

Formação Inicial em Educação Física: Uma Nova Epistemologia da Prática Docente

Initial Formation in Physical Education: a New Epistemology of the Teaching Practice

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Resumo: Pretendemos refletir sobre a necessidade dos docentes, que atuam na formação de professores em educação física, em romper com o paradigma técnico-instrumental, rumo a uma nova epistemologia da prática docente. Inicialmente estabelecemos um debate sobre o processo de proletarianização do ensino que alimenta a dificuldade em se romper com o paradigma dominante presente na formação docente. Após, buscamos compreender a necessidade de mudanças e as possibilidades de uma prática reflexiva no trato com o conhecimento na formação de professores.

Palavras-chave: Docentes. Ensino. Conhecimento.

1 INTRODUCTION

We see today, at an increasingly higher frequency, through declarations and/or questionings of docents in the superior education level, what forms of knowledge should be present in the initial formation and especially how to address them. According to Barbosa-Rinaldi and Martineli (2003), such knowledge can be found in publications and discussions and reflections in the main national events of the area or in the conflicts during the process of curriculum restructuring through which the physical education programs across the country have gone through in recent years. It demonstrates the researchers' concern about identifying problems and indicating interventions, as the need for changes is recognized.

Historically, it is possible to observe that Physical Education scholars started in 1980s to direct attention to these problems in an attempt to find a new standing to the superior education level, considering the importance of the initial formation, as essential knowledge for the professional practice is acquired in this period. This is the moment for future teachers to change or not their conception of Physical Education and assume or not a pedagogical practice influenced by the dominating culture. In this period, the academic community of Physical Education was mobilized to offer a formation program consistent with the Brazilian society aspirations and, unquestionably, these changes were required, but the discussions on professional formation are still current themes, as evidenced in studies about the formation process of Physical Education teachers (BETTI,1992; PALMA, 2001; MARTINELI, 2001; RIBEIRO, 2003, among others). Still today, the hegemonic paradigm and the technical or technological (instrumental) rationality are found

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in physical education programs, either in the way curriculums are structured or in the pedagogical practice of docents. Palma (2001, p. 15) points out that this knowledge area has been historically based almost exclusively on techniques, on how-to-do and how-to-teach, while “[...] learn how to learn was left behind”.

Kincheloe (1997) states that the dominant paradigm, present in the initial and continued formation of teachers, considers the contextualization of the cultural and social process in which we are inserted as dangerous, because the risk of depersonalizing the blame would be high, which would contribute to bad students and put the teacher’s professionalism at risk. Besides, eliminating beliefs, conceptions and values that are present, even not clearly evident, in today’s professional formation would be a risk too, because, for the most critical ones, the unknown causes certain fear. As the new ideas can bring changes, but are uncertain, it is easier to do it as we have always done it. However, it is more dangerous, considering that old ideas brought us where we are now and, if we do not change, they will take us to the future.

In this sense, docents with a critical and progressive view of education and professional formation seem to live with a constant discomfort upon this reality and search for solutions to eliminate the hegemonic paradigm. There seems to be a consensus among them that changes are required, since what is impossible today can be tomorrow’s standard. The challenge is to be ready to intervene in the reality, even knowing that there are possibilities and limits for that. The award for such audacious deed will be the pioneer title of a new reality.

In general, paradigms, in this case the technological paradigm present in Physical Education professional formation, screen the possibilities of change because there are rules and regulations (in the paradigmatic scenario of the area) that prevent focus changes. As a result, what seems obvious to us is related to the paradigm in effect and, in this case, in order to have effective changes, we should first eliminate it. Links with the paradigm in force should be broken, towards a new epistemology for teachers’ formation, that can contribute to a more participative and decisive society.

Based on that, we focused our reflections on the problems indicated, i.e., the difficulty in eliminating the technical-instrumental and dominant paradigm, towards a new epistemology for the Physical Education initial formation and, consequently, the difficulty of future teachers in teaching curriculum components of the area in our schools. We

selected the following question to guide our study: should we have a new epistemology for the initial formation of Physical Education teachers or not?

