

OVERCOMING THE LIMITS FOR A MEANINGFUL GEOGRAPHICAL EDUCATION

Sonia Maria Vanzella Castellar

University of São Paulo, Brazil

E-mail: smvc@usp.br

Abstract

This is an article analyzing the didactic action and the involvement of geography teachers with their actions in the classroom. This article is the result of analysis of research, financed by the Fundação de Amparo à Pesquisa (FAPESP), and took place in a public school in the State of São Paulo. The central objective was to analyze knowledge and teaching practices in geography. The discussions presented here are focused on teaching practices – the classroom didactic – aimed at altering the logic of the organization of the school curriculum for Geography in Fundamental Teaching (5th to 9th. years). It also deals with analyzing the teaching and learning of geography, considered most important to the extent that geographic knowledge permits understanding of places and human actions, thereby overcoming a paradigm common in Geography in various countries, of its being a discipline to stimulate learning by rote and description with no relevance to the school curriculum.

Key words: geographic education, meaningful teaching and learning, teacher training.

Introduction

The article here submitted for the appreciation of readers was developed as a result of research that took place in a public school, with the objective of analyzing how teaching practice might contribute to significant learning. This research took place over two years, resulting in an analysis as to how teaching takes place and how it is possible to learn in different learning spaces and using didactic propositions that alter the organizational logic of the school geography curriculum. It also deals with analyzing the process of teaching and learning in geography, which I consider important to the extent that learning in geography makes possible the understanding of the reality of places and human actions and stimulate spatial reasoning. This knowledge further allows students to know the potential and the vulnerability of territories, to locate and explain the principal spatial groups and the way in which human activities relate to the natural environment.

As with other disciplines in the school curriculum, socially and historically constructed Geography is pertinent to the extent that it favors and brings out the potential for the student's spatial perception, his or her knowledge of territory, identity and sense of belonging to a place, as well as spatial reasoning and national conscience. For a long time now school geography propositions and the process of conceptual construction has been analyzed.

Those who have already had classroom experience and been with teachers in continuous training or starting training will know that teaching is a complex activity and often difficult. It is difficult because the question raised by teachers always remains: "why do students not understand what for us is so clear?" This lack of understanding leads to Bachelard (1996), when he said that it is surprising that teachers (of sciences), more than others if that is possible, do not understand that that someone (the student) does not understand. For us the question lingers:

“what prevents the students from learning geography?” In the case of school geography, perhaps the biggest problem is in the stereotypical idea of its function and in the lack of geographic knowledge, this resulting in descriptive teaching remote from reality. This has been criticized since 1930 by Delgado de Carvalho, on the grounds of superficial information and perceptions, since neither scientific, nor school nor day to day knowledge is considered. Hence the importance of this research and analysis being carried out, relating to the sense of the discipline in the basic education school curriculum. In many countries such as Italy, Spain, Portugal, Columbia and Chile among others the discipline has been removed from the curriculum and is treated as a sole discipline: social sciences or social studies. Another important aspect of the research was the fact of it showing that in altering the conditions or the dynamic of the classes, the students are in a position to learn, that is to say that this depends on how the teacher teaches.

The problem which drove this research was the development of strategies to propose active methodologies with didactic sequences; workshops and activities in informal spaces, which might instigate teachers to alter their teaching practices in the sense of making possible student learning, give scholastic knowledge significance and share knowledge in the teaching of geography.

To develop this research a reading of the actions carried out in the school was made and we decided on the objectives proposed in this study, prioritizing the qualitative methodological design.

The option for qualitative investigation is due to the characteristics pointed out by Bogdan and Biklen (1982 apud Ludke; André, 1986, p. 11): qualitative research has a natural environment, the school, as a direct source of data; the collected data is predominantly descriptive; the preoccupation with the process is much greater than with the product; the “significance” that people give to things is the focus of special attention by the researcher; and the analysis of data tends to follow an inductive process. All this is added to the concern of Monceau (2005, p. 468) that “new knowledge and useful practical instruments are obtained”.

The choice of the research modality – a qualitative investigation – is justified by our belief that its way of analysis favors a more profound understanding of social reality.

Qualitative research allows us to consider as object of analysis those elements which allow us to follow the process of learning, with the situations experienced in the workshops, in classrooms and in informal learning spaces, and how teachers planned and behaved in the classroom. This research allows us to analyze how teachers define their teaching activities and the construction of a collective educative project.

