

[Open Peer Review on Qeios](#)

Profile and scientific nature of pedagogy

Lucas Abelardo Palacios Liberato¹

¹ Universidad Peruana Cayetano Heredia

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.

Abstract

Pedagogy is the science of education; the features and qualities that define it as a scientific discipline derive from the singular object of study: education as an objective reality, from the method of pedagogical research and its conceptual theoretical system. The conceptual system product of universal educational research and experimentation contains its laws, categories, principles and scientific features; it defines the method of research and the parameter of analysis, it also serves in the organization and direction of the educational process. Scientific laws reflect the logic, order, regularity of internal links in the educational process. The scientific principles define the experimental character of the phenomenon and/or educational process, and the school as a testing laboratory. The categories reflect the essential aspects and the fundamental links of its process, discovered and demonstrated through various educational experiments, in the laboratory schools of universal history. The method of research itself corresponds to the pedagogical conceptual system, as a subjective (theoretical) reflection of the logic of education. The pedagogical method is not limited to didactics and teaching-learning, it also includes the methodology of educational work that organizes the educational process and context, the regime and lifestyle for the formation of the personality, as a scientific direction of pedagogical practice, inside or outside the school.

Lucas Palacios Liberato

lucas.palacios@upch.pe

Keywords: Education. Pedagogy. Educational research. Educational theory. Pedagogical practice.

Introduction

Pedagogy is the science that studies the most general laws of education, it is the basis of its profile and scientific nature. Education is not, as metaphysics or idealism in general asserts, a simple polysemous term, the object of formal logical and sociolinguistic analysis in the style of Popper. It is not true that pedagogy as a science needs to be constructed or

founded as Piaget claims. The scientific theory of education exists and is very clearly defined in its laws, categories and principles that govern the educational process, and these laws allow defining the method of research, the experimental nature and predictive character of pedagogy. Not only because it constitutes the synthesis of a long universal pedagogical tradition, but, above all, because its conceptual system has been verified, demonstrated and proven in practice through laboratory schools, experimental educational projects and revolutionary innovations in pedagogical science. As demonstrated by the works of Makarenko in the Dzerzhinsky commune and the Gorki colony, Neill in the Summerhill colony school (England), Comenius in *Didactica magna*, Pestalozzi in how Gertrude teaches her children, Rousseau in the *Emilio*, Encinas in a trial of a new school in Puno, Caro Ríos in the coeducation work-study schools of Huayopampa, the experience of Homer Lane, Wahsburne in Winetka's school, the laboratory schools of John Dewey, the modern school of Ferrer Guardia and all the pedagogical experiences of the late 19th and early 20th centuries.

The conceptual system of pedagogy defines a research method as it also determines the predictive character of pedagogy, in that it investigates the laws that describe the educational process, analyze problems and anticipate future consequences in the educational field. The practical, methodical and systematic nature of education defines the experimental character of educational research, insofar as the educational process, the learning of the learner and the teaching practice can be controlled, whose variables are objects of testing and/or manipulation. The experimental character of education is observed mainly in the school, constituting a true laboratory of experimentation, so similar to the laboratories of the natural sciences. However, those who despise pedagogy as a science, the enemies of scientific research of education, continue to argue about the scientific content of pedagogy, about the name of the science of education, on the semantic, linguistic and etymological level out of supine ignorance, rejecting the entire universal experience of pedagogues, schools and educational processes in universal history, rejecting the pedagogical tradition and even the objective reality itself. Therefore, overcoming this Byzantine, formal-logical or sociolinguistic discussion, assuming the universal pedagogical experience, we expose in the present the conceptual system of pedagogy as a science.

