

Possibilities for Problem-Based Learning: for realization of the concept of “classes open to experiences”¹

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Abstract: The concept "Open" in Teaching of the Physical Education pertaining to the Brazilian school has pointed so that if it has guided the lessons in the inquiry (UFPe-UFSM Pedagogical Work group, 1991). This research had as objective to apprehend, in an experience of education in the Child Physical Education, pedagogical possibilities for the accomplishment of this orientation. The explorer-descriptive research was used as methodology. For the interpretation of the lessons hermeneutics, the art to understand was used as method. Of the work conducted, three possibilities for the accomplishment of the problem-based learning have been opened: the challenge, the inquiry and the task.

Keywords: Problem-Based Learning. School Physical Education. Child Education

1 INTRODUCTION

According to Bracht (1999), as of the 80s, Physical Education in Brazil has observed a movement called renovating movement of Brazilian Physical Education.

The author systematizes it in two instances. The first was aimed at giving Physical Education a scientific character, such that pedagogic practice was oriented by the knowledge produced by the natural sciences, or its paradigm of scientificity. Bracht (1999) cites the developmentist approach and psychomotricity as examples of proposals that have this scientific character of the natural sciences. The second instance is characterized by the development of teaching conceptions linked to a Critical Theory of Education. The author cites the following conceptions: Open Teaching; Critical-Excelling; and Critical-Emancipatory.

However, the execution of these teaching conceptions, of critical nature, has not occurred in the school day-to-day (OLIVEIRA, 2000). Kunz (2006) also cites the existence of indicators that the teachers who have worked in Physical Education have faced difficulties to carry out these innovative proposals. The author cites the theoretical deepening of the area, evaluating that a good substantiation was created from the Human and Social Sciences. However, it is believed that the Physical Education of Critical Conception that was formed up

¹ This article is a cutout from a study in which, besides problem-based learning, we indicated possibilities for a learning based on the student, on the process and on communication.

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to the present has been limited to sectors of professional education and some post-graduation programs, still not having reached the school reality. It thus indicates, to carry out the teaching proposals, that we extrapolate the theoretical field, and also be able to understand the location where these theories should be carried out, the school reality.

The importance of this approximation to the empirical field is also defended by Bergson (1979). The author believes that the more alive the reality touched, the deeper the probing. He cites as the mark of the start of modern science the day in which Galileo decided to investigate the laws that govern the movements of bodies, studying the rolling of a ball on an inclined cloth. Thus, the Italian scientist sought the Principles of Physics in movement itself, instead of seeking it in concepts, as Aristotle did.

In Hawking & Mlodinow (2005), we understand better Bergson's thinking in the previous citation. According to the authors, before Galileo, people believed in the ideas of Aristotle regarding the movement of bodies. To the Greek thinker, on releasing two bodies in the air, the heaviest would fall more quickly as it would be pulled more toward the earth. According to the Aristotelian tradition, it was believed that it was possible to discover all the laws of the universe through pure thought, no one had ever verified such presupposition. Until Galileo did something similar to the situation described. He left balls of different weight roll downwards in a smooth slope because in these conditions it would be easier to observe them by reducing the speed of the bodies. According to the measurements made, it was found that each body increased its speed at equal rates, regardless of their weights.

According to the UFPe-UFSM Pedagogic Work Group (1991), the Concept of "Open Classes" is summarized in four points: the student-based learning, in the process, in problems and in communication.

Thus, this survey was aimed at understanding pedagogical possibilities for the conduction of problem-based learning in Child Physical Education, which has originated in a Child Education Center (NEI), located in Florianópolis municipality. As specific objectives: To understand the pedagogical legitimacy of problem-based learning; to interpret the development of classes, conducted in the school reality, from the understandings constructed from this orientation of the Conception of "Open Classes"; and to indicate pedagogical possibilities for conduction of problem-based learning in Child Physical Education.

In view of the need for researches from the area to approach the school reality, we understand the need to conduct studies that investigate how these learning concepts have been inserted in the reality of the NEIs.

However, if we perceive the need to focus on this empirical field, we also do not neglect the importance of the theoretical substantiation of these interventions. Freire (1987) warns educators not to allow themselves to be taken by mere activism. That is, by practice without fundament, in which there is priority for action, even if opposed to knowledge.