This research modality is an important referential for the development of this work, to the extent that it allows the establishment of the social and temporal dimensions that define society, as well as the values and political fundamentals that orientate the approaches of this study. Further, it takes into consideration the locale where the investigation takes place, and the time (social, historic) necessary for the study, simultaneously making it possible to find different paths to interpret reality should there be alterations that imply in new routes to be followed, to better define the way of constructing the objects and the most adequate tools to carry out the plan established.

Qualitative research further allows the use of a multiplicity of instruments – such as interviews, observation, analytical and interpretative procedures of data – necessary for the understanding of phenomena studied, as well as the flexibility in drawing paths and in the choice of instruments. To follow the processes of change in the teachers, tools are required which allow us to recognize these and analyze the experiences. It is understood that this is a necessary discussion where geography education is concerned and further, I emphasize that I take into account the construction of knowledge, the school’s socio-cultural context and methodologies which can bring innovation of teacher action, in the sense of thinking of a proposal that stimulates quality public education.

The Process of Teaching and Learning

In developing this research from the starting point of interventions with geography teachers whilst at the same time, creating learning situations with 5th. and 9th. year students, our focus was to provide theoretical bases so that these would be able to understand geographical concepts using different languages (maps, images and maquettes). We also provoked in the teachers analysis in the field of pedagogical work organization, so that they could take on methods of teaching and evaluating so as to become involved in the workings of school life and to improve communication among teachers, students and school managers.

Thus it was understood, in relation to the teaching plan, by working with such concepts and languages, that the teacher might enable students to read the world, to understand the social and productive relations existing therein, and from this point be impacted by what has been learned. In this way geography helps in understanding the world, providing a repertory that permits thinking about problems and seeking solutions, as well as amplifying the use of languages such as maps, literature and images. This is about thinking of didactic actions that take into account the intellectual capacity of the students, stimulating their understanding of scientific concepts, since without strategies for learning it becomes difficult for the student to acquire some type of knowledge.

The proposition to think of a more integrated school curriculum, a group of scholastic practices, ends up as a qualifying moment for the teachers. This provides the student with a new learning perspective, with a more significant analysis of reality. The idea of significant learning is not focused solely on a strategy to learn well within a group of activities or in the direct relationship with the day to day, but I understand that this happens when the student manages to appropriate learning, manages to understand and read the world in which he or she lives, establish the significance of that which is being learned, to question, become interested in learning, and feel like the subject of that learning process. Reading the world or reality cannot be understood by common sense; it means providing the student with a set of learned scientific concepts linked to the reality being lived by him or her. These concepts should be linked in such a way as to structure strategically a conceptual network allowing the student to look at the world, at the object or the phenomena, understanding the scientific concepts worked on in school and relating these to his or her hypotheses and life. This should be a vision of the whole and not just partial, that understands the group of human activities in space and time. To read the world, give new meanings to it, make new discoveries, to transform that which is considered relevant is what is desired for the students and - why not? - For the teachers.

To verify how learning takes place, from the starting point of concrete school situations, it is important to scrutinize the process, in the sense of understanding how the student builds his knowledge and the role of the teacher as mediator in the classroom. During this research, in a public school, we were concerned to try and establish a collaborative relationship between the group (of researchers) and the teachers, to help in the transformation of curricular practice and develop the reflexive capacity of the teachers about the practice and their students. In seeking a solution to these problems, the students will be stimulated to appropriate knowledge and create significance for it.

In order to work with concepts such as landscape, region, space, territory, place and physical environment for example, some knowledge of aspects referring to the history of geography thinking are necessary, as well school geography. The formation of concepts is essential so that the student can establish the relationship between society and nature, since the elaboration of these concepts goes through a process of generalization. It is necessary to establish links between the concepts in order to have the construction of a conceptual system or network, with understanding of the significance of phenomena and reality objects.

In the acquisition of knowledge, the capacity for reasoning should become evident,

through the interconnection between the concepts. As a result, it is necessary to look deeper into questions concerning the theory of learning and didactics so as to guarantee the scientific basis of school learning, such that based on a method we can investigate how the level of learning of the students can be modified, or conceptual evolution as a result of student questions. The student therefore, in order to understand a concept needs to establish various levels of generality, since its meaning is not unique. When the student does not understand the meaning of a word, he will without doubt find difficulty in understanding scholastic content and will need to experience learning situations that will lead to his reorganizing his thoughts from the starting point of the next, prior or new knowledge. The lack of knowledge of language undermines the understanding of content. This is essential, since the attribution of different meanings to the concept implies incorrect understanding.