I. The object of study: Education

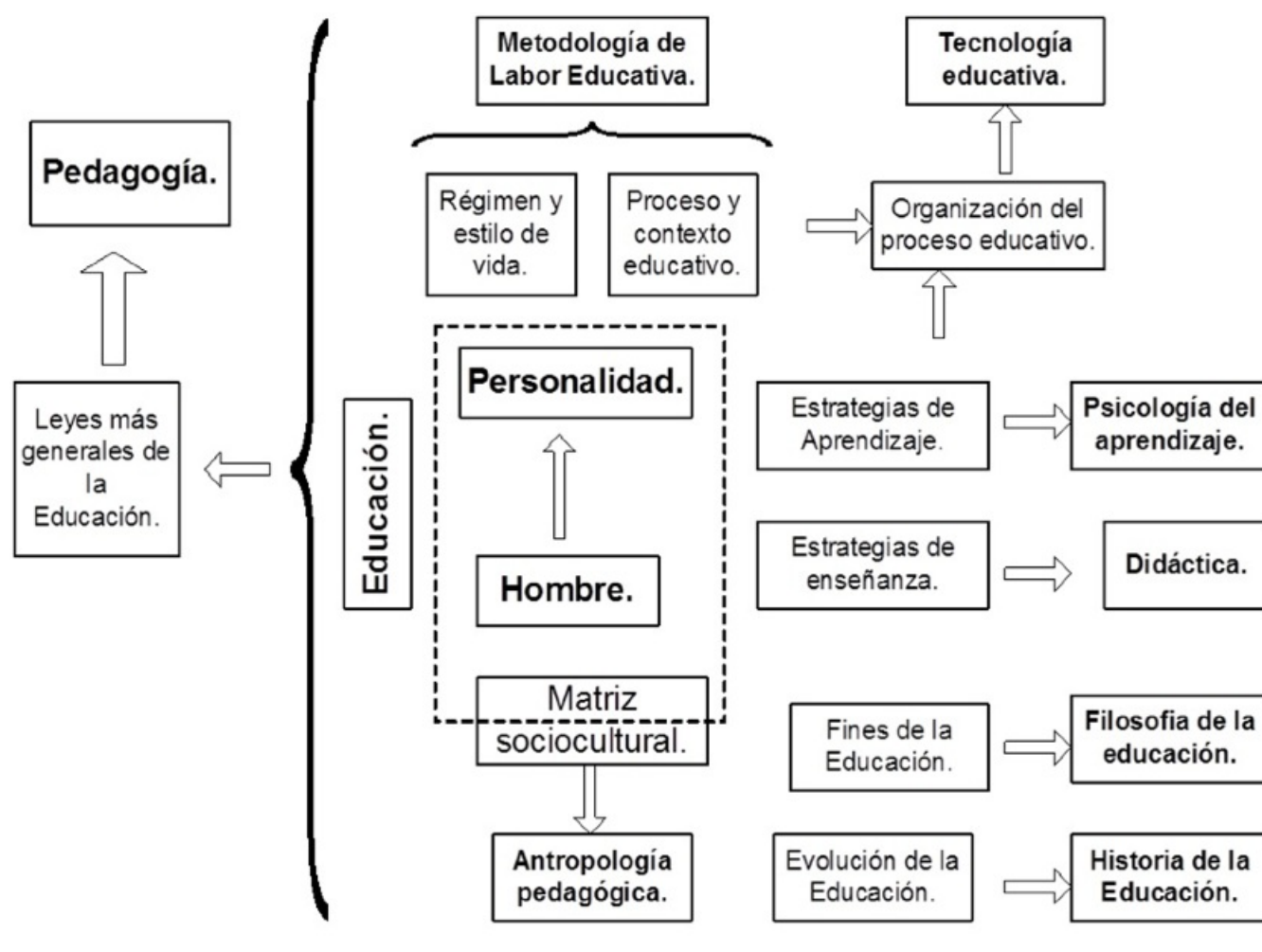
Education is the term or word that designates the social process in the formation of the personality. This concept encompasses the process and context where the personality of children, adolescents and adults is permanently formed or deformed, it refers to the set of phenomena, links, nexuses and socio-cultural relations, the continuous and dialectical process of the socialization of man, by which the adult generation, the collectivity transmits culture and experience to the new generation, by which the individual assimilates the historical social heritage of humanity, peoples and social classes. The mediating element in the formation of man is the educational content, and it refers to all aspects of the personality picture and the objects of school learning, for example, knowledge, "skills" and concepts. Education, as Margaret Mead says, is "The process by which the child yields his physiological autonomy and accepts cultural control, is a very concrete series of operations performed by the cultural agent"¹, that is "The process by which the child yields his physiological autonomy and accepts cultural control, a very concrete series of operations performed by the cultural agent"². The

process by which the child is transformed into an adult, into that complicated individual version of his people and his time. So that, "Whatever the method employed, whether the young are disciplined, trained or carefully instructed, or whether they are left to wander wildly or even harassed by adults, the result will be the same"³, they will be formed as a person by the adults. The young will be formed as a person by the process and the context that involves them, it is not the school that educates but the whole of life.

The social process by which the person is formed is the natural substrate, the organic content of education, it is not an idea or a proposition in abstracto but a material phenomenon that exists outside the consciousness, it is not a concept in the Hegelian sense, nor Plato's pre-existing idea; the concept of education designates and reflects the educational reality, it indicates an essential aspect in the historical, social and cultural construction of man, the constitution of each of the elements and characteristics of the personality picture. For this reason, this is the object of study of research in pedagogical science, a social phenomenon, an object of reality, which needs to be analyzed in a concrete and specific way. Scientific pedagogy establishes a clear difference between education and instruction, the substantial difference between the methodology of educational work and the "teaching-learning process", between education and didactics as diametrically different fields. In general, education does not exclude society, concrete and specific men, nor the means used to train future citizens; it is the concatenation of phenomena, processes, actions, elements and subjects that are part of the continuous educational universe, represented in the concept of education: fundamental category of pedagogy. It also includes the dialectic of the following elements, more often than not ignored,

- The context, as a socioeconomic process in national, regional, local, neighborhood, family, school, play or peer life, the place where education takes place.
- The subject, (man), as adult or young citizens, adolescents and children, depending on the role they play, they assume the character of learner or educator.
- The content, the culture, the ideology, the customs, the values, the capacities, the concepts, the strategies and methods to solve problems, as tools that man develops and assumes for life.
- The method, the particular form of how the process and the sociocultural context imposes the formation of man or of each of its aspects and elements. The pedagogical method is of educational work and instruction.