2 METHODOLOGY

Starting from the work objectives and classifications proposed by Gil (1996), we characterized the survey as exploratory-descriptive. According to the author, the exploratory surveys have as objective approximation to the problem, contributing toward improving ideas or discovering intuitions. He cites the analysis of examples, which encourage understanding, as one of the most common ways of conducting this method. The author believes descriptive survey to be the works that aim describing the characteristics of a certain population or phenomenon. The same author identifies such surveys, as well as the exploratory surveys, due to usually being used by social researchers concerned with practical procedure.

The survey was developed through observation, recording and interpretation of five (5) Physical Education classes conducted in NEI Judite Fernandes de Lima, belonging to the Florianópolis Municipal Network.

The classes were ministered to the groups denominated in the institution as G5 and G6, with students in the age range of five and six years respectively and approximately². The number of classes observed was determined in function of the operational possibilities of the researcher during the period of the work's elaboration. The choice of these groups was because they coincided with the researcher's availability in the times in which the classes of these groups were held. The observations were made in the last weeks of the school year of 2006, in the months of November and December.

The teacher who ministered the classes observed had been working in the Public Network of the Municipality as Physical Education Teacher for sixteen years. Out of these, the last four years of work were in Child Education. He is currently studying for a doctorate in the Physical Education Post-Graduate Course from Universidade Federal de Santa Catarina - CDS/UFSC and is a participant of the Study Group made up of teachers from the

² The year following conduction of the classes observed, in Florianópolis municipality, the children aged six years, in the beginning of the year, entered Elementary School, and no longer Preschool, the former now having nine (9) grades and no longer eight (8).

Florianópolis Municipal Network, who study themes referring to Physical Education in Child Education.

The teacher mentions the Concept of “Open Classes” as one of the theoretical referential that legitimizes its pedagogical practice. He also cites other referentials, highlighting studies from Phenomenology.

A VHS video camera and a digital photographic camera were used to record the classes. Such procedures were aimed at enabling different perspectives of observation, of the same moment, in delayed fashion.

To interpret the theoretical referentials and sewing (intertwining) of these with the classes observed, hermeneutics was used as methodology, whose preliminary concept, according to Schleiermacher *apud* Braidão (2000, p. 29) is that of “[...] art of correct understanding of the discourse of another.”

Starting from the belief that understanding of the discourses not does occur on its own, but through a conscious effort, Braidão (2000) sees the need for hermeneutics as methodical practice, which differs from natural practice due to demanding supply of the reasons for the understanding attained.

Heidegger (*apud* RÊE, 2000) believes that, due to the fact that we are users of a language, it is inevitable that we are part of a history that always outbids us, since: “[...] a language is evidently a historical entity – a dynamic and multifaceted cultural inheritance, of baffling complexity, product of poetical, grammatical and philosophical labors of countless antecedent generations” (RÊE, 2000, p. 20). Therefore, hermeneutics brings us closer to this history on performing the two tasks cited by Braidão (2000): determining the meaning of a world within the context of language shared by a community in a given historical time, and determining the meaning of a word within the context of the phrase of a discourse by an individual from this community.

3 LITERATURE REVIEW

Before conducting this work, in literature, the Concept of “Classes Open to Experience” had been considered for Elementary Education and High School only. However, this does not mean that one cannot think of learning in Child Education in an *open* manner. Just that, on its presentation, that was the field of experience of the proposers. The authors

themselves, Hildebrandt & Laging (1986, p. IX), mention that this concept of learning is *open*:

What is not intended is: - To present a *didactic concept* that is "ready" for an open education. This principle is based, with its practical examples, much more on the *present situation* of theoretical knowledge and practical experiences. It is subordinated to constant review and continuity of development.

However, we cannot allow us to be led through easy but superficial paths. Such that simple methodological transference of the existing proposals - for Elementary School and High School, for interpretation of classes, in Child Education, seems to us inadequate to attain our objectives.

We thus believe it is important for us to understand the origins of the orientations of this learning concept to actually possess it. Once internalized, we can experience and discuss the possibilities for its conduction in this level of learning.