Knowing that these questions will require efforts beyond the limits of an article, we present below themes that in our assumption can help in the search for answers and understanding of this discussion. First, the discussion on the education proletarianization process that nurtures the difficulty in eliminating the dominant paradigm in education and physical education. After that, we will discuss the need for changes and, lastly, the possibilities of a reflective practice while addressing knowledge in the teachers' formation. These aspects suggest discussions about the current educational moment in order to ensure progress, not retrogression.

2 IDENTIFICATION OF THE EDUCATION PROLETARIANIZATION PROCESS IN THE INITIAL FORMATION OF PHYSICAL EDUCATION TEACHERS

The professional formation appears as an important way to ensure teachers the access to knowledge production, providing future teachers with theoretical-practical support. This way, the urgency for quality formation that ensures knowledge democratization is recognized by all areas (education, business, etc.), as well as the need to ensure autonomy in searching for and producing knowledge.

In order to intervene in the reality of the complex theme of teachers' formation, researchers from several countries have tried to contribute with diagnostic reports on the unsatisfactory situation of the systems for teachers' formation and proposals of actions and education reforms (PÉREZ GÓMEZ, 1992). Among them, we can mention some scholars from the United States: Donald Schön, Thomaz S. Popkewitz and Kenneth Zeichner; from Spain: Angel Pérez Gómez and Carlos Marcelo García; and from Portugal: Antônio Nóvoa and Isabel Alarcão, among others. They analyze the strong tendency of Teaching Licensure programs to graduate teachers unprepared to deal with most situations that happen in the teaching practice, as they receive an instrumental-based formation influenced by the technical rationality. This way, future teachers are not prepared to have autonomy in terms of knowledge acquisition and production and address knowledge in the teaching practice.

The technical or technological rationality discussed in this article is understood by Habermas (1968) as a way of thought present mainly in West and founded on the positivist philosophy. This thought became strong with the modern industry and, according to Santomé (1998), Fernández Enguita (1989), Hipólito (1991) and others, has the following

main characteristics (in school institution and teachers' formation): fragmentation of knowledge, segmentation of theory and practice, linear view of teaching tasks and learning processes, teaching conceptions as a technical preparation process and practice as a technical process of intervention. This is the education model that has been present in our schools and graduate institutions until today.

This is not different for the physical education teacher formation, since addressing this area of knowledge in the initial formation also corresponds to the model of technical rationality. It suggests an instrument-based tradition and in general has contributed to education crisis prolongation at all education levels.

One aspect of the education crisis related to the influence of technical rationality that has been discussed by scholars such as Fernández Enguita (1991), Apple, Teitelbaum (1991), Orza, Lawn (1991), Wenzel (1994), Hipólito (1997), among others, refers to the effects of this influence on teachers, as they, along with other professionals in history, have been expropriated of their knowledge, i.e., they have suffered a process of professional proletarianization and disqualification.

For these authors, the thesis of proletarianization¹ is based on the fact that the teacher has become salaried and was changed from an individual professional into a collective worker, according to the capitalist production relations. This new work condition took the teacher to a disqualification process, which means loss of control over the work process and loss of social prestige.

According to Hipólito (1997, p. 85), the teacher, in the perspective of the theory of proletarianization, “[...] goes through a professional formation process at an institution (graduate agency), which provides the teacher with certain instruments comprised of disciplines (contents) and methodologies (ways of content transmission)”. This agency made all efforts to provide everything it regarded as necessary for the future teacher to present a good teaching performance. After this initial formation, the teacher enters the labor market, or better yet, a second graduate agency, which is the school. “The school is already organized according to a certain work process that defines and adjusts the school work that will be performed there (programs, type of work, evaluation, etc.)” (HIPÓLITO, 1997, p. 85). At this moment, the teacher realizes that, when selling his labor power (for a salary), he is submitted to a work process that was previously established and, for this

¹ We will not address all aspects related to the Thesis of Proletarianization due to the amplitude of this theme and because it is not required for the development of this study. For this reason, only the aspects directly related to this study will be discussed.

reason, the teaching practice is not exclusively dependent on the teacher's will. This type of school organization brings some consequences to the teaching profession, as well as to workers of other social sectors.