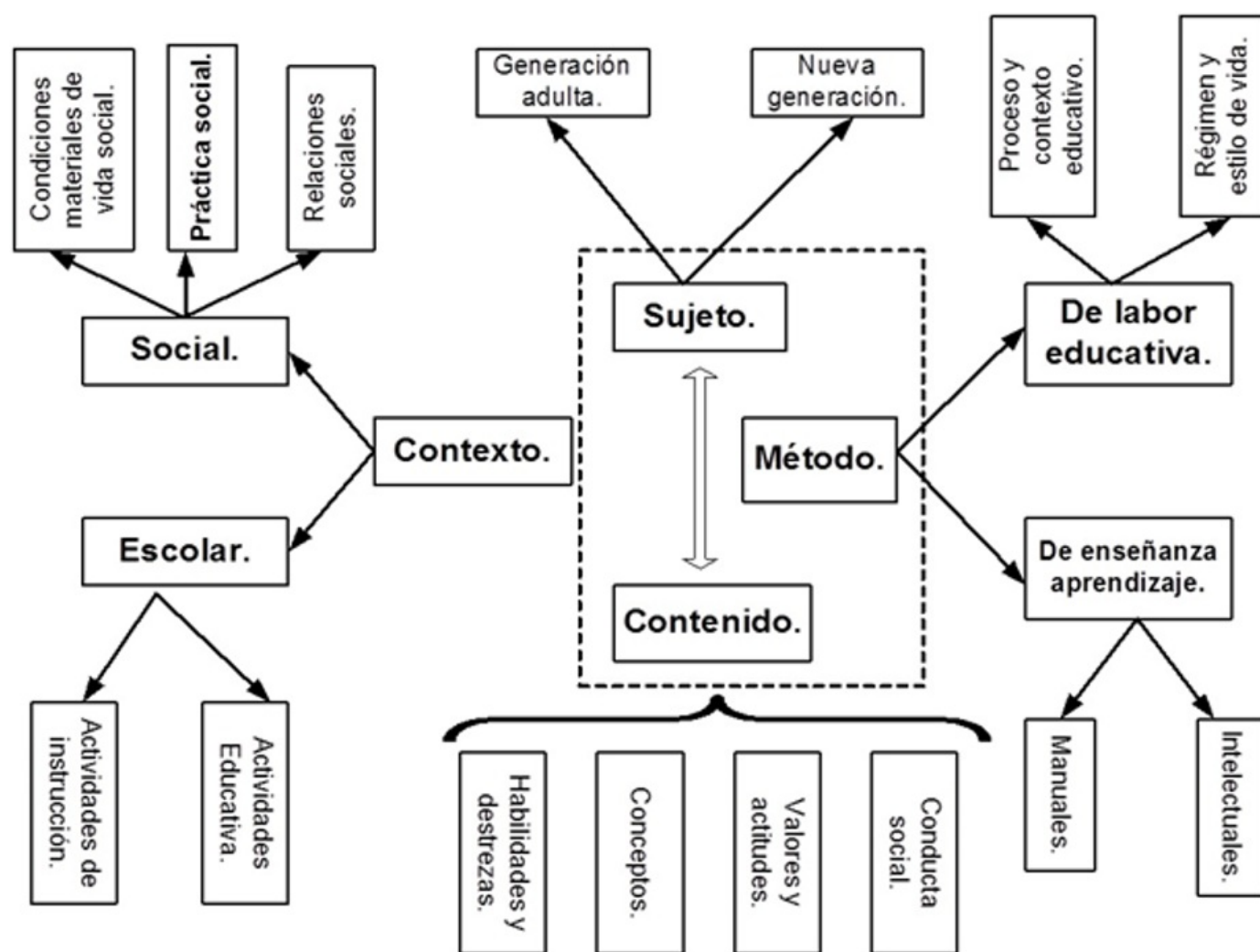
The following conceptual map shows education as an objective reality, a school that does not replace the whole of life, as a historical and cultural experience, it does not reduce society to the school or the classroom, education encompasses the whole picture of personality.



Education as the formation of the personality does not represent an instant in the life of the learner but a process, it is not the resulting product of the adult in his maturity but the whole historical, social and cultural process that encompasses such formation. The statement "You have no education!" is a contradiction for any citizen or learner, because he already possesses a picture or state of formed personality; or the statement "You possess education" is a redundancy or tautology; as Lucien Malson and Itard would say, only idiots or imbeciles do not have personality or have lost it. The formation of man's personality is a continuous process throughout life and a permanent modification or restructuring of human behavior, product of the socio-cultural movement that takes place around the individual and in active relation with him, for the development of his aptitudes and human faculties, the progress of his capacities, or on the contrary the deterioration of human faculties, for example, in processes and contexts of alignment and alienation produced by certain societies through the State or the Media, for example. This answers the question "How does one educate?" through socio-cultural relations (Vigotsky) or "How does one diseducate?" through the same media, including the school (Goodman). Education is not an act or result, but a process that includes all the acts that lead to a certain product.