Heidegger (apud RÉE, 2000) clarifies that, to possess an inheritance, one must assume its control and give it a new *opening* to the future, and not just follow behind it guided by its past. With this, it becomes necessary to deconstruct the history of Open Concept in Physical Education in the Brazilian school, in order to recover it as a learning concept that is about to be introduced. Going only after its past, this is what happens with the tradition:

The tradition, on thus arriving at its dominant position, immediately and often makes what it "transmits" little accessible, in fact hiding it. It delivers this legacy to self-evidence and obstructs access to the primordial "sources" from which the concepts and categories that were transmitted to us were legitimately extracted in part. The tradition even causes us to completely forget this origin and suppose that we do not even need to understand the need for such a return (RÉE, 2000, p. 21).

Thus, we *opened* new meanings to understand communication-based learning, substantiated on the interpretation of "new" theoretical referentials. Some of these works have already been pointed out by Cardoso (2002; 2004) for the search and understanding of the current space-time conditions of 'moving oneself. We highlighted the "new" terms such that these references have not yet received the due attention from the area of Physical Education, however, one can say that the direction toward which they point has been indicated for a long time by different civilizations and cultures.

3.1 PROBLEM-BASED LEARNING

*Do not look at the finger that points
when you want to admire the full moon.
(An Old Zen Master)*

The UFPe–UFSM Pedagogic Work Group (1991) cites learning based on defined goals. However, as an alternative possibility to this learning, the authors indicate basing the class on problems.

ON DEFINED GOALS	ON PROBLEMS
The class based on defined goals is constructed to obtain well-defined learning objectives, which are formulated as motor attitudes that the students must perform. For example, when the student must stop the soccer ball in the middle of the chest with the right foot, and at the same time the support leg must be beside the ball. He will fix the foot's articulation and advance half body over the ball. To attain the goal, the paths toward learning are already specified and the forms of the class' organization as well. The teacher should only conduct it. At the end of the class, there is a learning evaluation, in which the class' success is judged.	The class based on problems originates in a problem situation. For example, to create a game with a situation presented by the students in the class or with a problem resulting from the class itself. What is important is for the solutions not to be fixed beforehand. The students must create, experiment and evaluate together and with the help of the teacher the various possible solutions.

Table 1 – Learning based on defined goals and on problems
Source: UFPe/UFSM Pedagogic Work Group (1991, p.39).

To obtain the citations from the authors, we started directing our attention to one of the sides that best represent the Open Classes. This reveals them as classes in which the teachers and students are *open* to the various possibilities of solutions to the problems, not being limited to just one of the possible paths, previously drawn by the educator.

The student is given the task of seeking various possibilities of movement. Thus, in this learning concept, the educational act does not occur by the pouring out of solutions, sought by the teacher. In Freire (1987), we found a simple and suitable representation of the learning that is limited to the distribution of ready answers to the students, which the author calls 'bank education'. Here, the students are conducted to mechanical memorization of the content narrated by the educator. They are converted into “containers”, in “recipients” to be filled. Thus, teachers and students are evaluated as follows: “The more the recipients are “filled” with his “deposits”, the better the educator. The more they allow themselves to be “filled” obediently, the better students they will be” (FREIRE, 1987, p. 58).

In Alves (2001), we will find another faithful representation of this learning based on defined goals: “The equality of the final objects is proof of the process’ quality. What is not equal, that is, what shows some peculiarity that distinguishes it from the ideal object, is eliminated” (ALVES, 2001, p. 35-36). To the author, our schools are constructed according to the model of the assembly lines.

In view of such understandings, we feel a certain emptiness on facing a learning tin which the world of open possibilities is not explored, *sought* by students, in themselves, remaining only the performance of unconscious, lifeless gestures.

The UFPe-UFSM Pedagogic Work Group (1991) therefore directs toward problems as the means in which the students will be led to *seek* solutions, on doing so, so to speak, consciously. We will see in Heidegger (apud RÉE, 2000) that “Every question is a search” (RÉE, 2000, p. 13). Therefore, when a student is asked a question, he or she will *seek* the answer in himself or herself, the problems being an alternative possibility to learning based on defined goals. This interpretation is close to that of Hildebrandt & Laging (1986), according to which “All forms of *learning by discovery and solution of problems* seem adequate to make the learning process subjective” (p. 25).