According to Fernández Enguita (1991), Apple, Teitelbaun (1991), Orza, Lawn (1991), Wenzel (1994), Hipólito (1997), among others, one of these consequences is the separation of conception from execution, as the teachers lose the right to control and plan work to become mere task performers, and to make things worse, they do not care about this situation, assuming a position of quietude. The characteristic of this type of work organization generates an additional consequence: the teacher's professional disqualification.

In fact, when entering the labor market, the teacher is surprised with the reality. During his initial formation, he received the knowledge regarded as necessary to perform the teaching practice; however, the reality was not exactly as expected. The teacher realizes he does not have any control over his work, due to the school work rationalization and that, the more complex the school organization, the greater the control over the teacher's work (HIPÓLITO, 1997).

According to Fernández Enguita (1991), with the loss of autonomy and possibilities of making decisions, the teacher does not need knowledge and skills anymore. This way, the professional disqualification and the possibility of knowledge expropriation are reinforced with the teachers' labor division. The author also points out that, in practice, this reality can be visualized at first through "[...] the proliferation of specializations and confinement of teachers in areas and disciplines" (ENGUITA, 1991, p.48) and in second place, through "[...] the delimitation of functions attributed in a separated manner to specific workers". This is the case of instructorship, special education, psychological service and other disciplines, such as physical education, among others.

This way, according to Wenzel (1994), the teacher tends to increasingly deviate his responsibilities towards the functions of director, coordinator, psychologist, etc., and gradually forget the conception process, teaching production, breaking this way the links with philosophical, sociological and historical questions.

In this sense, the school organization collaborates to the professional disqualification process, once it takes certain functions away from the teacher and transfers them to other professionals in the institution. Therefore, the responsibility for the teacher's

loss of autonomy and practice quality is not solely of the teacher, as the system starts this process.

Another aspect that should be noted is that, as a result of the school organization model in force, the requirements related to the teacher's formation are progressively less demanding. With the pedagogical practice organization in the form of labor division, the teacher is not required to conceive work, but only follow an imposed organization. Skills are not required either in terms of the teacher's intellectual dimension, as either way, the teacher will end up alienated. Then, the teachers' education has expropriated their culture and disqualify them.

The reduction of knowledge universe is also present in the superior education level, with the predomination of technical and scientific contents, and in the manner disciplines are organized, fragmenting knowledge and not allowing future teachers to think, reflect and make their critical analyses on knowledge or relate them to their professional practice. The future teacher's life history is not taken into account and, according to Palma (2001, p. 11), it seems that "[...] the student is a blank page, a *tabula rasa* to be modeled. The relevance given to what is evaluated is also highlighted, placing the focus for the explanation of knowledge forms that can be measured". The human formation is evidently in second place.

Based on the considerations above, we realize the teacher, as a collective worker, is submitted to a process of professional disqualification and knowledge expropriation, losing the control over the process, or better yet, not conceiving his work.

As consequence, the teacher does not lose only the control over his own work, but also the means to try to break the links with the system in force towards a transforming practice. One of the factors that causes this situation is the presence of technical rationality at all education levels, including the superior level. This way, most programs of teachers' formation have contributed to the perpetuation of social relations presently found and have prepared teachers to a reproduction practice, not a transformation practice.

We understand the renovation of the Physical Education teacher formation is necessary and urgent, aiming at preparing professionals that can understand the complexity of social realities in which were are inserted and contribute to its transformation, in order to become producers, transformers and co-creators, instead of knowledge reproducers. One of the ways to make it happen would be to eliminate the technical rationality model present

at all levels of education and initial formation, towards a new epistemology of the teaching practice.