Thus, the person or the social conscience are in an endless inseparable contradiction, forming the continuous becoming of man, the process of that dialectic is called education, a process that happens invariably, in a way inherent to the existence of man, spontaneously and involuntarily, systematically and directed. Education by its extension designates all the universality of phenomena, facts, relationships, practices, events or educational actions, the process in general; as

Makarenko indicates: "Everything educates", but, by understanding the essential aspect indicates the formation of the person, it deals with the construction of the personality; as from it derives all its properties or qualities, the process and context, the evolution, the movement, the changes, the ways of how they happen. Education is not identical or reduced to one of its singular forms, it is not reduced to teaching, learning, instruction, transmission or assimilation of knowledge. As can be seen in the following conceptual map;



II. The scientific laws of education

1. The law of formation

The law of formation is the universal tendency of the phenomenon or the process of education by which the configuration of man as a person is inevitable and inherent to his existence, in the singular life in each human being means the natural development of his aptitudes, faculties or capacities, the organization of each of his characteristics in a spontaneous way as a social being belonging to a certain culture, people or society. This tendency indicates the inevitable order and regularity in any of the circumstances or material conditions of life, in the different forms, modes or styles of the social,

economic and cultural phenomenon. It is the determining tendency of human education as a substantial part of the social, economic and cultural process and context, indicating its necessity and corresponding logic.

As soon as man is born, being part of a society, a culture, a socioeconomic process and context, he is inevitably formed as a person, in a process inherent to his condition as a social being. No man, under regular and/or normal conditions of human development, is excluded from this condition, except if the individual subject is isolated from a society, a culture, a socioeconomic process and context; as Lucien Malson states,

Man is distinguished from the animal by his premature birth. His personality is elaborated after birth, on a series of cultural matrices, which are as important for his development as the mother's own matrix. It is the affective relationships he has with his mother in the first years of his life that conditions his whole emotional life; it is the learning of language in due time that conditions his whole intellectual life. This means that a normal child from birth can become practically an idiot if the circumstances of his education are unfavorable. It is essential the idea that the personality will develop to the same extent that the environment, for its educational value, offers the child the appropriate cultural subsidies at the right time (Malson, 1973, P, 76)

It is up to educational research to know the order and regularity of these particular circumstances, the concrete details and the specific forms of logic in the formation of a person in singular; being a fact and a universal truth that the human being is inevitably formed as a person in a real and concrete educational process and context, this indicates the necessity and the fundamental logic of education, as a scientific law of pedagogy.

The formation of the person is inevitable to social existence, it is a natural need of man, and defines the regularity of the educational process. The law of formation describes the internal and essential dialectic of education between the process and the context; the inevitability in the constitution of man as a person and the regularity that it indicates, define the logic of knowledge of the educational process in a specific and concrete way; that is, education as a phenomenon or process has no other purpose than the formation of man's personality, this process is education in itself and for itself. The logical development of education is the configuration of man as a person within a culture, a people or a historically determined society, either as a learner or as a citizen of his time. Therefore, all socio-economic, socio-cultural events, all the circumstances of human life educate, and it manifests itself in a singular or specific way in each individual, that is the law of formation, its social, historical and cultural character, which define and determine the characteristics of the person.

There are no legal laws or political actions that prevent the formation of citizens; this quality or determining factor is a natural law in the existence of society and the whole of humanity as an objective reality. From the first moment of man's and society's existence, simultaneously, man became a person of his time and space, whether as tribal members of his community, as slaves or as slave masters, as serfs and vassals or as feudal lords, as working class or as bourgeoisie, as rulers or ruled, without the need to attend school or without the existence of it previously. The logic of formation as a member of a society or as an adult was necessary, regular and inevitable; the States, the social classes can influence it, they can maintain or transform the socioeconomic process and context, but never avoid the formation of the person; it will happen inevitably, against the very will of each individual subject. As Caro Ríos indicates, "The essential foundation of

any school organization is the recognition of the formative-modeling role of education, (that education is the phenomenon by which society spontaneously or systematically exercises the function, role or modeling role of the person), which means that, through a suitably organized educational action, it is possible to model the will, the character, the intellectual, physical, moral, sentimental personality, etc. of the learners. Of the learners".

2. The law of educational action

For education to take place, that is, the formation of the person, it is necessary the action and interaction of the forming factors, daily called influences or educational action. All educational action is a cultural, social or conscious influence, as all these influences or educational actions happen through each personal experience or social practice, by which, "each individual child receives a version of the official culture, highly idiomatic, imposed on its constitution and unique hereditary disposition and giving origin to what we call personality"; the formation of the person happens by educational action, resulting in a diversity and multiplicity of interactions and according to the complexity of each particular society, defining a highly specific or singular process and context, from which man cannot escape during the whole process of his life, all the educational actions and influences will define the singular characteristics of social being, of each individual as such. Thus, in the whole educational process and context, society, economy, culture, States, families, institutions, mass media will exert educational actions tending to model and/or shape the personality of the new generations in their own image and likeness, whether they say it or not, by spontaneous or systematic means.



The law of the educational action is defined by the previous account, from it is not exempt any phenomenon or

educational fact, inside or outside the school, having been foreseen or not foreseen, the educational action will have been effective as action and influence in itself and for itself, because from it derive the development of the habit, the faculty or human aptitude, as all the others, because the social influences are determinant, the social relations assure them, the social practice prepares them, the material conditions of life promote them and the social conscience defines them; the formation of man in general will depend on such educational actions in the necessary space and time, when the influence is effective. Therefore, any educational act is effective if the content and method, the regime and lifestyle that develops it is replicated in the learner, which may depend on the degree of exercise or level of assimilation, its practice, space in the life of the learner. According to Vigotsky, if education depends on sociocultural relations, it is because in them or through them an indeterminate and numerous set of educational actions and interactions happen spontaneously, in circumstantial conditions, in small or simple moments, within the space of time in the life of the learner or the individual.