In appropriating a concept, the student needs to give it meaning, taking in the new information to alter schemes, creating a thinking structure that may be simple by for example, relating the phenomena studied to those of the day to day, thus stimulating conceptual changes.

Returning to epistemological constructivism, it is necessary to question what we know and how we arrived at this knowledge. Epistemologically, what is being studied are the mechanisms and processes that allow the evolution of the student, the alteration of their conceptual hypotheses and the extent of scientific knowledge acquired and understood. The idea of constructivism establishes the sense that the student should produce and reproduce the basic concepts and the forms of logic that constitute thinking and intelligence, bringing about the possibility of the student being the subject of his knowledge.

It is in this context that we affirm that, in order to understand a concept, it is necessary to recognize that it carries very great significance. The information that we retain is always being elaborated from other information. On a daily basis, the students are confronted with various concepts which are elaborated and re-elaborated, referenced day by day and faced in the classes – that is, concepts come from various places, sometimes precise or fragmented, and the challenge is in organizing them.

In research already carried out, students as well as teachers noted that facts, actions and practical procedures depend on the cognitive and the capacity for generalization and abstraction of the subjects. For Bachelard (1996), this involves leaving contemplation of the same to seek the other, inquire critically into the experience, bringing us back to the need to diversify thinking and overcome certainties, reorganizing thought and knowledge. In this sense we agree with Bachelard (1966, p.24) who affirms that:

The difficult task is to place scientific culture in a state of permanent mobilization, substituting closed and static knowledge for open and dynamic understanding, critically examining all the experimental variables, finally offering to reason reasons to evolve.

The understanding of a word or term requires various meanings, which could be factual or epistemological, showing that from the starting point of a concept another may be obtained or analyze its relationship with the other. In this scheme, the empirical world inhabited by the student, can provide notions about the theoretical world. The life experience of the student and the actions of the teacher – by means of problem solving, research, descriptive classes, field work – will contribute so that the student is able to structure and construct scientific concepts in the field of the theoretical world.

The experience we had during the research reinforced the idea that each student has his or her process for the construction of knowledge and that this construction is not mechanical, but arises from the interaction between the assimilation schemes and the properties of the object, in the explanation of the cognitive function.

In this context, it is important to consider that the development of conceptual thought of the student is the systemization that, with mental activity, consists in organizing the objects into groups, classifying them according to determined principles. We can say that the pedagogical processes and the mental activities of comparison, analysis, synthesis, as well as the capacity for generalization and classification of the students are fundamental so that they understand the properties of the objects that structure reality and establish the links between them.

Among the schemes that we might exemplify is reversibility, such as the possibility of combining every operation with its reverse, in such a way as both are mutually annulled, like being close and distant at the same time. Effective actions develop in time and space; when a subject is moved there are objects on the right and left side, when the movement is inverted the objects are referentially in the opposite direction - these are spatial relationships. Although I may carry out other acts in the opposite direction, these cannot be re-elaborated from the starting point of the first action, since the course of time is irreversible.

In this sense, Pizzinato (2007, p. 36) affirms that, during the practical mental process a reversibility exists that shows itself in the permanent correctional process during the activity, in each consecutive stage. There is a constant analysis which compares that which is being done with the model and changes are considered and introduced during the execution. These analyses are carried out in a progressively complicated manner: analysis of proof, partial analysis or by elements and systematic analysis. These types of analysis progress with the mental development of the student, for that which is vital in practice.

When the student has to solve a problem, he needs to activate various schemes to understand and organize the network of concepts that will result in his answer, overcoming his unit and utility, understanding and organizing a network of concepts.

In the construction of concepts, it is worth pointing out that the act of classifying implies logical reasoning, exploiting the potential that the language has to formulate abstractions and generalizations, to select attributes and subordinate objects to a general category (Luria, 1990, p. 66):

It should be noted that categorical thinking is generally very flexible; the subjects pass rapidly from one attribute to the other and construct adequate categories. They classify objects by substance (animals, flowers, tools), by material (wood, metal, glass), by size (large, small), by color (light, dark) or by some other property. The capacity to move freely, to move from one category to another is one of the principal characteristic of abstract thought or of the categorical behavior essential to it.