3 DEALING WITH KNOWLEDGE IN THE INITIAL FORMATION: THE NEED FOR CHANGES

Today, we could select many studies developed in several countries that discuss the initial formation of teachers based on the technical or instrumental rationality model. However, we will mention the studies that we regard as the most important ones: from the United States of America, the studies conducted by Donald Schön, Thomaz S. Popkewitz and Kenneth Zeichner; from Spain, the studies conducted by Angel Pérez Gómez and Carlos Marcelo García; and from Portugal, the studies conducted by António Nóvoa and Isabel Alarcão. These investigations analyze the strong tendency of Teaching Licensure programs to graduate teachers/professionals that will be submitted to the production system and capitalism and, this way, perform a reproduction practice, with no political commitment in terms of social transformation.

Then, it seems clear to us that the unilateral and positivist approach of science, following the technical rationality models, offers a very limited purpose, in any social practice, just as in the case of the practice of the teacher who is encouraged to face problems of great complexity and uncertainly. Pérez Gómez (1992) says that the education practice should not be conceived as a technical activity only, since it especially is a reflective and artistic activity in which some technical applications are adequate in some situations.

When understanding the identity of the physical education teacher has a social intervention character, we believe the instrumental knowledge should not be prioritized, despite its relevance. The major problems to be faced in the teaching practice are not those well defined and with consensual targets, but the uncertain, unique, variable, complex problems, with conflicts of values. In this situation, the reality nature will determine the characteristics of the most adequate procedures, techniques and methods.

Regarding this theme, Schön (2000, p.17) explains that, in the pedagogical practice, “[...] uncertainty, singularity and conflicts of values cannot be controlled by the technical rationality”, as, in the teaching practice, the teacher will encounter unique situations and, therefore, will not be able to deal with them by simply applying techniques from his professional knowledge. Most situations of the teaching practice cannot be solved as a

technical question, as it involves judgement of values. The author confirms that, in certain situations, the scientific knowledge solves the nature of the problem, but that there are other situations in which they type of knowledge does not provide the required support to address them. The author compares these situations to two types of grounds: the first is firm and at a high place, the problems can be solved by using theories and techniques based on studies; the second is swampy and full of irregularities, with chaotic and confusing problems, and in this case the teacher should make all efforts to solve them. It is up to the teacher to choose the easiest and least important problems, at a high place, or go down to the swamp and try to solve more relevant problems of less rigorous investigation.

However, for the physical education teacher to be in conditions to look at the two types of ground and decide, the initial formation should be reviewed and reorganized. Otherwise, when choosing to solve the problems at a high place, the teacher will have a distorted view of the reality and contribute to its reproduction. Schön (2000) supports this idea when he says that the presence of technical rationality in the graduate programs is a threat to the professional competence, because it favors the less relevant instrumental problems of the practice.

Habermas (1982) adds that positivism and, consequently, the technical rationality refuse self-reflection and the knowledge reflection when assuming the submission to the method that reduces reason to a simple investigation technique. The reflection form of science prohibits any reflection that goes beyond the boundaries of science and any knowledge that is not a science knowledge has no relevance.

Then, how can the future physical education professionals, based on a formation influenced by technical rationality, develop pedagogical practices to deal with the situations that go beyond the leveled grounds without irregularities if they are modeled to not go beyond these boundaries? With this type of formation, future professionals are not forced to conclude that the most enriching and important situations are exactly on the swampy, wet and fertile grounds, just because they are uncertain, unique, variable, complex and with conflicts of values. The solution is a new epistemology for the teaching practice in the initial formation of Physical Education professionals.

4 POSSIBILITIES OF ADDRESSING KNOWLEDGE IN TEACHERS' FORMATION: THE REFLECTIVE PRACTICE IN QUESTION

In the last two decades of last century, we identified a change in investigations in the area of teachers' formation, which became stronger especially in the 1990s: the epistemology of reflective practice, that found in Schön (1992) a common theoretical source. It has been discussed significantly by authors such as Zeichner (1992, 1993), Pérez Gómez (1992), Alarcão (2001) et al., for the progress of formation programs. It has suggested the need to break the links with the technical rationality model in the initial formation of teachers, employing a teaching practice with an attitude of reflection on that practice, before, during and after the practice, searching for elements that can help improve it.