The UFPe-UFSM Pedagogic Work Group (1991) cites examples of classes based on this learning concept. In these, the problems are placed as tasks to be fulfilled by the students. For example: “How can we leap with poles?” (p. 69); “How to move in the water without sinking in it?” (UFPe-UFSM PEDAGOGIC WORK GROUP, 1991, p. 95). Thus, Open Learning does not involve “leaving one free”, having planning and objectives, the problems being a possibility to form the range with which the educator will direct the class³.

We note that this opening to various possibilities occurs in two planes: that of social interactions and that of the world of movement of the students. In Hildebrandt-Stramann (2003), we will see that the opening in the plane of social interactions occurs due to think of the class as a process in which the teacher and students define their action situations and, consequently, their meanings. In the scope of the world of movement of students, the opening comes from open understanding of movement of this concept of learning. According to the author, Physical Education “[...] has the task of enabling a very wide range of diversified movement experiences” (HILDEBRANDT-STRAMANN, 2003, p. 33). Thus, instead of adopting the standardized sports gesture as reference to evaluate movement as “correct” or

³ In view of the possible preconceptions that have emerged regarding this concept of learning, it is not needless to state that Jost (apud HILDEBRANDT; LAGING, 1986) believes that even in situations of open learning, directive measures and structural prescriptions may be required. They cite as example the emergence of conflicts through problems that the students cannot solve.

not, it allows ‘moving oneself’⁴, in which there is a subjective search of the form of movement.

In this same wise, of diversity, seeking variety of nutrients that supply our work, we found other authors who think of learning in convergent fashion. We will see that Freire (1987) instructs for the adoption of problem-based education, understanding that it is through such learning that there is liberation, social/cultural problems being the means in which the commitment will occur.

Directing ourselves once again to the field of Physical Education, Kunz (2004) cites problems as a possibility for “knowing oneself”. According to the author, this should be promoted, whenever possible, so as to allow:

[...] freedom of acting and discovering forms of individually significant movement; knowing and interpreting the objective context in which the activities are performed, as well as oneself and the others involved in the activities suggested and presented; finally, to develop the ability for autonomy or emancipation through the activities, always accepting different solutions for each activity suggested (KUNZ, 2004, p. 34).

However, in Gottlieb (1999), we will see that it was Socrates who was characterized by use of the method of inquiry. We learn that the Greek philosopher was one of those who considered the inner world as the place where knowledge is located. Therefore, through inquiries, he brought the thoughts of others to light (maieutic). As stated by Gottlieb: “Instead of proposing a thesis, Socrates himself lets the other person do so and then withdraws its consequences from it” (GOTTLIEB, 1999, p. 13). He would extricate the explanations of others, playing the game of dialectics. This way, he denied transmitting any knowledge, considering that he only took it from the other person much like a midwife.

According to Gottlieb (1999, p. 14), despite this denial having an ironic base, it also had a more serious purpose: “Even though he always stated that he had nothing to teach, his activities were very similar to those who do teach”. The Greek philosopher had already understood: teaching does not mean giving answers.

4 OPEN POSSIBILITIES FOR COMMUNICATION-BASED LEARNING

⁴ ‘Moving oneself’ is an anthropological concept of human movement, through which there is dialogue between man and the world. It is about discovering the world of motor meanings, such that there is in the subject an expansion and deepening of this world (TAMBOER, 1979).

Here we will try to, from the understandings constructed from problem-based learning, understand the pedagogical possibilities, open gaps, through which this open learning orientation has been established in NEI Judite Fernandes de Lima.

In the classes observed, we identified scenes that evidence three sides of problems: 1) the challenge; 2) inquiry; and 3) the task. Thus, systematically, we highlight the scenes that characterize these aspects, opening the gaps for problem-based learning.

4.1 PROBLEMS AS CHALLENGE

During the classes, we observed the teacher proposing challenges to the students like: balancing on foot on top of the mattress pulled by the colleagues; in the catch game, escaping without touching the mattresses spread out through the yard; exploring the swing in different forms; walking on the edge of the sidewalk without falling; exploring the hula hoops of different shapes; and crossing the yard without touching the rolls that were thrown perpendicularly.