We perceive the reasoning capacity of the student when his or her capacity to generalize is revealed, that is to identify the sense of the concept beyond the material or functional characteristics of the object.

In developing within the classroom exploring the construction of concepts, students should be placed in challenging situations as regards geographical terms. From the replies presented by the students, it is possible to evaluate the evolution of the meaning of the words. In geography, terms such as urbanization, geographical states and territory are full of meaning and at the same time, linked, so that in knowing that the student understands, we are in a position to advance in relation to content.

The representation of the neighborhood can be the starting point for the teacher to evaluate the grouping and classification capacity of the student in relation to the socio-environmental and economic characteristics of the neighborhoods that organize the urban space; this implies understanding of concepts of, for example, the neighborhood and the city. With this conception methodology, a more relaxed class is constructed, the teacher in the position of mediator, as

partner in the learning process, no longer the simple transmission of knowledge and attributing to the student the paternity of the knowledge which is being structured.

It is not enough however, to list concepts and treat them as facts, It is necessary to show the relationship between them, show the hierarchy, relating them and placing them, as if organizing a mental or conceptual map.

The conceptual map is a way of helping the teacher to organize the knowledge being taught and helping the student to organize his or her ideas, concepts learned in the classes. For Novak (1998) the conceptual maps have a key role as a tool representing the students' knowledge and the structure of knowledge in any situation. Knowledge, when learned in a meaningful way, probably links together action, sentiment and conscious thought, and is knowledge that controls.

A pedagogical proposition is formed from the link between the person who teaches and the person who learns. For this a class with dialogue is required, that poses questions and is also open to being asked them; a class that starts from student references and brings to scientific explanations the doubts and experiences of the day to day.

In dealing with scholastic geographical content, we meet in the debate a network of concepts which require a method of analysis to be understood. Discussions on the processes that lead to the formulation of concepts are avoided, and not being valued, end up removing the scientific value of scholastic knowledge, even though it is important to understand the real world, allowing understanding of the whole by means of its parts.

The fragmented discourse of geography (human geography and physical geography and the interior of each one), which transforms it into a less important and tiresome discipline, occurs due to a lack of analytical-critical reading of the concepts. The teaching becomes descriptive, dogmatic, and the student does not establish the relations between the content and reality; the discourse in the classroom comes already cleansed, with values and without content of the method of analysis.

The conceptual discussion of geography will make sense to the student when the geographers who work with teaching become aware that scientific knowledge is linked to the way in which the concepts are related, in a concept network, within which each one can organize other networks, that is to say that this can be a starting or finishing point, when it is a case of choosing one of the parts to analyze reality critically and establish a connection with it. To think about how concepts change with new ideas and information, understanding those presented by the students and proposing investigations about these.

One possible example is the study of cities and of urbanization – this would make more sense to the student as a function of conceptual interrelationships; this being a spatial dimension of scientific knowledge, as discussed by Pietrocola (2004) and Giordan and Vecchi (1996), among others in the teaching field. In respect of the study of (in) the city, overcoming the dichotomy between human and physical geography (of nature) is in the analysis which is done, from example, based on the study by (2004, p. 198):

(...) The environmental problems existing in urbanized areas are so enormous as to endanger the use of natural resources and reflect an intense lessening in quality of life, as much for the population that lives in the protected area, as for those that use the water ever more contaminated by sewers, refuse and sediment. (...)

(...) The environmental and social problems existing in the protected areas of the springs reflect, on the one hand, the incapacity of the public authority to make people obey the law and on the other, that where a high level of misery prevails, questions of habitation and survival are priorities. (...)

This quote reveals that understanding a theme such as "water resources in urbanized

areas" makes sense when the questions are treated in an integrated manner, but not simply in a discourse bereft of content: the student needs to know the concepts correctly, know that there are laws dealing with the environment and the responsibilities of the public authority. And the teacher needs to know the pertinent concepts to be worked, needs to have a notion of the spatial and temporal dimension of knowledge, know where to find the material to be researched and how to make the connections necessary to mediate understanding of the object that is being studied.