The origins of the studies on the reflective teacher and the reflective formation of teachers date back to Dewey (1859-1952) and Zeichner (1993, p.17). When addressing the origins of the term "reflective practice" in the United States of America, studies evidence that, in the beginning of last century, John Dewey "[...] made an important distinction between the human action that is reflective and what routine is like. Most of what Dewey said about this subject was applied to teachers and continues relevant in the 1990s". Dewey presents the concept of reflective thought and its implications for the pedagogical practice in *How we think*, written between 1896 and 1903 and published in 1933, which became a reference to authors that propose the reflective practice to teachers. This work was published in Portuguese in 1953.

We notice that Dewey (1953, p.85) understands the reflective thought as a broader way to think, which requires an investigatory process, appreciating the means to solve a problem. For this reason, the author confirms the need to educate the thought, declaring that "[...] a well educated spirit knows in each special case how to better calculate the necessary dose of observation, idea, reasoning, experience and whatever can be used from past errors for better reflecting in the future". Based on Dewey's thought about the distinction between the action of thinking by chance and the reflective thought of the reflective teaching practice founded on problematization and its importance to learning, it is possible to understand the initial meaning attributed to the reflective practice.

In addition, it should be noted that, besides Dewey, Schön (1992) informs that this movement involving reflective formation can be found in Montessori (1870-1952), Tolstoi (1828-1910), Froebel (1782-1852), Pestalozzi (1746-1827) and even in Emile, by Rousseau (1712-1778), who is in the middle of an epistemological conflict.

Another important contribution to the movement involving reflective formation is in the criticisms of Jürgen Habermas (1968) to positivism and technical rationality, as the author states that such rationality refuses self-reflection and reflection. He points out that, for being aware of the inadequacies related to the technical rationality, we need to be able to use more human and creative facts of ourselves in all professions. Also for this reason, the authors that defend the epistemology of reflective practice agree with the critical position of Habermas upon this question and build the theory on the reflective action, using reflection as both the start point and end point.

Pimenta (2002) says that, in Brazil, the contributions to the concept of reflective teacher brought by foreign authors in the 1990s, such as Schön (1992, 2000), Pérez Gómez (1992), Zeichner (1992, 1993), Marcelo García (1999), Elliott (1994), Nóvoa (1992), among others, were welcomed because they enabled perspectives for the democratic school reinvention.

Lüdke *et al.* (2001, p. 12) add that it is likely this idea has been accepted with satisfaction “[...] perhaps because it corresponds to a natural desire at the time, through methods that allowed to take the teacher away from an almost irremediably passive position, consolidated by the Theory of Reproduction in the previous decade”. However, the success of the reflective practice concept was so strong that it ended up provoking cause of disconnection, completely emptied uses or even opposed to the original meaning of the proposal. This reality has aroused criticism to the generalized adaptations the reflective practice concept allows.

According to Pimenta (2002), the criticisms to the reflective practice proposed by Schön (1992, 2000) are related to teacher overvaluing as a human being, with the construction of teaching knowledge only based on practice, with the individualistic character of reflection and with the reduction aspect of its utilization when understood, in such way to ignore the social context in which this practice is inserted. On the other hand, the same author recognized the reflective practice has been instituted as a “[...] significant tendency in education researches, indicating the appreciation of processes for teaching knowledge production based on practice and considering research as an instrument of teachers’ formation” (PIMENTA, 2002, p.22), in which teaching is the start point and end point in research.

In this sense, for valuing the contributions from the proposal of Schön and, for having a consensus on the need to develop this idea, different study proposals have been

presented, such as those of Nóvoa (1992), Zeichner (1992, 1993), Pérez Gómez (1992, 2001), Giroux (1997), Gimeno Sacristán, Pérez Gómez (1998), Marcelo Garcia (1999), Alarcão (2001, 2003), Tardif (2002), Pimenta (2002), Contreras (2002), among others.