Hildebrandt & Laging (1986, p. 22) cite: “The contents of Physical Education must have a *stimulating and applied nature*, do justice to the area of subjective need of the students”. In this wise, on citing problems as challenge, it is understood that its identification occurs through the function of provoking, stimulating the students to focus on a certain problem. For this, the teacher must understand the interests of the students, making an accurate reading of their inner state. This is because the problems proposed by the teacher are directed to people who, superficially or in depth, interpret what is directed at them. We can say that the children, especially, due to having an undivided attention, do not assume every and any challenge proposed to them.

We only clarify that to consider the interests of the students means to start from their knowledge. Which does not mean to stay, remain. As cited by Freire (1992), starting has the sense of beginning the path, moving, going from one point to the other. This because, on the contrary, the classes would lose their pedagogical character.

We also highlight scenes in which the unfolding of these challenges appear, when understood in a perspective of movement that enables students to dialogue with the world. Starting from this perspective, on creating problems, the intention is for the students to seek the solutions by themselves. Being that in this “moving oneself”, there is no single, predetermined form of meeting the challenges. Thus, this conception causes the production of a rich diversity of movements, consciously, in Physical Education classes. We noticed this

unfolding in the following scenes: the students swung themselves in different forms – sitting, standing, supported below the arm, holding through the hands, dragging the feet on the ground, with the knees supported gaining speed, with the legs open, supported by the tummy, upside down, with one leg up, gaining speed, climbing the hill and pushed by the colleagues; the children with the hula hoops explore different paths - they rotate them on their waists and necks, try to turn them in three people inside the arc, throw them up and hold one in each hand, turning in their own axes, releasing them after reaching a certain angular speed.

Returning to literature, we found indications that base the creation of learning situations that encourage this diversity of creation of movements. The Physical Education Extended Study Group (1996), in the elaboration of the Curricular Guidelines for Child Physical Education, understanding the possibilities of using objects, orients:

Another question one must consider on including objects in the pedagogic activities is the quality of movements they can promote [...] One must think of objects that promote small movements and objects that require movement of the entire body; those that can be fully involved through the hand, but also those that completely involve a child or several of them; objects that provide different experiences, like being free in the air, upside down, sliding or hanging. (PHYSICAL EDUCATION EXTENDED STUDY GROUP, 1996, p. 56).

Therefore, the authors believe it is necessary for the teacher to organize a greater number of possible situations, since it is through movement that small children, especially, understand the world.

4.2 PROBLEMS WITH INQUIRY

Focusing on the classes, we clearly noticed the teacher's tendency to opt for inquiry, instead of pouring out of answers. This way, he has the possibility of better understanding the students, observing and interpreting them. On reaching them, he begins to understand the direction in which they are heading, thus having the possibility of, with the due directions, take on his role of educator. The children, in turn, with the inquiries, take part actively in the class. On seeking answers, also by internal references, they begin to take part in the class consciously, that is, they begin to understand what they are doing.

Observing the classes, we noticed several moments in which the teacher uses inquiry. We highlighted here a pedagogically interesting scene that occurred in one of the classes. After all had gone to the swing, the teacher called the group to sit down and talk. One student said "I want to go again". The teacher asked "Why do you want to go again?" The student

answered: “Because we like it”. The teacher: “Why do you like it?” The students: “Because it is cool”. The teacher insists “Why is it cool?” The students answer: “Because it is”. The teacher: “Why ‘because it is’?”. These dialogues, with the teacher unraveling the answers of the students through questions, cause the children to place the attention on themselves, since it is in them that they seek the solutions, and not in the copy of answers/movements without meaning. Therefore, the students get closer and closer to understanding themselves - their thinking, feeling and acting, which propels and is propelled by conscience. Note also that, like almost everything to children, and in the case to the teacher also, this dialogue became a game.

4.3 PROBLEMS AS TASK

To understand this possibility for problem-based learning, we began by clarifying our understanding of "task" when we use the expression. We use the term “task” to mean “work we must perform”. This way, seeking to characterize problems as tasks, our intention is to emphasize the “serious” nature, to be “respected”, with which they should be understood. Contrary to what common sense can lead one to think, in “open classes”, the teacher is not expected to minister the class saying things like: “This is the problem to be solved, but do it only if you wish”. Or: “Today’s class will be according to what interests you, so everything goes”. We do not wish to say that students should be obliged to perform tasks imposed, as close as possible to the way in which they were pre-elaborated by the teacher. On the contrary, as we have said, the teacher must be *open* to re-elaboration of the class together with the students. Our intention is to clarify that, in this reconstitution, the interests of the students should not be disregarded, but the changes to be implemented cannot be based simply on their disposition/willingness. It must be based on solid arguments that substantiate this new path as the one most suitable to attain the class's objectives. In other words, if the teacher, instead of being *open*, positions himself in front of the class in an indolent, negligent manner, the gap to achieve this possibility will be closed.

