#### The pedagogy of Action Research

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#### **Abstract**

During the last decades, action research has been used in different ways, to different ends, giving rise to a mosaic of theoretical-methodological approaches, inviting us to reflect upon its epistemological essence, as well as upon its possibilities as an investigative praxis. This article promotes reflections about the appropriateness and possibilities of action research as a scientific and pedagogical instrument, hinting at answers to the following questions: should action research be essentially targeted at the participative transformation, where subjects and researchers interact in the production of new knowledge? Should it take on a formative-emancipative character? Drawing on existing research and studies, the text tries to compose a pedagogical process for action research that tackles the issue of the coherence between the ontology and the epistemology envisaged for the research. It was thus necessary to establish references for the questions: what research do we talk about when we refer to action research? Or even, what action do we talk about when we refer to action research? Or still, how do research and action come together in the pedagogical practice of action research?

The present work highlights the fact that action research, structured according to its generating principles, is an eminently pedagogical research, under the perspective of being the pedagogical exercise, configured as an action that scientificizes the educative practice starting from ethical principles that have in sight the continual formation and emancipation of all subjects of the practice.

#### Keywords

Educational research – Action research – Pedagogical practice – Epistemology.

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During the last decades, action research has been used in different ways, to different ends, giving rise to a mosaic of theoretical-methodological approaches, inviting us to reflect upon its epistemological essence, as well as upon its possibilities as an investigative praxis.

There is wide consensus in attributing the origins of action research to the 1946 work of Kurt Lewin, in a post-war context, and inside an experimental, field study approach. His works on action research were developed while he was employed by the North American government, and the purpose of his initial studies was to change food habits of the population and also their attitude towards ethnical minorities. Those studies were guided by a set of values such as: the construction of democratic relations, the participation of subjects, the recognition of individual, cultural and ethnical rights of the minorities, the tolerance of divergent opinions, and also the assumption that subjects change more easily when driven by group decisions. His researches moved in parallel to his studies about the dynamics and functioning of groups. His way of working with action research was to see great advance in the companies involved with organizational development.

This initial concept of action research within an experimental, field work approach becomes fragmented during the fifties, and is structurally transformed since the eighties when it includes among its assumptions the dialectical perspective through the incorporation of the principles of Habermas' critical theory, and adopts as its purpose the improvement of the teaching practice. The studies by Elliot and Adelman, working in Great Britain at the Centre for Applied Research in Education under the Ford Teaching Project (1973–1976) were instrumental to such change.

The present article shall highlight the fact that, since Lewin and after different theoretical incorporations to the concept and practice of action research, many interpretations

have been made in the name of action research, giving birth to a mosaic of methodological approaches, which often materialize in the research practice without the necessary elucidation of their theoretical basis, engendering inconsistencies between theory and method and compromising the scientific validity of the studies.

## What research do we talk about when we refer to action research?

If someone chooses to work with action research, he or she certainly believes that research and action can and should walk together when one intends to transform the practice. However, the direction, the meaning and the intentionality of this transformation will be the axis of the characterization of the approach to action research.

I have observed in recent works of action research in Brazil at least three different conceptions:

- a) when the search for transformation is requested by the reference group to the team of researchers, the research has been classified as *collaborative action research*, in which the researcher's function is to be part of, and make scientific a process of change previously started by the members of the group;
- b) if the transformation is perceived as necessary after the initial work of the researcher with the group, following a process that emphasizes the cognitive construction of experience, supported by collective critical reflection with a view to the emancipation of the subjects from the conditions regarded by the collective as oppressive, the study takes on the character of being critical, and then the description of critical action research has been used;
- c) if, on the contrary, the transformation is

planned beforehand without the participation of the subjects, and only the researcher will follow its effects and evaluate its results, this research loses the condition of being a critical action research, and may then receive the label of strategic action research.

Kincheloe (1997) says that the critical action research rejects positivist notions of rationality, objectivity and truth, and should take on the exchange between personal and practical values. In part this is due to the fact that critical action research does not intend to solely understand or describe the world of practice, but to transform it.

The condition for a critical action research is delving into the praxis of the social group under study, whence the latent perspectives, the hidden, the unfamiliar that give support to the practices are extracted, and the changes will be negotiated and managed in the collective. Along these lines, the collaborative action researches many times also take on the character of being critical.

However, we can still see inexperienced researchers make use of action research to implement projects or proposals devised only by themselves, or many times even applying a proposal for change conceived by someone above them in the hierarchy. In this case, the critical and dialectical dimension of the research is being denied. The critical action research must generate a process of reflection – a collective action where there is unpredictability in the strategies to be employed. An action research within positivist assumptions is highly contradictory with a critical action research.

The critical action research considers the voice of the subject, her perspective and meaning, but not just for the record and later interpretation by the researcher; the voice of the subject is part of the fabric of the research methodology. In this case, the methodology is not compose of steps in a method, but organizes around the relevant situations that emer-

ge in the process. Hence the emphasis on the formative character of this modality of research, for the subject must take conscience of the transformations that occur with himself and in the process. That is another reason why this methodology takes on an emancipative character: because through the conscious participation the subjects of the research have the opportunity to free themselves from the myths and prejudices that organize their resistance to change, and reorganize their self-images as historical subjects.

Based on these first reflections we can ask: should action research be essentially a research targeted at transforming the reality in which it is immersed? Should it be a research fundamentally participative, where subjects and researchers interact in the production of new knowledges? Should it take on a formative-emancipative character? Answers to these questions are still not consensual, but we shall try an approximation, so as to uncover clues to the question: what research do we talk about when we refer to action research?