We consider these proposals are relevant, since they indicate possibilities of addressing knowledge in the initial formation. And, in an attempt to understand the context of pedagogical practices in this period of formation, we searched for perspectives of analysis regarding critical reflection in different authors, aiming at keeping the dialects of reflection during the education practice that comprises teaching knowledge, among other actions.

In a reference to the model of teachers' formation as reflective artists, Pérez Gómez (1992) ensures that the epistemology of reflective practice is presented as a proposal of reflective practice teaching for the professional formation, in which the practical experiences in education, aiming at knowledge-in-action, have been present since the initial preparation, mediated by reflection-in-action and reflection-on-reflection-in-action. In this model, the reflective practice becomes the pillar of the teachers' formation curriculum and should promote the development of "[...] capabilities, knowledge and attitudes that are not dependent on the assimilation of academic knowledge, but the mobilization of another form of knowledge produced in dialog with the real situation" (GIMENO SACRISTÁN; PÉREZ GÓMEZ, 1998, p. 21), develop the dialects of reflection in terms of how to make use of knowledge in the situations encountered in the pedagogical practice. For this purpose, the teacher should perform a "[...] critical mediation of knowledge utilization" (GIMENO SACRISTÁN; PÉREZ GÓMEZ, 1998, p. 21).

According to Pimenta (2002, p. 26), knowledge, theory as objectivated culture, besides its formation role, will enable a contextualized action of future teachers as soon as the theoretical knowledge articulates with the practice knowledge, "[...] at the same time, giving a new meaning to knowledge and receiving a new meaning from it too". This way, the role of theory is to offer "[...] perspectives of analysis for us to understand historical, social, cultural and organizational contexts, as well as from themselves as professionals, in which their teaching activity is developed, in order to intervene and transform them" (PIMENTA, 2002, p. 26). That is why it is important to review the knowledge required for the teaching practice, as, when allowing the acquisition of some knowledge, we will be promoting the possibility of building additional knowledge based on a critical and reflective practice in which the future teacher can acquire autonomy.

About this subject, Tardif (2002) says that, although the initial formation is composed of disciplines comprised of knowledge which most times is poorly established in the routine action, it is not necessary to eliminate the disciplinary logic of the graduate programs, but create larger space for a professional formation logic that “[...] recognizes students as knowledge subjects and not merely pure spirits to which we provide only disciplinary knowledge and procedural information [...]” (TARDIF, 2002, p. 242). This logic should be considered by means of a reflective focus when analyzing the real teaching work conditions.

Then, we believe that we cannot run the risk of knowledge elimination, we should neither discard knowledge that were historically produced nor value only the practice just as a practice, because we would be contributing to a professional disqualification process of physical education professionals.

Regarding the pedagogical procedures in the initial formation process, Zeichner (1993) recognizes in the reflective formation a strategy to improve the teachers’ formation because it enables increased capability to handle the teaching practice complexity. But he warns that teaching should occur as a critical activity, using reflections on the practice, for a social reconstruction. The social and institutional context in which education is inserted cannot be ignored. In this sense, reflection can only take place if performed in collective actions, in learning communities, in which teachers support and encourage one another, aiming at the construction of more human societies.

Giroux (1997), when presenting limits to the proposal of Schön, develops the conception of teacher as a critical intellectual. In this conception, reflection is collective and the teachers need to develop a speech that joins the criticism language and the possibility of promoting changes, giving the reflection the clear sense of emancipation commitment to transforming social inequalities inside and outside the school. In addition, he says that the students should be given “[...] the opportunity to become citizens with knowledge and courage to defeat despair and fight for hope” (GIROUX, 1997, p. 163), valuing the acquisition of historically produced knowledge. With this study proposal, the author intends to theoretically criticize the technocratic and instrumental ideologies present in many educational theories and appreciated in the superior education level, which separate “[...] curriculum conceptualization, planning and organization from the implementation and execution processes” (GIROUX, 1997, p. 161). He tries, with this

discussion, to break the links with the process of proletarianization and professional disqualification, which have a strong presence in the superior education level.