In this wise, using the terms of Freire (1987), in the classes observed, we perceived learning situations in which, without making confusions with authoritarianism, the teacher's authority is imposed when necessary. We cited as example two scenes that occurred in the class. In the first, during the game the “puller”, when a student positioned himself or herself to be pulled, student G. would throw himself or herself on the mattress. The teacher reprimanded him saying that he had given a good idea before - referring to the initiative of putting more

mattresses on the toy, but that now he was disturbing. In a second scene, the students alternate themselves on the swing, each one in a different way. In some instances, the teacher challenges “Is there no other way of swinging?” Thus several forms emerge. However, despite opening to this variety of movements, when the teacher notices children climbing the trees, the teacher reprimanded them because there were "stumps" on the floor that could hurt if they fell.

5 FINAL CONSIDERATIONS

First, going in-depth technically, we extricated the pedagogical legitimacy of problem-based learning. Thus, focusing on this learning, we interpreted it as a possibility for development of classes that also enable construction of knowledge, not being limited to mere transmission.

Immediately after our work, during interpretations of the classes, we perceived the field of observation as a fertile, rich place, where relevant pedagogical possibilities for the conduction of "open classes" originated. Therefore, for problem-based teaching, we opened three sides of this type of learning as possibilities: the challenge, the inquiry and the task.

This way, despite the fact that Concept of “Open Classes” in the Brazilian school reality has still not been executed, and in view of the incredulity of rigid thinking that see transformation of the school day-to-day as something impossible, the possibilities learned, gaps opened, in contrary manner, show us that their attainment is possible. Going further, we cited our understanding that not only is it possible to realize this concept of learning, we also believe in the existence of infinite possibilities, to be opened, besides those identified herein.

Therefore, because we did not intend to exhaust the possibilities for its concretization herein, also because it involves openings originated from the interpretation of a limited number of classes, in a single institution, we oriented the teachers/researchers not to limit themselves to the gaps opened in this survey.

Finally, we highlight that our work focused on the problem of concretizing a *concept of learning*, in the execution of a way of thinking about learning. This way, exactly because it involves an issue about the materialization of a vision, we cited that the concretization of the Concept of “Classes Open to Experiences” in the school context could only start as of transformation of the educators themselves. That is, such changes occur only with their pre-disposition to know themselves. For if the educators are not *open* to this “new” pedagogical legitimating of Physical Education, there will be no gaps through which one can transform the

school day-to-day. It being primordial to realize that it is the teacher on himself or herself who will make this opening, for co-decision in the configuration of classes, and not the 'other' in the 'other'. While the teacher does not perceive this, still remaining closed, the more effort he or she makes to transform the school day-to-day, the more he or she will be distanced from the legitimization opened in this work, since learning will be closed the more. It therefore being not only difficult but impossible to hold classes open to experiences” in this way.

Possibilities for the education guided in the inquiry: for the accomplishment of the conception of "open lessons to the experiences"

Abstract: The conception "Opened" in Teaching of the Physical Education pertaining to school Brazilian has pointed so that if it has guided the lessons in the inquiry (Pedagogical Work group UFPe-UFSM, 1991). This research had as objective to apprehend, in an experience of education in the Infantile Physical Education, pedagogical possibilities for the accomplishment of this orientation. The explorer-descriptive research was used as methodology. For the interpretation of the lessons the hermeneutics, the art to understand was used as method. Of the carried through work, three possibilities for the accomplishment of the education guided in the inquiry had been opened: the challenge, the inquiry and the task.

Keywords: Problem-Based Learning. School Physical Education. Child rearing

REFERENCES

ALVES, Rubem. **Filosofia da ciência:** introdução ao jogo e à suas regras. 7. ed. São Paulo: Loyola, 2003.