If we go back to the origins of action research with Kurt Lewin, and following the comments by Mailhiot (1970: 46), who was his student and collaborated with him, action research should start from a concrete social situation to be modified, and more than that, it should take constant inspiration from the transformations and new elements that arise during the process and under the influence of the research. On the other hand, and still according to Mailhiot, based on the Hegelian conception of the social becoming that influenced Lewin's thought, the latter puts forward the hypothesis "that the social phenomena cannot be observed from the outside, in the same way that they cannot be observed in a laboratory, in a static way". To Lewin, the group phenomena do not reveal the internal laws of their dynamics "except to the researchers prepared to engage personally and in depth in this ongoing dynamics, to respect its evolution processes in the definite sense that History gives them, and thus best encourage it to go beyond itself". Mailhiot (1970: 47) still says that, according to Lewin, the researcher should only try to modify the dynamics of a group after the explicit consent of its members. In this way, according to Lewin, the researcher must take on constantly the two complementary roles: of a researcher and of a participant of the group. Another important alert from Lewin, as noted by Mailhiot, is that to keep the pace of participation of the members of the group it is essential that the groups and subgroups are aware of the dynamics inherent to the evolving social situation<sup>1</sup>.

It can be observed that the origins of action research with Lewin identify an investigation that moves towards the transformation of a reality; an investigation actively committed to the participation of the subjects involved in the process, making it a task of the researcher to take on the double role of researcher and participant, and also signaling to the necessary dialogic emergence of the subjects' conscience, in the direction of a change in perception and behavior.

Therefore, if we consider the initial proposal, when we talk about action research we would be assuming a research of transformation, participative, moving towards formative processes.

But according to Kemmis (apud Côte-Thibault, 1991, p. 169) action research has been the object of interpretations and changes that modified Lewin's original conception: two 1946 articles by Lippit and Radke, and another article by Chein, Cook, and Harding of 1948 present action research in positivist terms, and with that hamper its potential for development along Lewin's initial direction. These authors distinguish four varieties of action research: the diagnostic action research; the participative action research; the empirical action research, and the experimental action research. It is worth noting that these four varieties were present in Lewin's proposal in an integrated way, and that this subdivision progressively allowed the defacing of the integrative processes found in the Lewinian proposal, producing, on one side, the multiple approaches to this form of research, and on the other, its disfiguration in terms of its epistemological roots. Perhaps, this is the birth of the difficulty in answering the question: what research do we talk about when we refer to action research?

In the following decades, action research will gain strength within the educational field; however, it followed a simplified model when compared to Lewin's proposal, and it fitted within a positivist perspective. Two articles typify this period: one by Stephen Corey in 1949, and the other by Taba and Noel in 1957. Both sought ways of improving the teaching practice and the educative results. Methodologically speaking, these works were more based on a researched action, where they started from the identification of problems at school, sought their causal factors, formulated intervention hypotheses, applied the actions with the teachers and evaluated collectively their results. It can be noticed in this case that the researcher plays an investigating role, but the teachers are not lifted to a position of researchers; however, they changed their actions and reflected upon the results.

It can be seen that the spiral cycle, which, quite important to Lewin, allowed adaptations and changes in direction along the process, ceases to exist. There are several ways to view the "cyclic spiral", seen as a process of reconsidering the actions, analyses, and reflections in an everevolving dynamics. Kurt Lewin (1946) thought that action research is a spiraling process involving three phases: 1. planning, including the mapping out of the situation; 2. decision-making, and 3. fact-finding about the results of the action. This fact-finding must be incorporated as a new fact in the subsequent phase of reconsidering the planning, and so on.<sup>2</sup>

In these cases, the idea of transforming reality remains, albeit in localized form, in some aspect of reality deemed as relevant. The focus

**<sup>1.</sup>** Cote-Thibault (1991, p. 167) expresses it by saying that: "La rechercheaction était à ce moment un essai, pour Lewin, d'incorporer systématiquement la conscientisation de groupe dans un processus de recherche".

<sup>2.</sup> I shall not dwell on this aspect any longer, because it is not the object of this work, however, the notion of cyclic spiral is implied in the reflections made here

shifts from the process to the product of the change. There is no denying that the teachers involved could benefit from the collective analysis of the results, or even from taking part in the planned changes. However, the perspective was lost of a research process creating in the practitioners new forms of perceiving and dealing with the situation, forms that would become themselves objects of the research; the interconnection between research and action was lost. Stanford (apud Cote-Thibault, 1991) when commenting the decline of action researches in education in the late 1950s, speculates that this may have happened because of the gradual dissociation between research and action. I believe that this dissociation is typical of the positivist outlook, which, as I have already mentioned citing Kincheloe, is incompatible with the intentions of action research.

In this sense, Barbier (2003) is quite emphatic when saying that the nature of action research is essentially different from the usual manner of research in the social sciences, and cites Blum (1955) making use of a speech by Dusbot:

[...] action research is the revolt against the separation of facts and values [...] it is a protest against the separation of thought and action, which is a legacy of the 19th century 'laissez-faire'. (1987, p. 136)

When talking about action research we therefore talk of a research that is not based on the positivist epistemology, a research that presupposes the dialectical integration of the subject and his existence, of facts and values, of thought and action, of researcher and researched.

But action research would, historically, return to the realm of research in education, now incorporating the dialectics of social reality and the fundamentals of a critical rationality based on Habermas.