In this sense, and on the basis of the studies of Rodrigues (2004, p. 90), it can be affirmed that, in spite of the availability of notions, categories, principles and methodologies, its real utilization in studies that consider human activities was not carried out in a progressive and cumulative way, but discontinuous and disjointed, often reproducing methodological trajectories, without being aware or explaining the original proposition. Rodrigues (2004) brings the discourse of the theoretical elements to understand the reality described by Ross (2004), both revealing in the text the overcoming between human and physical geography, and further demonstrating the importance of theoretical-methodological discussions for the analysis of scientific concept in the school, starting from the reading of reality.

The understanding of an urban phenomenon by the student needs to be treated in an integrated form, that is, a methodological joining between physical and human geography. If in the universe a separation exists as a result of the peculiarities of the research, in school this dichotomy should be overcome.

One of the factors which we consider important for school geography to continue being boring is the lack of fundamentals and of the whole vision of the phenomenon that gives the boring character to the teaching of geography. This could mean, in the school context, a posture in the learning field that better integrates knowledge, instead of specializing excessively; the synthesis of the teaching process would be the integration between the areas of knowledge.

We also see that the construction of concepts is not exclusively of the school, to the extent that this occurs based on the subject's life, of interpretations about the world, of the social representations which he or she possesses. That is, the concepts are constructed from the meaning of phenomena and objects that we create to interpret or explain the world around us, and school helps in the transformation of these.

In experiencing a practical lesson in a laboratory or classroom, elaborating models with the objective of developing or provoking conceptual changes, the student will better understand the phenomenon being studied, since the teacher will mediate between the knowledge being explored in the expositive lesson and that which is being experienced. The mediation process starts with questions, passing through obtaining replies and by the reformulation of questions, by observing experiments, the models, by discussions among students and by the systemization in the register. These procedures structure a method that leads the student to reasoning and learning how to ask questions.

In appropriating the concepts, with significant learning, the student recognizes the words and symbols and understands the phenomenon. This process provides a level of formulation, assimilation and accommodation of the concept by the student.

Often there are complaints that the students don't learn or don't want to learn. However, it must be borne in mind that you do not learn that which you do not know; you do not like that which you ignore, nor learn that which is not necessary or in which you have no interest. Nevertheless, learning should be seen as a process of reconstruction, proposing ruptures with that already known or with the representations you already have of objects and which make sense of life.

In the process of the construction of knowledge, the teacher should act as mediator, creating conditions so that significant learning can take place, with a holistic and dialectic dimension to the object of study. We take it for granted that the solution to these questions is in

the didactic and teaching methodology, which is in the way in which the content is developed and how the students acquire their knowledge, constructing the scientific concepts. The result of learning is the consequence of this process.

Thus, the question posed is: in what way does the subject who learns construct his knowledge? Educational activities, active and innovative methodologies, the educational projects can contribute on a day to day basis to the acquisition of knowledge, from the starting point of what the student already knows. The temporal dimension of the construction of knowledge is related to its historic process, but what is taught in school bears no relation to this dimension, creating pedagogical obstacles in the process of teaching and learning.

Frequently, there is in schools and classrooms a preoccupation with content, without knowing however, how to make the student truly learn and not simply memorize, since he or she is not simply an information deposit. Obtaining knowledge is not accumulating content. Thus, in order for a didactic proposal for the teaching of geography to be included in the construction of school knowledge and in taking communication as the axis of cultural knowledge, it is necessary to put the social construction of knowledge in first place and to attribute the fundamental role to the intervention of the teacher in this construction.

In school spaces, didactic action has as its objective promoting changes in pedagogical work, in the sense of creating conditions such that scholastic content, methodologies used in the classes and the relationship among members of the school begins to focus on the construction of more significant learning, apart from ethical and democratic values.

The preoccupation with making the scholastic content more accessible to all the students is not a reality, to the extent that the traditional form of transmission of scientific content present in schools does not guarantee that students learn how to learn. Although there are many researches concerning teaching and learning, showing that the appropriation of knowledge is more significant when the methodology is more active and innovative, we are still seeing school context that does not stimulate change in teaching practice. The method of teaching in school is very distant from the curricular proposals and the investigations into education.

Some factors presented by Rué (2009, p. 174), endanger significant and autonomous learning:

Certain methods of evaluating knowledge reinforce the superficial focus; the student may be approved in one discipline having only empirical knowledge, a lot of information, recognizing some information (...)

The students don't receive an adequate return, in the short or medium term, in relation to progress and the difficulties that they should overcome.