_____. Quero uma escola retrógrada. *In:* Alves, R. **A escola com que sempre sonhei sem imaginar que pudesse existir.** Campinas, SP: Papirus, 2001. p.33-8.

BERGSON, Henri. **Cartas, conferências e outros escritos.** Tradução Franklin Leopoldo e Silva e Nathanael Caxeiro. São Paulo: Abril Cultural, 1979.

BRACHT, Valter. A constituição das teorias pedagógicas da Educação Física. **Caderno Cedex, city,** v. 19, n. 48, p. 69-88, 1999.

BRAIDA, Celso. Aspectos semânticos da hermenêutica de Schleiermacher. *In:* REIS, R. R.; ROCHA, R. P. (Org.). **Filosofia hermenêutica.** Santa Maria: UFSM, 2000. p.23-28.

CARDOSO, Carlos Luiz. Emergência humana, dimensões da natureza e corporeidade: sobre as atuais condições espaço-temporais do 'se-movimentar'. **Revista Motrivivência, city,** v. 16, n. 22, p. 93-114, 2004.

_____. Para compreender o “tempo interior em aberto”: reflexões a partir de Schutz e Mead em direção à Educação Física e o esporte. **Revista Motrivivência, city,** v. 13 n. 18, p.151-164, 2002.

FREIRE, Paulo. **Pedagogia da Esperança: um reencontro com a pedagogia do oprimido**. Rio de Janeiro: Paz e Terra, 1992.

_____. **Pedagogia do Oprimido**. 17 ed. Rio de Janeiro: Paz e Terra, 1987.

GIL, Antônio Carlos. Como classificar as pesquisas? *In: Como elaborar projetos de pesquisa*. 3.ed. São Paulo: Atlas, 1996. p. 45-61.

GOTTLIEB, Anthony. **Sócrates: o mártir da filosofia**. Tradução Irley Fernandes Franco. São Paulo: UNESP, 1999.

GRUPO DE ESTUDOS AMPLIADO DE EDUCAÇÃO FÍSICA. **Diretrizes Curriculares para a Educação Física no Ensino Fundamental e na Educação Infantil da Rede Municipal de Florianópolis SC: registro da parceria NEPEF/UFSC-SME/Florianópolis, 1993 a 1996**. Florianópolis, 1996.

GRUPO DE TRABALHO PEDAGÓGICO UFPe-UFSM. **Visão didática da Educação Física: análises críticas e exemplos práticos de aulas**. Rio de Janeiro: Livro Técnico, 1991.

HAWKING, Stephen; MLODINOW, Leonard. **Uma nova história do tempo**. Tradução Vera de Paula Assis. Rio de Janeiro: Ediouro, 2005.

HILDEBRANDT-STRAMANN, Reiner. **Textos pedagógicos sobre o ensino da educação física**. 2 ed. Ijuí: Unijuí, 2003.

HILDEBRANDT, Reiner; LAGING, Ralf. **Concepções abertas no ensino da Educação Física**. Tradução Sonnhilde von der Heide. Rio de Janeiro: Livro Técnico, 1986.

KUNZ, Elenor. Pedagogia do Esporte, do Movimento Humano ou da Educação Física? *In: KUNZ, E.; TREBELS, A. H. (Org.). Educação Física crítico-emancipatória: com uma perspectiva da Pedagogia Alemã do esporte*. Ijuí: Unijuí, 2006. p. 11-22.

KUNZ, Elenor (Org.). **Didática da Educação Física**. 2. ed. Ijuí: Unijuí, 2004.

OLIVEIRA, Amauri Aparecido Bássoli. Mudanças metodológicas no cotidiano escolar: uma experiência com a metodologia do "ensino aberto" no ensino médio noturno. **Corpoconsciência**, city, n. 5, p. 65-79, 2000.

RÉE, Jonathan. **Heidegger**. História e verdade em *Ser e Tempo*. Tradução José Oscar de Almeida Marques e Karen Volobouef. São Paulo: UNESP, 2000.

TAMBOER, Jan. Se-movimentar: um diálogo entre o homem e o mundo. Tradução do Grupo de Trabalho Pedagógico UFSM/UFPE, durante o curso de mestrado em Educação Física na UFSM, no período 85-88. **Revista Pedagogia do Esporte**, Novo Hamburgo, v. 3 n. 2, p. 14-29, 1979.