As already mentioned, Kemmis (1984) attributed the reappearance of action research

to the works conducted by Elliot and Adelman at the Centre for Applied Research in Education of the University of East Anglia, Great Britain, under the Ford Teaching Project (1973-1976). These studies were inspired on Lewin and Stenhouse, and were characterized by a proposal of resolution of problems based on a pedagogical approach, methodologically carried out through induction and discovery.

To answer to the question: what research do we talk about when we refer to action research, it will be important to consider that, according to Carr and Kemmis (1986), the change that took place in the 1970s was very different from that occurred at the end of the 1940s, and the reasons are the following:

- the great concern of researchers in education to help teachers to solve their problems;
- the great development of the qualitativeinterpretive approaches to research in education;
- the advancement of the study on collaborative forms and models in the development of school programs and education assessment;
- the ideological and political commitment in the ways to approach the social and political problems in education.

From such considerations it can be seen that the continuity of the action research proposal, starting with Lewin, happens through Stenhouse and materializes with Elliot and Aldeman. They also seem to endorse the epistemological statute of this form of investigation, and the issue of social transformation, now reinforced by ethical and political commitments, with a view to the emancipation of the subjects from the conditions that obstruct this process, and configured by interpretive analyses approaches. Structured under the form of critical participation, the research process should allow reconstructions and restructuring of meanings and paths throughout the process, fitting into an essentially pedagogical, and therefore political, procedure.

In a recent work on the specificity of Pedagogy as science of education, I say that (Franco, 2003) "the objective of pedagogy as science of education will be the reflective and transforming explication of the praxis" (p. 83). To fulfill this objective I reckon that the field of knowledge of pedagogy will be constituted at the intersection of "the searching knowledges of the practices, the dialoguing knowledges of the intentionality of the praxis and the knowledges that answer to reflective questions formulated by this praxis" (p. 85). Along these lines, to make this specificity of the science of education operational, 1 highlight the need for a methodology of a formative and emancipative character, that follows certain principles, which I call founding principles, indicating that the investigation about the educative practice should consider:

- the joint action of researcher and researched;
- the conduction of research in the environments where the practices take place;
- the constitution of conditions for selfeducation and emancipation of the subjects of the action:
- the establishment of commitments to the formation and development of critical-reflective procedures about reality;
- the development of collective dynamics that allow the setting up of continual references, evolving in time, in the direction of apprehending the meanings constructed and under construction;
- reflections that act in the perspective of overcoming the conditions of oppression, alienation and subjugation to routine;
- collective resignifications of the understanding of the group, articulated with the sociohistorical conditions;
- the cultural development of the subjects of the action.

The point I would like to make is that action research, structured within its generating principles, is an eminently pedagogical research, under the perspective of being the pedagogical exercise, configured as an action

that scientificizes the educative practice based on ethical principles that aim at the continual formation and emancipation of all subjects of the practice. In this sense, I recall the writings of Barbier (2003) that say:

Action research becomes the science of praxis exercised by professionals at the heart of their place of investment. The object of the research is the creation of the dialectics of the action in a personal and unique process of rational reconstruction by the social actor. (p. 59)

I believe that from the reflections made here so far a few approximations can be distinguished to answer to the question that has been guiding this part of the article: what research do we talk about when we refer to action research? To that end, I shall group the clues found into three dimensions<sup>3</sup>:

- ontological dimension: relative to the nature of the object to be known;
- epistemological dimension: relative to the subject-knowledge relationship;
- methodological dimension: relative to the knowledge processes employed by the researcher.

The *ontological* dimension of action research: what do we intend to know when we use action research based on the current assumptions? In a broad way, we could say that we intend to know the social reality, the focus of the research, so as to transform it. However, such a broad answer is not helpful, and can be dangerous, because according to it we could use action research to strictly manipulative ends. The knowledge of social reality is an imperative that will impose itself, but I believe that, more than that, the knowledge aspired will be the knowledge of the pedagogy of

**<sup>3.</sup>** These three dimensions are inspired in Guba (1990), analyzing the different specificities contained within the generic label of "qualitative paradigm". I have made contact with this study through Alves-Mazzotti and Gewandsznajder, F. (2001).

the change of the praxis. When we speak of knowledge based on the pedagogy of the change of the praxis, we shall be referring to a pedagogical action that must imply:

[...] attitudes that problematize and contextualize the circumstances of the practice, within a critical perspective of the ideologies present in the practice, aiming at the emancipation and formation of the subjects of the practice (Franco, 2003, p. 88).

This guiding knowledge must have as its consequence the production of other knowledges thanks to:

- producing knowledges that give the subjects a better understanding of the conditionings of the practice;
- producing knowledges that allow the subjects to effect changes in their professional practices;
- producing knowledges that, after being scientificized, foster improvement of the practices towards collectively desired ends;
- producing knowledges that allow restructuring the formative processes.

The epistemological dimension of action research: how the relationships between subject and knowledge are established? For what has been said so far, it can be seen that action research is not compatible with procedures derived from positivist approaches, since it requires for its exercise diving into the intersubjectivity of the dialectics of the collective. There is no consensus about this incompatibility among the researchers in this field. However, I consider that action research is based on principles that break away from the positivist view of the creation of knowledge in education. This departure is clearly noticeable in the fact that positivist research, based on experimentation, sees itself as neutral and autonomous with respect to the social reality. From its inception, action research takes on a different position regarding knowledge, since it seeks at the same time to know and to intervene in the reality it studies. Such close connection between research and action inevitably turns the researcher into part of the researched universe, something that refutes the possibility of a perspective of neutrality towards, and control over, the circumstances of the research.

