situation in a short time, it can be done in teams of work within a framework of discussion and debate, in which the exchange of ideas allows the adequate understanding of the problem or phenomenon researched, it enriches the proposal and shows interesting results.

6.8.1.3 Etnographic method
This method intends to discover beliefs, values, interactions, behaviors, perspectives, motivations of the people or of a social-educational group, and the way in which all this is developed over the time; what is important for this method is the meaning and the interpretations. The educational ethnography "studies the different areas of the social life of the school" (Carrasco and Calderero, 2009, p. 112); therefore, it describes, explains and

interprets the educational phenomena that takes place in the context of the educational institution. Following the study of Goetz, J. and LeCompte, M. (1988), there are four phases that make up the ethnographic research process:

> a) Questions related to the research and preliminary theoretical frameworks. b) Investigator's access to the stage, selection of key informants, initiation of interviews and selection of information retrieval and registration strategies. c) Information collection d) Analysis and interpretation of information (p. 172).

The research always begins with a global idea or thematic of the work in order to try to understand a system with the meanings of the participants. Ethnography is an effective means of critical and reflective analysis of teaching actions and practices.

Likewise, Wilcox (1993) argues that the applications of ethnography in education are summarized in two main lines: "a) exploration of the school as an instrument of cultural transmission in the classroom, communicating a complex set of attitudes, norms of behavior values and expectations.... and, b) exploring cultural conflict in the classroom" (p. 103). The first case includes research on the hidden curriculum or in the classroom as a socialization agent; in the second case, research on the confrontation between institutional culture and family organization and its impact on learning, learning styles, ways of thinking, interaction rules, etc. can be considered.
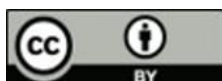
6.8.2 Techniques

In general terms, the techniques are understood as methodological and systematic procedures in charge of operating and implementing the research methods and that allow the effective and immediate compilation of the information. There are several usefulness techniques for the development of a proposal and these are employed according to the subject, the problem investigated, the context, the circumstance, the time and even according to the capacity of the investigator; among them are: the bibliographic or documentary technique; the observation; the interview; the survey; the signing; sampling; the test; the focal group. All of them contribute to the collection of the necessary information in an investigation.

6.8.3 Instruments

The research instruments are the tools employed by the investigator for the compilation of the information according to the subject, the problem and the objective of the investigation.

Hernández (1991) argues that "the appropriate measuring instrument is the one that records the observable data, so that it truly represents the variables that the investigator has as its object" (p. 123), in addition, this author states that despite existing different types of research instruments, "there is a general procedure that can be adapted to each of the types of instruments" (Hernández, 1991, p. 124); this procedure for building research instruments consists of the following steps: "to list the variables to be measured; to revise the conceptual definition of the variables and understand their meaning; to review how variables have been operationally defined; to choose the instrument and adapt it to the context of the research" (Hernández, 1991, p. 125).

In general, the instruments used are designed according to the selected technique, as each technique involves the use of its own instrument as explained in Table 1.

| Investigation Technique	Instrument
Observation	Observation guide
	Checklist
Signing	Cards
Survey	Questionnaire
Interview	Interview guide
Specific group	Discussion
	Discussion guide

Table 1. Research instrument techniques

6.8.4 Procedures

It consists in the description of the steps, tactics, strategies and actions to be proposed to carry out the research that will consolidate the methodological and technological proposal. These procedures may include:

1. Identification of the subject or problem of the proposal;
2. Relevant documentary review related to the subject, problem and issues raised in order to know the state of the art;
3. Actions related to the plan implementation or the proposal design (selection of the place or scenario where the proposal will be developed; actions related to site access, receptivity, feasibility, characteristics, predisposition of participants; method selection; the duration of the study, the contingencies, the resources to which it is used for the development of the investigation;
4. Activities related to the beginning of the study (to know the context, the norms, the selection of participants or the sampling for the development of the proposal);
5. Tasks on the collection and analysis of the data (the selection of techniques, instruments and procedures; the analysis of the information, the rigor assurance of the investigative work);
6. Actions and strategies in relation to the completion of the study;
7. The tasks on the basis of the elaboration of the research report and the drafting of the proposal.

6.8.5 Resources

These constitute the inputs required to carry out a methodological and technological proposal, these are different classes: human, material, economic, financial, technical and technological. All of them are essential assets and act as a system that allows the execution of a program, plan of action, project or proposal. The existence of all the research resources mentioned above makes possible the fulfillment of the objectives established, entails and integrates the scientific activity and contributes to the solution of the investigation problem. There is a clear connection between research resources and scientific method, because despite being different realities these are complementary and are required mutually for the resolution of a problem, for obtaining and for the processing, organization and systematization of information, and for the whole investigative process. It is only feasible to obtain information of the system investigated thanks to the existence of the resources, mainly those referred to the human talent.
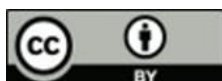
7. Results

The results expose objectively the main findings; it offers a vision of the implications of the work, the limitations, the tentative response to the problem, the relations with the objective of the investigation and the possible lines of continuity (Aguilar-Gordón, 2019b). The results must be real depending on the data obtained, analyzed, processed and systematized in the investigation.