Contreras (2002), when criticizing the reflective conception of Schön, shows resistance to the idea that reflection alone enables to understand the social and institutional factors that interfere in the teaching practice. At the same time, he suggests that Giroux does not show how teachers can make the transition from technical reproducers individually reflective to critical intellectuals and transformers. Then, he proposes the model of professionals as critical intellectuals that take part in the effort to understand the social and institutional factors that are hidden in the education practice and that affect it, as the actions are not spontaneous or natural, they are day-to-day discoveries. For this author, reflection is relevant to the teaching practice only in this model.

Pimenta (2002, p. 39), when recognizing the amount and speed of information in today's society, postulates that a teacher needs to have "[...] scientific, technical, technological, pedagogical, cultural and human [...]" preparation and should be "[...] a professional that reflects on his practice, studying it in the contexts in which it occurs". For this purpose, when assuming teaching activity is praxis, the author says the teacher should be seen as an intellectual always under construction and that education is a dialectical process in which man develops historically. The teaching professional identity should change the role of "[...] reflective teachers to the role of critical and reflective intellectuals" (PIMENTA, 2002, p. 47).

In this perspective, it is necessary to prepare the future teachers to be promoters of their own professional development and, for this purpose, the authors that defend the epistemology of reflective practice highlight the need to develop the teacher's reflective and investigative capability to enable the teacher's understanding of the complexity that involves the education practice. This way, the initial formation of physical education teachers should have a curriculum organization that enables the adaptation of necessary knowledge through knowledge-in-action proposed by Schön (2000) and investigation-action (ELLIOTT, 1994, 1998), which lead the teacher to self-knowledge.

The investigation-in-action or investigation-action proposed by Elliott (1994, 1998) allows human actions and social situations to be experienced by students/scholars during the initial formation of Physical Education teachers. Based on this theoretical-methodological reference, the formation goes through experimentation, innovation, testing of new work methods and critical reflection on their utilization. According to Nóvoa

(1992), it also goes through formation processes directly articulated with the education practices that lead future teachers to the production of knowledge related to the teaching practice.

We were concerned about ensuring in the initial formation the knowledge required for the teaching practice. For this purpose, we understand that is necessary to develop the technical competence, since it is connected to the teaching routine situations. One of the paths to acquire such competence is the investigation-in-action (ELLIOTT, 1994), through the development of *practicum* (ZEICHNER, 1993), and not in simulated situations. And considering that the technical competence relevance will only be consolidated if it could be successfully taken to the contexts of the teacher's practice by means of problematization and search for problem solution.

In order to make it effectively happen, the future Physical Education teacher should be prepared to face and critically reflect on the phenomena and conflicting situations in the physical education practice at school. For this reason, the programs need to establish a close relation with the school to provide a more adequate formation to the teaching practice.

Another aspect addressed in the new orientations for Teaching Licensure programs is that the pedagogical practices should be included in the first years of the program and the supervised training program in the second half of the program. It collaborates to a teacher's formation based on critical and reflective practice since the beginning of the program. In this sense, the contributions of Schön (1992, 2000) and discussed by other authors should be enabled during the experiences of teaching practice in such way to prepare the future teacher for the adoption of a critical and reflective practice along all the teaching practice. For sure it will contribute to better conditions for future teachers to overcome conflicts in the development of his pedagogical practice. For better results, this possibility of addressing knowledge could be applied to other disciplines, as the teacher the of supervised training program should not necessarily know the school.

In this sense, Zeichner (1993, p.14) adds that the reflective *practicum*, characterized by the investigation mediated by the reflective practice, should be one of the "[...] structured moments of the pedagogical practice, integrated into the teachers' formation programs". In this perspective, the *practicum*, as a methodological practice, would contribute to the interaction of theory and practice, knowing and knowing how to do it, and consolidate as a possibility to break the links with knowledge fragmentation in the initial

formation of Physical Education professionals, which would place future teachers closer to the reality of their teaching practice.