Historically, the epistemological assumptions move towards a dialectical perspective, and we can consider as fundamental the following:

- giving priority to the dialectics of social reality, to the historicity of the phenomena, to the praxis, to the contradictions, to the relations with totality, to the subjects' actions upon their circumstances:
- the praxis must be conceived as a basic mediation in the construction of knowledge, for through it theory and practice, thinking and action, researching and forming, are disseminated:
- there is no way of separating the knowing subject from the object to be known;
- knowledge is not restricted to a mere description, but seeks the explaining; through the dialectical movements of thought and action, it starts from the observable and then goes beyond it;
- the interpretation of data can only happen in context;
- the knowledge produced is necessarily transforming of the subjects and of the circumstances.

From a *methodological* point of view there is now the need for procedures to articulate the ontology with the epistemology of action research. Regardless of the techniques to be employed, one must move towards a methodology that raises in the group the dynamics of dialogical, participative, and transforming principles and practices. It is interesting here to reaffirm the warning of Thiollant (2003, p. 20) that

a huge methodological challenge lies in establishing the grounds for the insertion of action research within a perspective of scientific investigation, conceived in an open manner, in which science is not synonymous with positivism, functionalism, and other labels.

I believe we can list a few principles on which the epistemology of the methodology can be based:

- the selection of a methodology must leave aside positivist notions of rationality, objectivity and truth (Carr and Kemmis);
- the social praxis is the point of departure and point of arrival in the construction/resignification of knowledge;
- the process of knowledge is dynamically built in the multiple articulations with the intersubjectivity;
- action research must be carried out in the natural environment to be studied;
- the flexibility of procedures is essential and the methodology must allow for adjustments, and move according to the provisional syntheses established in the group;
- the method must consider the continual exercise of cyclic spirals: planning; action; reflection; research; resignification; replanning; actions ever more adjusted to the collective needs, reflections and so on ...

# What action do we talk about when we refer to action research?

When we set out to study the action dimension in action research we also intend to reflect upon its meaning, its configurations, as well as upon its "intertwining" with the research process. Along these lines, one is concerned with identifying the actions necessary to the construction/understanding of the object of study, as well as the actions that are fundamental to transform such understanding in production of knowledge. Thus, the interest here is bringing about the knowledge of the actions necessary to understand the processes that

structure the *pedagogy* of the change of the *praxis* within the conditions of the study.

Taking action research as an eminently interactive process, the analysis of the quality of the action between the subjects who take part in it is essential to define its epistemological pertinence and praxiological potential.

For the present study we have relied on Habermas and, in a first moment, we draw from the words of Boufleur (1997):

What determines the rationality of a speech or of an action? The first impression is that the rationality depends on the reliability of the type of knowledge that the speech expresses or that the action embodies. In fact, there is a close connection between rationality and knowledge, but Habermas argues that rationality is not related so much to the knowledge itself or to its acquisition, but to the form in which the subjects capable of language and action make use this knowledge.

How can the man make use of his knowledge through action? When carrying out his actions, it is considered that man establishes, by making use of his knowledge, two fundamental relationships:

- the man-nature relationship: based on a relationship of knowledge and command, characterized by Habermas, with respect to its use in the social sphere, as a strategic relationship;
- the man-other men relationship: a symbolmediated relationship used in the sphere of the understanding of the other, and thus considered as a communicative action.

Keeping with the author's thinking, there are two possible directions here:

• if we consider the human relationships as man-nature relationships, in which a noncommunicative knowledge is used, we choose a concept of cognitive-instrumental rationality; • if, alternatively, we consider human relationships as taking place through the weaving of intersubjectively shared knowledges, we opt for a concept of communicative rationality.

Both modes of rationality take place in our daily lives. However, the exercise of action research as a formative-emancipative investigation requires fundamentally the communicative mode of action. What are the assumptions of this model?

According to Rojo (1997), communicative action is an eminently interactive action that emerges out of the collective, of the team. This action does not intend to guarantee efficiency at any cost, it is not individualistic, it does not chase success; on the contrary, it is a dialogical action, life-based, that emerges from the lived world. This action grows out of the situation, and offers it ways out. It is communal, searches for understanding, goes after negotiation, agreement, seeks consensus; it is axiological, because believes in the validity of the discussed norms. "Serene when listening, strong in decision-making" (p. 32-33).

The agreements resulting from negotiation, based on the communicative rationality, are intersubjective, critically and dialogically negotiated; different from the agreements resulting from the strategic rationality: cold, imposed, induced through rewards, threats, suggestions, in which all that matters is the success of the action's proponent.

In the communicative action, the participants can reach a shared knowledge that creates an interactional structure of trust and commitment. But in the strategic action, guided by actions of mutual influence, the subjective agreement is not possible; the mechanism of induction of values and beliefs takes over, undermining interaction and forbidding the development of an atmosphere of mutual support and true participation. Therefore, the action necessary for the exercise of the type of research we discuss here shall be the one resulting from the communicative action.\_But

how does one engage in an action based on the communicative action?

Let us imagine for a moment a researcher, or a team of researchers, coming to a school to conduct an action research. How should they position themselves within a culture with its codes, meanings, representations, resistances, and its certainly varied and dissonant expectations? How can they familiarize themselves with such a new environment, to which they do not belong at first? How should they step into and deal with the initial contradictions, how do they notice them? How to turn the groups present there into workgroups? How should they start the job of smoothing out resistances and prejudices? How can they achieve an atmosphere of trust and attachment?