If we ask ourselves why people represent almost exactly their space and time, it shows that through the whole context and the social process in which the individual has participated, this shows that through the whole context and the social process in which the individual has participated, he is the product of all those actions and interactions that have formed him as such, that he is the natural consequence of that educational action that has marked or sealed him, Even more so if the regime or Status Quo has imposed a process of alienation and alignment on children and adolescents in an attempt to reproduce the Establishment, organizing, sponsoring and promoting all forms of control over their actions and conscience, as developed by the church or religion in their time, and today by the Media and the Internet, for example. In other words, educational action is part of the whole life process, of the socio-cultural context, of the regime and lifestyle, of social relations and social practice; in the end, all educational action ends up forming and modeling people in the image and likeness of the prototype that the school or the State imposes, defining the forms of behavior or conduct as products of education.

3. The law of parallel pedagogical action

Parallel pedagogical action is the law that indicates the specific form of how the educational content is assimilated in general, how a person is really formed, how values and attitudes are appropriated, in a spontaneous and indirect way, unlike didactics when the teacher exercises direct action on the learner in his classes or lessons. Direct action is the opposite of parallel pedagogical action. In education there are two forms of educational action, direct and parallel, from which arises the difference between education and teaching, as education is not reduced to mere teaching. In this regard, Lucien Malson says, "It is not the educator himself who educates, but the environment", or Makarenko in this regard, "It is not the educator who educates, but the environment". In this regard Makarenko says, "Neither my conversations nor those of any pedagogue could do what a proud and well-organized collectivity could do". The educational action happens through the collectivity and not directly as a consequence of the conversation, since the collectivity becomes the appropriate context for educational action, diametrically opposed to the theory of groups, very widespread in school work.

"What do I understand by parallel pedagogical action? In that we only relate to the detachment. In that we do not deal with isolated individuals. That is the official formulation. In essence, it is precisely the way of influencing the

individual. But the formulation goes parallel to the content. In practice we work with individuals, but separately, but we claim that we do not deal with them particularly" (Makarenko, 1976, p. 86)

The educator directs, guides or advises the collective, does not directly command or command each individual separately, but indirectly influences the individual, while exerting action on the collective. Observe the following graphic,



In the pedagogical practice, other than the class or lesson in the school classroom, the educator exerts influence on the learner indirectly, through the organization and direction of educational activities, in them the law that regulates them is the parallel pedagogical action, as happens in everyday life, when the individual is educated spontaneously through the set of tasks, activities and / or experiences that develops, performs, participates or experiences, through relationships with peers or adults, during the activity or company. As Makarenko points out

"In the country of the Soviets, the influence of education is experienced not only by the child, the schoolboy, but also by every citizen at every step. This education is instilled in him sometimes under specially organized forms and sometimes under forms of a coarse social influence. Each of our affairs, each campaign, each process operating in our country, always carries with it not only special tasks, but also educational missions" (Makarenko, 1976, p.25)

In parallel pedagogical action the appropriation of values, attitudes, behaviors or practices does not require classes or teaching lessons or school tasks, the assimilation of educational content happens in parallel to the participation and execution of social activity; the educational influence happens through the task, the collective; it is the most dominant form of education of all human life, for which a school, teaching action, is not required in the formation of the person, thus happens spontaneous education that ends up forming the personality in a way inherent to life itself. By parallel pedagogical action, the assimilation of the corresponding educational content is indirect, this form of education is dominant where there is no school or teaching work; it explains why and how does the formation of the person and values take place? Spontaneously, when man does not attend a school, when he does not receive some form of teaching action,

an instructive process. It is the regular and necessary form of the non-school educational process.

4. The law of active and conscious assimilation

The mediation of school educational content, academic learning, happens by conscious and active assimilation, this is the law that regulates the school task and the teaching action; it is proper to human learning, the conscious form of media or instructive education. To understand it we need to define learning as a form of behavior modification or behavior modeling, it does not include the formation of the person, the development of values; the conscious and active assimilation indicates the nature of learning of the individual subject, the so-called meaningful learning of today, by which certain didactic strategies and diverse learning methods used by the learner ensure the assimilation of the school educational contents. That is to say, the law of conscious and active assimilation corresponds to the governance of didactics, teaching-learning processes, teaching strategies and learning methods; particularly to the school task or teaching practice, oriented to the assimilation and transmission of knowledge, to the development of competences and the formation of concepts in learners. This form of education is of greater domain and knowledge, to which almost all literature and research refer, as it has been conventionally accepted to identify education as learning, reducing education to the modification of behavior, to the strategies to solve life problems, to the development of human capacities, faculties and aptitudes, the formation of the concept as contents of the instruction or the school task.