8. Conclusions

Conclusions emerge from the investigative work and are associated with the whole process; these can be linked with recommendations, evaluations, applications, suggestions, new relationships and accepted or rejected assumptions, the material and methods used.

8.1 Conditions of the conclusions
- Must be properly justified
- Must respond to the objectives and the problem of research
- Must include deductions, inferences and new lines for future research
- Must be written in a clear and precise manner
- Must not make judgments of value
- Must not repeat or duplicate data
- Must not add new information
- Must appear in a logical and coherent sequence at the end of the text.

9. Timeline

It is the planning and temporal organization of the phases, activities and tasks programmed for the development of the proposal, using the Gantt chart created by Henry Laurence Gantt. Gantt´s chart is "a visual tool for planning and scheduling activities or tasks on a timeline" (Riviere and Riviere, 2017, p. 8). This tool allows the user to graphically establish the duration, the beginning of each of the activities and the monitoring and control of the entire planning. The schedule synchronizes time and actions for the fulfillment of the programmed information in the investigation; it reflects difficulties and successes of the investigative process.

10. References

"It is the set of works used in the structuring" (Aguilar-Gordón, 2019b, p. 360) of the methodological proposal. The bibliography must be presented in alphabetical order considering the first surname of the author and in the format suggested in the international APA norms in their sixth edition. The works and authors used in the research should be included and "their number should be sufficient to contextualize the theoretical framework with updated and important criteria" (Aguilar-Gordon, 2019b, pp. 358-359).

11. Conclusions

The methodological proposal is one of the mechanisms to achieve a true integration of knowledge, it contributes to the integral formation of human beings; it is an option to obtain a degree and postgraduate degree.
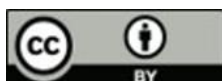
It harmonizes theory with practice; it is of a humanist-scientific-constructivist nature, it tends to social transformation. This work proposes a set of guidelines for the structuring of a critical, creative and innovative methodological proposal.

It is proposed to respond to the reality of the context, to the specific needs of a given community and to complex subjects in a complex society. The methodological proposal becomes a unit in which content, conceptualizations, arguments, concrete experiences, research and real practice coexist, it is oriented towards the solution of problems, to the transformation and to the human improvement.

The methodological proposal is clear and precise; it answers the essential questions: What? Where? How? When? It describes scenarios, problems, and establishes alternative solutions.
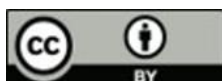
References

Aguilar-Gordón, F. (2010). Percepción y meta-cognición en la educación: una mirada desde América Latina, en Revista Sophia: Colección de Filosofía de la Educación, N. 8, pp. 147-195, DOI: https://doi.org/10.17163/soph.n8.2010.06, Quito-Ecuador, recuperado de: https://sophia.ups.edu.ec/index.php/sophia/article/view/8.2010.06

Aguilar-Gordón, F. (2019a). Fundamento, evolución, nodos críticos y desafíos de la educación ecuatoriana actual, en Revista Actualidades Investigativas en Educación, Volumen 19, Número 1, pp. 1-31, DOI: 10.15517/aie.v19i1.35715, Costa Rica, recuperado de: https://revistas.ucr.ac.cr/index.php/aie/article/view/35715

Aguilar-Gordón, F. (2019b). Normas Editoriales, en Sophia: Colección de Filosofía de la Educación, N. 26. Universidad Politécnica Salesiana, Abya-Yala, Quito, recuperado de: file:///C:/Users/Floralba/Downloads/157-116-PB.pdf

Bullington, J. y Karlson, G. (1984). Introducción al método fenomenológico de la investigación, en Revista Escandinava de Psicología, N. 25, pp. 51-63

Briones, G. (2013). Metodología y técnicas de Investigación para las Ciencias Sociales. Trillas. Cuarta reimpresión. México D.F. México.