The development of concepts does not begin with what the student already knows, nor is this knowledge considered, thus the difficulty in associating the knowledge itself with that which the student is offered.

Teaching is centered on the teacher and based on the transmission of information.
(...)

These factors coincide with the analysis I am carrying out about the way in which teachers give lessons. The debate proposed based on the research, principally in respect of the teaching of geography, relates to creating conditions in the school which encourages the process of change in the way the teacher thinks about how to teach, knowing how to, implying a conceptual change in his or her role in the school and in the class room.

In this context, the task of teaching is in stimulating, motivating and giving meaning to knowledge, so that the student can learn to think about the world in which he lives, linking the concepts dealt with in the classroom with those observed day to day, developing spatial reasoning in order to read the city and have, in fact, the ability to think critically.

In describing the research activities in schools and continuous qualifying courses, it was noted that when there are activities that go beyond traditional parameters, the students become involved; further, that the conceptual evolution and the changes in routines and habits stimulate teachers and students in respect of teaching and learning, improving the self esteem of both. The research show us that there is still resistance of different varieties, as much in the postures on what we want and value in relation to the students, as for the student themselves in thinking, arguing and overcoming the inertia to which the student has been subjected since the early days of his school career.

Considerations

The discussions presented as a result of the research carried out make it clear that geography makes sense for the teaching and learning of Geography, since the didactic proposal is to integrate effectively the reality in which the student lives with the content, overcoming the common sense which is an obstacle to learning. Thus, students will be able to appropriate geographical knowledge so as to understand what happens in the world. Understanding reality is to appropriate scientific concepts and establish links with reality. If there is some type of discrepancy, this could be related to the teaching methodology developed in the school or the classroom.

When we deal with geography teaching methodology, emphasizing the importance of treating it from the geography education perspective, we are before a critical geography, articulating this with constructivist pedagogical lines and with contemporary cultural development. In accordance with this concept, it is hoped that geography teachers will adopt a didactic approach that incorporates, at least, possible models of reading and interpretation, field work, reading and interpretation of maps and images.

Becoming a geography educator implies constantly increasing knowledge of the geographical object but above all, understanding in respect of the role of the actions developed in the pedagogical project, with a view to the planned construction of knowledge of the object. The educator dominates the content, but has, above all, a strategic vision of his action in the school teaching project.

Therefore, to think of innovative and active methodologies means to understand the didactic geography field, implies asking about the knowledge present in the teaching process, to improve the quality of learning. For this reason we understand that skills on geographical knowledge are necessary, to construct proposals that aid this process, to the extent that theoretical-methodological choices are important in electing the themes and concepts' to be transmitted by means of the concepts.

The researches by me and my colleagues allowed me to see to what extent classroom activities, when truly focused on learning, can mobilize knowledge and the necessity for the teachers to seek new strategies for their lessons.

I further consider that the data obtained from the investigations carried out over these last few years are indicative of the fact that it is possible to make a public school of quality. I have no doubt that for this it is necessary to provide the conditions to accomplish school education, but it is still possible to aggregate cultural and theoretical elements during the activities carried out with the teachers, permitting a continuous analysis of their qualification.

At the end of this study I comment that based on the experiences and the research it is necessary to overcome limits so that in the school, learning situations will be possible. In this case I affirm that my desire goes beyond school walls. For this to happen, I will provoke with the following necessary ideas; the surmounting of four formal limits:

a) the formal physical limit that is that we believe that the learning process must go beyond the physical limits of the classroom, seeking other spaces within the school and outside,

in other institutions and in field work to study and get to know the city, by means of educative projects.

b) the formal limit of discipline, overcoming the barrier that knowledge is centered on the teacher, establishing dialogues between teachers and teachers and students and teachers, integrating formal knowledge with informal, with the knowledge that is acquired in the family, in the community and in society. Overcoming the formal idea of disciplines, conversations with scientific knowledge as well, without making it unique or the sole truth, but appropriating it critically, taking into account that the knowledge of the students is important, but so is scientific knowledge. It is that in appropriating these elements, we can amplify the sense of the student citizen, what he or she thinks, argues, and elaborates.

c) the methodological limit where we only do what works or that other didactic proposals are merely fashion, without taking risks, proposing different learning situations, establishing educative projects, problem solving, debates, forums ... resuming, all the didactic action that make learning possible.

d) the limit of treating school geography and physical and human geography, overcoming this dichotomy, the fragmentation between the geographies, treating it as a nature-human and economic (N-H-E) concept, overcoming the de-contextualization in teaching it from the starting point of daily city life, of the students' reference points through the medium of the language of maps and with theoretical-methodological fundamentals.