According to the authors that defend the epistemology of reflective practice, including Zeichner (1993), reflection in the process of professional formation should not be seen as a group of techniques, but as a recipe. It should be established in a process of thought, analysis and interpretation, and before, during and after the action, requiring a preparation for adopting the reflective practice. To make it happen, this epistemology of reflective practice should be present in all moments of the professional formation.

In short, we suggest in this study the need for a professional formation of Physical Education professionals that addresses the critical and reflective formation. For this reason, we presented a discussion on a pedagogical practice that considers the value of the epistemology of reflective practice.

5 FINAL CONSIDERATIONS

The teaching act involves antagonistic positions. It can be, at the same time, enriching and repressive. As stated by Freire & Brito (1987, p. 35), “[...] in order to know the world and the cultural reserve accumulated by the humanity experience, it is not necessary to unknow ourselves and prevent the expression of our originality”. That’s only in the learning act that we need to “[...] unlearn certain things, i.e., get rid of what was taught to us in terms of how-do-do and how-to-think, to the detriment of free expression of spontaneity” (FREIRE; BRITO, 1987, p. 35).

When addressing the same knowledge, we can have an authoritarian teacher and another who works within a system as required. We can have a teacher that allows the students to know only, with no learning, and we can have a teacher that favors knowing and learning. For this reason, addressing knowledge in the initial formation is such a relevant task. As determined by Pimenta (1999, p. 22), the existence of knowledge should be more than simply informed, because “[...] knowing means being aware of the knowledge power to construct the material, social and existential way for humanity”.

For a pedagogical practice that allows to develop autonomy and creativity in the students, we need to break the links with authoritarian relations. It means that the most important point is teaching these teachers how to study, make researches and teach, helping them develop their critical capability and assimilate what to do with knowledge.

The future teachers will only know the value this freedom of ‘learning how to know’, what to do with knowledge, if they could experience it in the initial formation of physical education professionals. It shows that the teacher’s role in the initial formation should be that of a mediator of knowledge, in terms of enabling future teachers to develop reflection.

In this sense, Pérez Gómez (1992, p. 112-3) warns that the teacher in charge of the initial formation “[...] should be able to act and reflect on this own action as such, should realize that his intervention is a practice of second order, a process of reflective dialog with the master-student about education-related situations”. In this sense, we consider the initial formation of teachers as the point in which teachers not only teach, but also learn. For this reason, they are reflective subjects, because they open perspectives to reflect on their pedagogical practice.

To make this happen, the teacher in formation programs for the future teacher should also adopt a reflective practice in his pedagogical work. A new epistemology of the pedagogical practice should be established in the formation period, and this new system should be based on a reference that enables this type of intervention.

Initial Formation in Physical Education: a New Epistemology of the Teaching Practice

Abstract: Our intention was to reflect on the need of the docents that work in the formation of physical education teachers to eliminate the technical-instrumental paradigm, towards a new epistemology of the teaching practice. Initially, we established a debate on the education proletarianization process that nurtures the difficulty in eliminating the dominant paradigm in the teacher’s formation. After that, we discussed the need for changes and the possibilities of a reflective practice while addressing knowledge in the teacher’s formation.

Key words: Docents. Education. Knowledge.

Formación inicial en Educación Física: una nueva epistemología de la práctica docente.

Resumen: Pretendemos reflejar sobre la necesidad de los docentes, que actúan en la formación de maestros en educación física, en romper con el paradigma técnico-instrumental, rumbo a una nueva epistemología de la práctica docente. Inicialmente establecemos un debate sobre el proceso de proletarianización de el ensino que alimenta la dificultad en se romper con el paradigma dominante presente en la formación docente. Después, buscamos comprender la necesidad de mudanzas y las posibilidades de una práctica reflexiva en el tracto con el conocimiento en la formación de maestros.

Palabras-clave: Docentes. Enseñanza; Conocimiento.

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