I share the concern of Mizukami et al. (2002, p. 122) when they analyze the difficulties inherent to doing research in/with the practice: "how do teachers and administrators deal with asymmetric power relations, which can distort the data and put the participants at risk?" And the authors alert to the ethical issues that emerge from unequal power relations.

Therefore the big issue here is that of the necessary intermingling of roles: how does one go from researcher to participant, continuing to be eminently researcher?; or how does one go from teacher subject of the research to researcher of one's doing, whilst keeping oneself essentially in the role of teacher? Another inequality, almost of identities, ensues: the researcher will certainly be primarily involved with the research and its results; the teacher will certainly be primarily involved with the action, waiting for the improvements in his/her practice. How does one reconcile, mediate and articulate these differences, so deeply rooted in the professional doing of those involved?

It can be seen that action research will seldom be carried out by inexperienced researchers, for the risk of methodological naiveté: in other words, due to the risk that those dissonances go unnoticed, are dealt with superficially, and that one falls prey of a strategic action, making it difficult for the research to move towards its true intentionality.

Along these lines, I believe that the collaborative, slow, silent posture, "serene when listening, strong in decision-making", is an important path, often walked by Elliot in his work with teachers on curriculum change: "the collaboration and the negotiation between experts and practitioners (teachers) characterize the initial form of what became later known as action research" (Elliot, 1998, p. 138).

Garrido, Pimenta and Moura (1998) also reached important conclusions in the action research they developed at a public school in the State of São Paulo. They were asked by the school to participate in a movement that was demanding changes; they placed themselves as coworkers in the group, without surrendering their roles as researchers; they stepped into the school culture silently and slowly, while opening to the school group the culture of the University, always under the perspective of helping in the changes desired by the group, and without losing sight of the formative character of the process.

From Lewin to Elliot, it is recognized that an important feature of action research is its process of integration between research, reflection and action, continuously followed in cyclic spirals, giving space and time to deepen the group-researcher integration, as well as allowing the practice of this process to gradually become more familiar, and also supplying the time for the interpersonal knowledge to grow, and lastly, through the spirals, opening up time and space for the cognitive/emotional acquisition of the new situations experienced by the whole group of practitioners and researchers.

Considering how essential the cyclic spirals are, working both as instruments of reflection/ evaluation of the stages of the process, and as an instrument of self-formation and enhancement of individual and collective acquisitions, particularly in the affective-emotional aspect, we must recognize that an action research cannot be carried out in a short period of time. There must be time to built an intimacy, time to construct a closer cognitive

universe, time to transform barriers and resistances, time to comprehend new facts and values that emerge from the constant situations of exercising the new, time to reconsider the professional roles, time to prepare the ruptures that emerge, time for the unforeseen, time to restart...

Another necessary consideration ensues: action research, to be properly conducted, needs a long time to achieve its full realization. It cannot be a hurried, superficial, clocked process. Unpredictability is a fundamental component to the practice of action research. To embrace unpredictability means to be open to real-time reconstructions, to restart form the beginning, to reposition priorities, always in the collective, through widely negotiated agreements. Hurrying is a principle that does not work in action research, and if it is present it almost invariably leads to clumsiness in dealing with the collective, giving priority to the product, and making it easier to adopt strategic procedures that will disfigure the research.

With the purpose of highlighting what has been discussed so far in terms of answering the question: what action do we talk about when we refer to action research?, we can point out:

- the action related to the action research must the linked to procedures involved in a communicative attitude;
- the actions carried out must emerge from the collective and move towards it;
- the actions in action research must be eminently interactive, dialogical, vitalist;
- the action must lead to understanding/ negotiation/agreements;
- the actions must reproduce themselves in the production of a shared knowledge;
- the actions must seek to strengthen the inter-fertilization of roles: from participant to researcher, and from researcher back to participant, thereby fulfilling their formative role:
- actions must foster the living together, and the overcoming of asymmetric power and role relationships;

- actions must be readapted and renewed through cyclic spirals;
- actions must integrate processes of reflection/research and formation;
- actions must reproduce themselves respecting the different times and spaces that emerge from the vital necessities of the process.

To analyze the configuration of these actions in the social roles of the participants of action research we shall highlight here the work of Lavoie, Marquis and Laurin (1996), in which they make use of various conceptual references, and attempt to synthesize the principal roles of researcher and actors in a process of action research. From that synthesis I shall make another, better suited to the focus of our work.

Principal actions of the researcher (social roles):

- overcoming the purely phenomenological, essentially subjective knowledge, and move towards the construction of a knowledge of the practice, situated between the subjective and the objective poles;
- establishing an even communication with the actors, recognizing their capacity for giving meaning to the facts, organizing and planning;
- being a facilitator: intervene only when needed;
- being capable of recognizing that his/her actions have different meanings to different social actors. The researcher must try to know and adjust to each of these meanings;
- knowing and working with the communication and meaning biases: to this end, the researcher must allow integrations to take place as a consequence of the mechanisms of the dialectical approach that gives support to the action research studies;
- accepting that things may change, that they can be reconstructed;
- having the ability to live under uncertainty, and learning to recognize the unique character of each situation;

- being able to make oneself available to the actors, so as to allow them to observe and understand the logic of the actions;
- maintaining the scientific rigor of the work, and looking after the just interpretation of the facts and practices;
- working always for an objective, and not for a client, thereby becoming an activist and not the servant of an imposed project (Pirson, 1981):
- taking part in each stage of the evolution of the project, together with the participant subjects.