Overcoming these limits requires another teaching concept and curricular organization that is of a de facto democratic school and one which contributes to the formation of young citizens, excluded from many sectors of society. During the researches each time we heard „I learned that ...” it was truly touching and stimulated us to continue. .

Beyond the walls of the school and beyond what we have been able to construct so far, it is possible to affirm that we are able to improve teaching and reinforce the partnership between the basic public school and university. However, this is work that contributes to our search for reasons for the reason to live. Therefore, in concluding these researches I affirm that we still have much to do and to study, that is to say, I have not finished, but merely analyzing a stage of the investigations carried out and I propose a continuation of the debate about overcoming limits and the possibility of meaningful teaching and learning.

References

Bachelard, G. (1996). *A formação do espírito científico: uma contribuição para a psicanálise do conhecimento*. Rio de Janeiro: Contraponto.

Callai, H. C., Castellar, S. M. V., Cavalcanti, L. de S. (2007). Lugar e cultura urbana: um estudo comparativo de saberes docentes no Brasil. *Terra Livre, Presidente Prudente*, ano 23, v. 1, n. 28, p. 91-108, jan./jun.

Carvalho, C. D. (1925). *Metodologia do Ensino geográfico*. Petrópolis, tipografia das “Vozes de Petrópolis”.

Caso, M. V. F. (2007). Discursos y prácticas em la construcción de un temario escolar en geografía. In: Caso, M. V. F., Gurevich, R., *Geografía. Nuevos temas, nuevas preguntas. Um temario para la enseñanza*. Buenos Aires: Biblos.

Giordan, A., Vecchi, G. (1996). *As origens do Saber: das concepções dos aprendentes aos conceitos científicos*. Porto Alegre: Artes Médicas.

Luria, A. R. (1990). *Desenvolvimento cognitivo*. São Paulo: Ícone.

Ludke, M., Andre, M. E. D. A. (1986). *Pesquisa em educação: abordagens qualitativas*. São Paulo: EPU.

Monceau, G. (2005). Transformar as práticas para conhecê-las: pesquisa-ação e profissionalização docente. *Revista Educação e Pesquisa*, Vol. 31, No. 3, p. 467-482.

Novak, J. D., Gowin, D. Bob. (1984). *Aprender a aprender*. Lisboa: Plátano.

Pietrocola, M. (2004). *Reflexões histórico-epistemológicas e o ensino das ciências*. Tese (Livre-Docência). Faculdade de Educação, Universidade de São Paulo, São Paulo.

Pizzinato, L. Angélica R. (2007). *Uma Geografia escolar (in)visible: desarrollo del pensamiento espacial desde la construcción de conceptos geográficos*. Bogotá: Universidad Distrital Francisco José de Caldas.

Rodrigues, C. (2004). A urbanização da metrópole sob a perspectiva da geomorfologia – tributo a leituras geográficas. In: Carlos, Ana Fani de A.; Oliveira, Ariovaldo U. de (Org.). *Geografias de São Paulo. Representação e crise da metrópole*. São Paulo: Contexto, p 89-114.

Ross, Jurandy L. S. (2004). São Paulo: a cidade e as águas. In: Carlos, Ana Fani A., Oliveira, Ariovaldo U. de (Org.). *Geografias de São Paulo. A metrópole do século XXI*. São Paulo: Contexto, p 183-220.

Rue, J. (2009). Aprender com autonomia no ensino superior. In: Araujo, U., Sastre, G. (Org.). *Aprendizagem Baseada em Problemas no ensino superior*. São Paulo: Summus, p. 157-176.

Advised by Ana Claudia Ramos Sacramento, University of São Paulo, Brazil

Sonia Maria Vanzella Castellar

Ph.D, Professor and Researcher of Department of Teaching Methodology and Comparative Education, School of Education, University of São Paulo, Av. da Universidade 308, bloco A, sala 109, Butantã, 05508-040 São Paulo Brazil.
E-mail: smvc@usp.br
Website: <http://www3.fe.usp.br/secoes/inst/novo/>

Copyright of Problems of Education in the 21st Century is the property of Scientific Methodical Center "Scientia Educologica" and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.