It is called conscious and active assimilation, but not teaching-learning, since the mechanism defines the subjective appropriation of certain forms of content defined in a study plan or curriculum; where the learning of the learner, in his passage through the school, is the fundamental purpose, for which it is necessary to awaken the consciousness of the learner and/or simultaneously carry out a certain activity that makes such assimilation possible. To awaken the social conscience of the individual subject could be related to the "motivation" or the assumption of the learning objective, for which a singular activity is necessary that makes it possible to experience learning, as a subjective phenomenon, proper to the individual or personal conscience. As this organic and internal mechanism to the conscious activity is not mediatic but the natural and spontaneous form of human learning in general; that is to say, the conscious and active assimilation is the law that governs learning as a quality of the individual subject, which happens through all human activity and social consciousness, which modifies the experience, restructures the practice of the human being; that learning is a conscious phenomenon and depends on an activity, which is regulated by the consciousness and which at the same time modifies it; it defines the dialectic of human learning.

III. Concepts and categories

It is not the objective of this work to present all the concepts and categories of pedagogy, this would require an encyclopedia, for now it is enough to indicate the essential and elementary in terms of substantial difference with respect to other disciplines such as psychology of learning, philosophy or sociology that try to explain some circumstantial phenomena with good intentions or treat the topics tangentially with respect to their fields of study. In addition, there are

thousands of educational investigations and experiences to which we must refer if we wish to have a scientific theory to organize and direct education correctly, under certain economic, social and cultural conditions, which history and peoples demand, to find specific forms of education and innovative scientifically based strategies according to the economic, productive, social or cultural demands of peoples, because the educational process is inherent to them, it is not alien or different from human life. From it comes, for example, the law of indissoluble unity between economy and education, the law of correspondence between society and education, the law of unity between education and culture.

Within the conceptual system of pedagogy we find a set of categories and concepts that designate links, fundamental and essential aspects of education, such as the concept of pedagogy described here, the concept of "school", instruction, learning, didactics, educational technology, learning project, evaluation, learner, educator, educational content, educational work, etc. And, fundamentally, as we have already explained, the concept of education as a process inherent to man's material existence, a phenomenon that occurs throughout life, from the first day of birth to the last moment of life. As Kilpatrick points out "...despite our academic prejudices, learning outside school is still the essential kind of learning, which has always been and still is in quantity and importance and probably in quality the most important learning we do". Man is not born but is made, education shapes his personality, the development of all social and individual characteristics as a human being is a product of education. Thanks to education, the human being becomes a person, a citizen.

IV. The active principles of learning

The process of how man learns in social life, through his experience or in productive activity, is the opposite of how idealism and metaphysics have tried to explain the form of bookish, academic learning, memorization or simple transmission of knowledge. John Amos Comenius was the first to summarize and formalize these principles in his "Didactics Magna", that man learns by doing throughout his life, from birth, when walking, talking, eating, etc.; that the adult or teacher teaches him to learn by guiding, accompanying or facilitating his learning by indicating the procedures or operations; that he learns to learn when he manages to master the work strategy, that he has learned with the help of the teacher, and then he is able to modify the learning strategy or create his own work method.

1. Learning by doing

We learn to walk by walking, to investigate by researching, to read by reading. More than 70% of human skills inherited by man are the product of active learning. We learn by doing.

"On other occasions, in relation to country walks, and always from a utilitarian point of view, children learned to overcome obstacles, to shorten distances, to climb walls and trees, to pass ravines, to descend slopes, to climb summits, to appreciate distances, to know the sinuosities of a terrain, to cushion fatigue, to rest" (Encinas, 1932)

2. The one who teaches how to learn

It is up to the person who masters a strategy, technique, procedure or method to indicate the execution of the operations, procedures or activities in their logical order for the development of such strategies or competencies; that is, that the educator or teacher teaches how to learn. The objective is that the learner or apprentice masters the corresponding technique or method.

"We must not and cannot take this order, which we pretend to be the universal idea of the art of learning and teaching all things, from any other part than from the teaching of nature (...) and observing the procedures that nature follows in its operations, we will try to proceed in a similar way" (Comenio, 1998)

3. Learning to learn

When the learner masters a strategy, be it any of them, that he/she has learned by doing, that has been guided by his/her teacher; the learner or apprentice will be able to modify and create new strategies based on them. At this stage the learner is creative, he learns new ways of learning with his own strategies that he masters and manages. He is able to learn to learn by himself.

"In everything that has to be imitated, the first copy (at least) has to be made by faithfully following the model until, with his hand, tongue or intelligence already exercised, he can imitate it with the greatest freedom and gets used to carry out the work by his own ingenuity" (Comenio, 1998)

These are not the five pillars that Delors indicated in the UNESCO report, but the scientific principles obtained in the evolution of pedagogy, applied during the new school movement of the late nineteenth and early twentieth centuries.

V. The pedagogical method of research

The scientific method, indicates the dialectical logic, is the subjective image of the laws of the object under study; pedagogical research must be guided by its conceptual system, by its laws, categories and principles, the rest of the procedures, techniques or research methods are adjusted to them; the conceptual system dominates the analysis of the object of study as scientific knowledge. The unity of the subjective and the objective in the conceptual system means that pedagogy as a theoretical discipline corresponds in an approximate way to the educational reality; any other theory or conceptual system deviates it from its object of research. The scientific logic of education defines the scientific research method of education, as in any scientific discipline, as pedagogy summarizes the logic of education, the laws governing educational phenomena. Consequently, the pedagogical method of scientific research in education is defined by its conceptual system, in accordance with the laws of pedagogy that describe the educational reality. The opposite is metaphysics and vulgarity, reading pseudo educational researches that do not master the concepts of pedagogy, do not deal strictly and specifically with the educational phenomenon, but in a tangential way and more often than not with political opinions that bypass it. The pedagogical method of scientific research is constituted by the laws of education, as

the object of study of pedagogy. All these pseudo-researches in education constitute failed attempts to explain the inexplicable, speculative ways of distorting and misrepresenting the educational reality.