As we can see, the actions listed above presuppose that which we have already stated, that is, that the actions of the researcher must happen within a paradigm of communicative action, with a focus on guaranteeing space for the expression and participation of the practitioners, and also on the guarantee of the intentionality of an action research.

Let us now inspect the synthesis of expectations of participants' actions according to these same authors:

- to participate in the creation of the instruments, and thus learn their meaning;
- to show commitment according to one's talents, abilities, experiences and particular relationships to the situation investigated;
- to participate actively in the development of the research problem, and of the action, in the search for solutions: in short, of all stages of the work;
- to collaborate in the decision-making, both in issues of the research and in questions of the action;
- to be cautious in dealing with the official release of results, and prudent in the generalizations;
- to behave professionally, and use one's knowledge and experience to question the researcher:
- to be willing to take part both in the research and in the ensuing actions;

- to accept to live with the uncertainty and instability inherent to all dynamic situations, where total predictability is impossible;
- to live intimately the experience and try to objectivate it and share its meanings with the group.

Attitudes of availability, cooperation and commitment are expected. We know, however, that such dispositions are not always readily present in the group. The researcher must know how to build this sense of partnership and cooperation, creating a group atmosphere that allows the qualitative emergence of these actions in all participants. This situation can be better experienced when the group requests the intervention of the researchers, as in the already mentioned case of professor Selma Pimenta and her team. In this case, the climate of cooperation is more evident from the start, but other problems exist, even because the request made by the group does not always express the wish of the majority: sometimes it reflects a smaller set of interests within the larger, not always convergent, set of interests.

Here we meet again the concerns of Lewin (1946) related to the study of action research, the growth of the investigations about the dynamics and genesis of the groups, about group change blocking mechanisms, or still about the evolution of group collective perceptions. Lewin stated that only a good knowledge of the workings and dynamics of a given group would allow the researcher to enter its climate, to understand its logic. Writing about Lewin's considerations, Mailhiot (1970, p. 61) says:

At first, the goal to be reached is to make groups and subgroups conscious and lucid about the dynamics inherent to the evolving social situation. It is only from this moment on that groups and subgroups will accept changes and complements to their group perceptions.

Along these lines, another important warning to inexperienced researchers is this: one

needs to know and be interested in the dynamics of the groups, in the sense of the dialectics of formation and reproduction mechanisms of the group in order to work well with action research.

Morin (1986) reminds us that the actions of the researcher must be suffused by an accessible discourse, "without any complex scientific apparatus" (p. 304). It must be a spontaneous discourse, enriched by the experiences lived through the dialogue, and, above all, be a discourse open to transformations and, given that action research is a procedure open to constant revisions and restructuring, have an eminently exploratory character.

# How do research and action integrate in action research? (What is the meaning of the hyphen between research and action?)

I regard as necessary to reflect about the quality of the relationship between research and action in a process of action research because I believe that many mistakes arise from overlooking this issue.

When we speak of action research, we refer to:

- research in action;
- research for action;
- research with action;
- research about action;
- action with research;
- action for research;
- action in research.

Are there differences in these subtle statements? Are there any modifications to the investigation process when we exchange these prepositions or the positions of the two components in the expressions? I believe there are differences, and they become more clear when we detach the methodological intention from its procedures.

If we consider the reflections made in this article, and drawing for our synthesis from Lavoie, Marquis and Laurin (1996: 41), action research can be seen as:

- an approach to research, with social features, associated to a strategy of intervention, and that evolves in a dynamic context;
- a research that starts from the assumption that research and action can be together;
- a research that has as its objectives the change, the understanding of the practices, the resolution of problems, the production of knowledges and/or the improvement of a given situation in the direction proposed by the collective:
- a research originated from real social needs, that must be linked to the natural living environment, have the participation of all involved in all its stages;
- methodologically, a research that has flexible procedures, that adjusts progressively to the facts, that establishes a systematic communication between the participants, and that evaluates itself throughout the process;
- a research that has an empirical character, that establishes dynamic relationships with the experiences, and becomes richer with its interpretive categories of analysis;
- a research that has an innovative design and a form of collective management where the researcher is also a participant, and participants are also researchers.

If we consider the points raised above, it becomes more evident that for an action research to take place there must be an association of the research with a collective strategy or proposal for intervention, indicating the research position from the outset with the intervention action, an action that immediately becomes itself object of investigation. We also assume that research and action can be united in a same process, reaffirming the issue of research with action, which gradually also becomes action with

research. In developing action research, there is an emphasis on flexibility, on the progressive adjustments to the facts, strengthening the issue of research with action.

If we consider action research as a research on/about action, we can make at least two mistakes:

- we can turn action research into a study to evaluate a procedure adopted, a transformation occurred, or even an ongoing process. In this case, the research, regardless of being relevant, cannot be considered as action research, for it has lost its dynamic feature of transmutation after transformations, and therefore has lost its possibility of progressive adjustment, a fundamental factor to the research of/in the praxis;
- another mistake, quite common among inexperienced researchers, is related to the fact that the researcher investigates his/her own workplace or job. A school principal or a pedagogical coordinator, or even a teacher, carries out the research within their own professional action. The importance of this positioning notwithstanding, the ensuing research can hardly be characterized as action research, particularly because of the hierarchy of professional roles, of the implicit powers that demand strategic actions and not communicative actions.