Consejo de Educación Superior (CES) (2017). Reglamento de Régimen Académico, en Gaceta oficial, recuperado de: http://webcache.googleusercontent.com/search?q=cache:heo2TY_phLEJ:www.ces.gob.ec/doc/Reglamentos/2017/Abril/reglamento%2520de%2520regimen%2520academico%2520codificacion.pdf+&cd=1&hl=es&ct=clnk&gl=ec&client=firefox-b-d

Delors, J. (1996) La educación encierra un tesoro. Informe a la UNESCO de la Comisión Internacional sobre la Educación para el Siglo XXI. Santillana, Ediciones UNESCO, Madrid-España, recuperado de: www.unesco.org/education/pdf/DELORS_S.PDF

Finol, T. y Nava, H. (1993). Procesos y productos en la Investigación Documental. Ediluz. Universidad del Zulia. Maracaibo.

Hernández, R. (1991). Metodología de la Investigación. Mc – Graw- Hill. México D.F. México.

Carrasco, J. y Calderero, J. (2009). Aprendo a Investigar en Educación. Ediciones RIALP, S.A., Madrid.

Goetz, J. y LeCompte, M. (1988). Etnografía y diseño cualitativo en investigación educativa. Madrid: Morata.

Giordanino, E. (2011). Las revistas científicas: estructura y normalización. Pautas y evaluación, en Acuerdo de Bibliotecas Universitarias de Córdoba (ABUC), Córdoba, recuperado de: https://www.aacademica.org/egiordanino/29.pdf

Lara, R. (1998). Tecnología: Conceptos, problema y perspectivas. Madrid, España: Editorial Siglo XXXI.
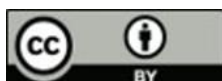
Marchetto, M. (2006). Modelo teórico interpretativo del proceso de investigación desde un enfoque innovador en el IUETAEB. Tesis doctoral. Caracas, Venezuela: USM.

Pérez Juste, R. y otros (1981). Psicología Experimental I. Vol. I, Madrid: UNED.

Reviere, C. y Reviere, O. (2017). ¿Qué es un Diagrama de Gantt? Ed. Calleja, Madrid-España

Torres, J. (2015). ¿Qué es la propuesta metodológica IDEA?, en Iberoamérica Divulga. IBERCIENCIA. Comunidad de Educadores para la Cultura Científica. Universidad Autónoma Chapingo, Texcoco. México, recuperado de: https://www.oei.es/historico/divulgacioncientifica/

Varios Autores (2019). Significado. Diccionario online, recuperado de https://www.significados.com/objetivo-de-investigacion/

Wilcox, K. (1993). La etnografía como una metodología y sus aplicaciones al estudio de la escuela, en Lecturas de Antropología para educadores. Madrid: Trotta.
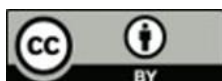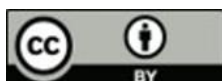
Author

FLORALBA AGUILAR-GORDÓN obtained her PhD degree in Philosophy from Pontificia Universidad Católica del Ecuador, in 1996. She obtained her master's degree in Education of Higher Education by Universidad Tecnológica América, in 2008. She obtained her master's degree in Applied Technology in Education from University de Alicante, the Autonomous Universidad Autónoma in Barcelona and Universidad Carlos III in Madrid, in 2010. She has a master degree in distance education from Universidad Técnica Particular de Loja, in 2010. She has a Diploma in Analytical Knowledge from Universidad Internacional de la Rioja, Spain, in 2016. She obtained a degree as specialist in Curricular Planning and Organization of Distance Education Systems by Universidad Técnica Particular de Loja. She obtained a Diploma in Curriculum and Didactics from Universidad Tecnológica América. She obtained a Diploma in Educational Transformation from Universidad Multiversidad Edgar Morin of México in 2009. She obtained a Diploma in e-learning by el Instituto Tecnológico of Madrid, in 2016. She obtained a higher degree in educational research from Universidad Tecnológica América. She obtained her higher degree in fundamentals of distance education and research by the Universidad Técnica Particular de Loja. She obtained her higher degree in cooperative learning from the Catholic University of Brasilia, in 2002. She has an international tutor certification accredited by the Catholic University of Brasilia in 2004. She obtained a higher degree in technology, management and leadership from the Universidad Tecnológica América. She obtained a degree in philosophy from the Faculty of Human Sciences of Pontificia Universidad Católica del Ecuador, in 1991. She obtained a degree in social, political and economic sciences from the School of Law of Universidad Técnica Particular de Loja, in 2007. She was awarded the title of lawyer for the School of Law of Universidad Técnica Particular de Loja, in 2013.

She is currently a tenured professor at Universidad Politécnica Salesiana. She is editor-in -chief of the journal Sophia: Collection of Philosophy of the Education, edited by Universidad Politécnica Salesiana of Ecuador indexed in more than 60 indexes and databases internationally recognized. She is the coordinator of the research group in Philosophy of Education (GIFE). Member of the Scientific Board and international reviewer of important journals of Ecuador, Spain, Colombia, Uruguay, Chile, Mexico and Costa Rica.