When investigating the educational phenomenon, the researcher proceeds in the same way that the logical processes indicate, that the concepts describe, inasmuch as they refer to the objective reality of education; that is, the method of scientific research in education proceeds in the same way that the logical necessity of the educational phenomenon or process indicates, it cannot be different from it. As the physicist operates in the physics laboratory, or the chemist in the chemistry laboratory; the pedagogue operates inside the school and not outside it, so he truly understands the organic and internal nature of the phenomenon of learning, for example. Scientific activity involves the ascending process from the abstract to the concrete, the researcher in education starts from the previously known pedagogical conceptual system and not the other way around; the conceptual system is the starting point, the knowledge of the laws, principles and categories of pedagogy, not only to propose the project, but also to analyze the results of the research.

In the scientific research of pedagogy, for example, the difference between educational work and teaching-learning process, between education and instruction, between personal training and learning as development of capabilities, among others, must be clearly distinguished; otherwise, the research will be totally arbitrary. Thus, the methodological operationalization of the research design is clearer and more precise in order to define the procedures, techniques and research instruments.

1. The predictive function of pedagogical theory

Any deficiency, failure or stigma of the educational system in the world is not, for any reason, a consequence of lack of scientific knowledge of education, although the conceptual system of pedagogy is not totally finished or of absolute truth; the failures and deficiencies, mainly of school education come from educational policies, from the interests and needs that are imposed on the purposes of the school in the education of the new generations, against pedagogical principles. They are failures of educational policies, of educational systems, not failures of the discipline or pedagogical science.

Pedagogical theory is the result of educational practice and research, the product of educational experimentation and the school throughout history; on the contrary, if it were based on the scientific theory of education, future consequences could be anticipated, predictions could be made, as happens with any other scientific discipline; the pedagogical researcher would be in charge of it, to study, analyze or investigate the educational reality, to innovate the pedagogical practice, but this logic is definitely not fulfilled.

However, throughout the history of mankind, educational theory is the result of thousands of experiments implemented by all States and peoples, in the need to train their new generations, in an attempt to shape their citizens by enriching pedagogy and school; Therefore, the prediction of pedagogical science should result as a consequence of the review of the treaties of education, of the reports of pedagogues, of the story of its protagonists, and not as often happens by the speculations of philosophers and ideologists of the moment, ignoring the experiments that history provides. At some point education will follow the scientific direction in the formation of man, in the meantime pedagogical practice will be hidden in the school, as a teaching activity nothing more, innovating by trial and error, without a suitable scientific research, nor the

need for prediction.

2. Educational activity as a laboratory of experimentation and research

The teleological character of education indicates how peoples, states or adults have arbitrarily established the aims and purposes of education at every moment and circumstance, although this imperative need is flatly forgotten; the conscious and rational direction in the formation of new generations is an innate condition of any society, children and adolescents have been and are mainly objects of multiple and varied educational experiments, inside and outside the school. Mainly the intellectuals and politicians of the day have been in charge of such arbitrary experiments, defining "what to do" in the school, defining the curricula, the internal norms of the schools or simply establishing political constitutions for the country, all of them forms of control and systematic manipulation of the social relations between the people of a territory, for example. The will of the learners, for example, is a utopia only of romantics and literati; educational activity within the school functions as a true laboratory in permanent pedagogical experimentation. Hence, to say that educational research is definitely not experimental research is pure cynicism that denies objective reality.

The changes in school systems, curricular plans, teaching methodologies and internal school norms, impose new experimentations, what is needed is to establish "before" and "after" tests, the systematic follow-up of their development, since the control variables are defined beforehand. The constant and sometimes abrupt changes made by the adult community, the states, the social classes, the social and cultural institutions about the purposes, models of person, contents, values, strategies in the formation of the new generations, turns the educational activity into a process under control and manipulation, into a laboratory of experimentation of education.

That adults decide where, how and for what purpose to raise children, how to care for or protect them, what styles, modes, customs or social rules to "impose", that states dictate laws that regulate the ways of life of peoples, that states protect, promote and sponsor certain cultural patterns, they determine the variables of experimentation in the education of man, as an object of control and systematic manipulation of the environment, of the content and method of education; the subject of education is the object of experimentation. Just as educational activity is a permanent testing laboratory, educational research is experimental by its nature and character.

3. Specificity of the pedagogical task and research

Consequently, to investigate a set of educational phenomena, to experiment them, to face their peculiar problems, to define the specific character of the pedagogical activity and its science, constitute complementary and underlying tasks, never opposed or contradictory. Those who work on the order and regularity of the educational phenomenon are educators and teachers (both different), those who define the pedagogical laws, principles or scientific protocols are the researchers, the scientists who undertake the study of the singular educational phenomenon in its peculiar and specific form or mode; educators, teachers and researchers work in parallel and simultaneously on education in particular, on its necessity and regularity. But this reality, which should be the ideal of pedagogy, nobody respects it, nobody demands it or recognizes it as such; at every moment it emerges from nowhere, as in the dimension of chaos, wise men and experts in

education discarding any logic or valid reason.