What is important to remark is that action research suggests always the simultaneity of research and action, and action and research, to the point of considering that perhaps this connection should be denoted by a double arrow between the two words instead of a hyphen: action?research, to stress the simultaneity, the intercommunication, and the inter-fertilization.

I want to make it very clear that there are other forms of research, very relevant and necessary, which work with the issue of the relationship between action and research in a different manner. My point does not drive in any way at criticisms to other forms of considering and discussing this simultaneity. I just want to stress

that when I refer to action research, drawing from the theoretical assumptions briefly exposed in this text, the simultaneity/intercommunication/interfertilization between research and action is an aspect inherent to the proposal. Thence come the operational/existential difficulties of carrying out an action research, since working scientifically under the uncertainty of roles, under the contradiction of expectations, under the uncertainty of the events that shall give new directions to the process, requires much conviction, much boldness, and much perseverance.

## Structuring a pedagogical process for action research

It is common for beginner researchers to ask for a "practical blueprint", like a "steps of the method" to carry out an action research. There are authors that respond to this demand very adequately, and I mention especially the above-cited work of Lavoie, Marquis and Laurin (1996). However, I want in this article to highlight the methodological flexibility of action research as one of its essential components, which entails, as with all work on the practice, a scientific rigor that is more tied to the epistemological coherence of the process than to the adherence to a ritual succession of acts. That is why I underline the issue of a pedagogy of action research that considers the complexity, the unpredictability, the opportunity offered by some unexpected events, the potential fecundity of some moments that emerge from the praxis, indicating that the researcher many times needs to "act at the urgency, and decide under the uncertainty", as Perrenoud (1999) says with respect to the working of teachers.

Thus, as a first conclusion to this text, I would like to emphasize some moments that should be given special attention in a process of action research to guarantee the articulation of its ontological, epistemological and methodological assumptions in a pedagogical dynamics that must bring forth in the subjects, involvement, participation, commitment, and production of

knowledges, and also create new knowledges to be incorporated to the scientific field.

These moments to be given priority in action research shall be called here "intermediate pedagogical processes", and can be summarized as follows:

- construction of the collective dynamics;
- resignification of the cyclic spirals;
- production of knowledge and socialization of knowledges;
- analysis/redirection and evaluation of practices;
- awareness of the new dynamics of understanding;

## Construction of the collective dynamics

It is very difficult to deal adequately in such short space with the importance of the construction/reconstruction of a collective dynamics. However, the researchers that set out to conduct an action research must be aware of the fact that they are dealing with a somehow structured group that possesses its own dynamics, and that at the outset the researchers do not belong to the group. In this group the researchers intend, along with the collective, to process changes. How does one arrive and immediately start researching? Certainly there must be a "collective warm-up" before the research work proper.

Every manual about the phases/stages of action research suggests that the work should begin with a diagnostic of the situation for later planning of the action. However, I believe to be impossible to conduct the formal work of diagnostic and/or planning of actions until researcher and group have positioned themselves as a "we", until they are together to carry out a collective task.

There is no room in the space of this article to discuss the studies that present evidences of the fact that changing collective attitudes or producing social changes in a group requires a realignment of its power and

representation structures, and in the dynamics that organize its social practices. We must, however, remember that the work with action research requires the setting up of an atmosphere of "professional cooperation", to employ the phrase by Thurler (2001). According to her, "professional cooperation does not correspond to the functioning of the majority of teachers... individualism remains at the heart of professional identity" (p. 59). For this reason, the construction of this culture of cooperation must be a task of all who intend to work in the collective of the school.

The construction of the dynamics of the collective works with the perspective of increasing the receptivity of the group of practitioners to the culture of cooperation. This is no easy task. According to Thurler (2001) all professional cooperation is based on some attitudes that must be pursued routinely:

a certain habit of mutual help and support; a capital of trust and mutual frankness; each one's participation in collective decision-making; a climate of warmth, of humor, of camaraderie, and the habit of expressing one's recognition. (p. 75)

Still, 1 ask myself: how do we build up the climate of camaraderie? Of shared humor? Of mutual frankness? Or, as Shön (1997) says, how do we overcome the silence game, the attachment to defenses, the awkwardness, the shame, the shyness?

Along these lines, I propose that the work with action research should have a preliminary stage constituted by the work of inclusion of the researcher in the group, of the group's self-knowledge with respect to its expectations, possibilities and blockages. This preliminary phase is also fundamental to the establishment of a contract of collective action, commitments to the collective action and to the goals of the work they will develop. Morin (1992) argues that this contract must be open and constantly questioned.

We must make it clear that this intermediate pedagogical process, like the others that follow, should take place during the whole process of action research, and also that one must work with the perspective that such intermediate processes must be incorporated by the group, transcending the moment of the research, and function as principles and operators of continuing formation. In other words, the *construction of the dynamics of the collective* is a main focus at the outset of the research but must continue in a process of improvement and strengthening even after the research is concluded.

#### Resignification of the cyclic spirals

Barbier (2002) says that the true spirit of action research lies in its "approach in spiral". It means that "every advancement in action research implies the recursive effect due to a permanent reflection upon the action" (p. 117).

This permanent reflection about the action is the essence of the pedagogical character of this work of investigation. In this process of continued reflection upon the action, which is an eminently collective process, the space is open to form new subjects researchers. I have already mentioned that I consider that cyclic spirals play fundamental roles in action research, such as:

- instruments of reflection/evaluation of the stages of the process;
- instruments of self-formation and collective formation of the subjects;
- instruments of growth and heightening of the individual and collective understandings;
- instruments of articulation between research/action/reflection and formation.

This issue of the cyclic spirals is directly related to the studies of this last decade about the formation of critical-reflective teachers. Among those, I consider here the analysis of Libâneo

(2002) regarding the hermeneutic, shared, solidary, and community reflectivity. As the author says, it is about "going back to the care of things and people in the daily social practices, in a shared world, constituting a reflective community of meaning-sharing" (p. 69).

In this direction, it is worth reflecting along with Monteiro (2002) that the teachers' actions tend to become habitual, and that the habits give support to the actions, and then noting that "the (re)vision of our actions allows their transformation". The author then says that the revision is "a theoretical, reflective operation upon the actions taken or to be taken; it is the establishment of a new practice... through a new look upon it" (p. 118). I regard as important the new look approach, since if we are submerged in the praxis, in the collective exercise, the look is what changes first, and it is the look that no longer accepts being confronted with the already overcome. This new look, coming from a subject conscious of the existential and personal transformations, questions the need for new scenarios. The cyclic spirals intend to objectivate this new look, so that new needs will come from it, implying in new practices.

Thus, the method of action research must include the continual exercise of its various stages through the cyclic spirals: here, in this intermediate pedagogical process, I refer to the production of knowledge and socialization of knowledges. They are complementary and associated tasks, particularly in the case of action research, where we aim at the collective, shared work.

The research requires the rigorous and methodic record of the data. This work needs to be constantly done. There are authors, among them Lavoie, Marquis and Laurin (1996) and Morin (1986), that even mention the need for a logbook<sup>4</sup> as an instrument necessary to put in writing the data gathered during the whole research process. Be it a logbook or otherwise, it matters that it is a daily and routine record, so as to objectivate the lived and the understood. These records of data and facts include, amongst others:

- references to the agreements made for the working of the group;
- data related to understandings, interpretations, and syntheses of the readings of theoretical fundamentals;
- descriptions of the activities and practices of the group;
- syntheses of group reflections and decisions;
- characterization of the institutional and administrative changes taking place;
- description of the participation of the elements of the group.

These data are discussed, reflected upon, incorporated, and resignified by the group, especially through the cyclic spirals, gradually becoming knowledges of the research process. These understandings/interpretations/analyses/revisions need to the processed in the form of critical records. The whole group must take place, even because these discussions and records are important formative instruments of the researcher.

In this reflective process of gathering data, recording them collectively, discussing them, and putting them into context, we are already moving toward the construction of knowledges and their sharing, in a unique, dialectical process, transforming of the participants and of the existential conditions.

## Analysis/redirection and evaluation of practices

This movement is, in fact, already included in the process of the cyclic spirals. I mention it here to stress the importance of this perspective of the evaluation of the practices, not of the research process, but of the actions carried out by the subjects. We stress this because it is fundamental that, after a work of action research, the participant subjects have learned behaviors and attitudes in the direction of incorporating the daily reflection as an activity inherent to the exercise of their practices.

According to Smyth (1989), cited in Amaral, Moreira and Ribeiro (1996), the reflection about the practice must transcend the aspects of the classroom and contents, to reach a level of reflection about the ethical and political principles of society. According to the author, in order to give emancipative powers to the teacher "we need to question the ethical validity of certain practices and beliefs as a way of giving back to the teacher his/her role as an intellectual" (p. 102).

For this analysis and evaluation of the practices, a continual work will be needed, so that the participants get involved in self-observation, observation of others, reflecting about the transformations of reality that the practical actions produce, reconstructing their perceptions, building new theories about the practices, exchanging and intersubjectively analyzing their understandings.

## Awareness of the new dynamics of understanding

According to Ghedin (2002), "what we do is not explained by how we do it; it makes sense after the meanings attributed to it. These meanings are not latent, but actually emanate from the senses we build" (p. 141). To speak of process of action research is to speak of a process that must produce transformations of sense, resignifications of what we do or think. The transformation of meaning implies the reconstruction of the subject himself and once again we cite Ghedin to make explicit that when we construct the knowing of a given object, it is not just the object that becomes known, but the subject himself; the author concludes that "the knowledge of something is also, simultaneously, a self-knowledge".

It will therefore be important that during an action research there is time and space for each subject to incorporate the changes that take place in his/her significations of the world, which essentially imply in changes in his/her perspective as a subject. In a previous work (Franco, 2000) I approached the topic of the teachers that, entering a continual process of revision of their own practice, end up incorporating attitudes in the direction of becoming investigators in the context of the practice. As investigators they will learn and develop abilities to:

- create new hypotheses to carry out new practices;
- live creatively within diversity;
- find new answers to newly-perceived challenges;
- recognize and make use of the theories implicit in their practice, renew them and make them more adequate;
- reinterpret the initial hypotheses;
- look for articulations between educational means and ends;
- see themselves as capable of extracting from the collective the sources of personal improvement;
- learn to understand the dialectical relation between subject and object, theory and practice;
- seek out contextualizing, problematizing attitudes, and establish articulations between the fact and the totality;
- reaffirm that transformation is the principle of development; acquire the ability to create new visions, to understand the problems in other ways, beyond their current repertoire;
- find out the concrete meaning of the conflictive and complex situations, making it possible to envisage that practice is an investigative process, of experimenting with situations, so as to seek new and more adequate understandings.

Thus, we reaffirm that action research can and must work as a methodology for research pedagogically structured, allowing both the production of new knowledges to the area of education, and the formation of critical and reflective researchers.

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