Educational research serves to know them, schools to experience them, and the teaching professional to develop techniques, experiences and innovations, as real, concrete and specific educational processes; this task does not correspond to historians, philosophers, sociologists or anthropologists; the disciplinary task of the object of education corresponds to pedagogues, beyond the teaching task that is dedicated to the transmission and assimilation of educational content. The organization and direction of education should correspond only to educators, unfortunately this is not the case, who for obvious reasons have eliminated the conceptual system of pedagogy as a science; furthermore, teachers endorse it, considering that other disciplines, such as psychology, should direct them. This is the question that the present work hopes to resolve, overcoming metaphysics, subjectivity and the dominant vulgarity regarding the nature and scientific character of pedagogy; inasmuch as education and pedagogy have developed in parallel to the dominant theoretical version with its own process of analysis, abstraction and generalization of its object of study: education as a phenomenon or process of objective reality.

In the social reality it is impossible to find a pure educational process totally detached from the productive, economic, social and cultural phenomenon; education is an aspect of productive, economic, social and cultural activity. Education constitutes the substantial aspect of human existence as the formation of the person, to ignore it has led to reduce it to mere teaching; education is a substantial aspect of the economic, social, historical, cultural or productive process; education considered as something isolated, in abstraction, is only a consequence of conscious activity, by abstraction, it is a strictly mental fact, it does not exist as a "pure" object or phenomenon. The different scientific disciplines of the social sciences study man and his relationship with education, but their object of research is not education, it corresponds to pedagogy, the disciplinary sources belong to pedagogy.

Education is present from the first moment of human existence, of the development of society; that only with the bourgeois revolution, education was declared free, universal and compulsory, it refers to school education, to teaching, but not to education itself, this also refers to the "school" as a specific category of pedagogy; In the past, the school could have been the workshop, the farm or the home, but not an institution isolated and distinct from the productive institutions as it is today, because education was underlying and consubstantial to the whole social life of man. So that today the school has developed to the level of institutions of scientific training and technological experimentation, as a strictly rational or thinking process, in buildings isolated from the rest of human life, does not imply that education does not continue to be inherent to human life tending to the reproduction of society and the dominant culture, as if it only happened in school, that is idealism or metaphysics.

What is needed is not a scientific attitude in education but to recognize the contributions of pedagogy, its conceptual system and the experience of the school throughout human history; that pedagogy is the science of education, and pedagogues or specialists in education are not philosophers, sociologists or psychologists. That education does not happen only in the school building but in the various institutions, processes and events of production, economy, culture and sociocultural social relations as Vigotsky states.

Footnotes

¹ Lawrence K. Frank, "Control cultural y autonomía fisiológica", en *Personalidad de Kluckhohn*. Pag. 137

² Margaret MEAD, "Educación y Cultura". Pág. 9

³ Ibid, Pág. 161

References

- Agudo, M.; (1931) "El plan Howard". Publicaciones de la Revista Pedagógica. Madrid.
- Bonvechio, C.; (1980) "El mito de la universidad". Siglo veintiuno editores. México.
- Caro Ríos, G.; (1965) "Escuelas de estudio y trabajo en coeducación". Editorial Pedagógica Asencios. Lima.
- Carraher, T. y otros; (1991) "En la vida diez, en la escuela cero". Siglo Veintiuno editores; Méjico.
- Comenio, J.; (1998) Didáctica magna. Editorial Porrúa. Mexico.
- Dewey, J.; (1948) "El niño y el programa escolar". Editorial Losada. Buenos Aires.
- Encinas, J.; (1932) "Un ensayo de escuela nueva en el Perú". Imp. Minerva, Lima.
- Ferrer Guardia, F.; (1976) "La escuela moderna". Ediciones Júcar. Madrid.
- Freinet, C.; (1971) "La escuela popular moderna". Retablo de papel ediciones. Lima.
- Kilpatrick, W.H. y otros; (1967) "El nuevo programa escolar". Editorial Losada. Buenos Aires.
- Makarenko, A.; (1976) "Poemas pedagógicos". Editorial Progreso. Moscú.
- Makarenko, A.; (1976); "Banderas en las torres". Editorial Progreso. Moscú – 1976.
- Malson, L. y Itard, J.; (1973) Los niños selváticos y Memorias sobre Victor de L'Aveyron. Alianza Editorial. Madrid.
- Neill, A.S.; (1986) "Summerhill". Fondo de Cultura Económica, México.
- Neill, A.S.; (1994) "El nuevo Summerhill". Fondo de Cultura Económica, México.
- Palacios, L; (2004) "La concepción dialéctica en la educación de la persona y los valores". Asociación Educativa Vigotsky. Lima.
- Peñaloza, W.; (1989) "La Cantuta", una experiencia en educación"; CONCYTEC. Lima.
- Robinson, J. y otros; (1974) "Educación en china". Ediciones Periferia. Buenos Aires.
- Tolstoi, L.; (s/f) "La escuela de Yasnaia Poliana". Editorial TOR. Buenos Aires.
- Washburne, C.; (1968) "Winnetka". Editorial Losada. Buenos Aires.