67 - PROBLEM-SITUATIONS: SIGNIFICANT POSSIBILITIES FOR TEACHING/LEARNING IN SCHOLAR PHYSICAL EDUCATION

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Introduction

Several educators have researched and written on pedagogical practices based on their conception of World, Human Being, Society, Education and Learning. Some theories which address this subject have their origin or/and give preference to Psychological approaches, while others refer to the Sociological ones, but regardless of that we can notice that the current theories converge on the understanding about the diversity of students, as well as the necessity of providing education to reach autonomy.

These are the two principles the human differences and the objective of autonomy by educational means which regulate the pedagogical practices, which will be addressed in this text.

Regarding the Physical Education classes in formal teaching, researches have shown how ineffective the performance of many teachers still is. In many cases, the classes are restrained to the practice of sports, with standard rules and techniques, in which the teachers conduct the students' actions, thus exempting themselves of the responsibility of coordinating their classes in a way that enables a diversified and significant motor experience to everyone. This system of teaching does not provide significant learning, once it does not offer challenges for the students to discover and create their own motor answers, as of the potential of each one.

The participative pedagogical practices were searched through bibliographical research, and they demonstrated, as a presupposition, that people will be able to demonstrate their potential when they solve problems, in a diversified and autonomous way, hence we believe that Physical education classes based on problem-situation will be able to contribute to the stimulation of these potentials. Based on these indications we considered accomplishing a research in school day after day, aiming to verify whether the pedagogical practices developed produced problem-situations in the 5th grades Physical Education classes of Public Schools of a municipality of Paraná State, and whether the teachers' interventions contributed to significant teaching/learning process.

Problem-situations for Significant Pedagogical practice in Scholastic Physical Education

Macedo et al. (2000) allies the teaching/learning by problem-situations proposal to games. The authors believe that "[...] the action of playing demands, for example, accomplishing interpretations, classifying and operating information, aspects which are closely tight to the demands related to educational situations" (p. 14).

There has been observed by the authors that in the practice of games the process of knowledge goes through basically four stages: exploration of the material and learning of rules; game practice and construction of strategies; solution of problem-situations and analysis of the implications of playing. However, they point out that the teacher's observation is very important at the game time, according to them, "[...] if there is control of the situation, it is worth introducing new challenges to increase the level of difficulty" (p.21).

Some characteristics of the problem-situations:

"They are elaborated significant moments of the game itself; they present an obstacle, that is, they represent some situation of impasse or decision on which the best action to be carried through is; they favor the higher and higher control of the game structure; they have as main objective the promotion of analysis and questioning on the action of playing, making the luck factor and the plays by rehearsal and error less relevant" (MACEDO et al., 2000, p. 21).

Although the authors point out the importance of the games, they recognize that it is basic to consider that the development and the learning are not in the games themselves, but in what is triggered *from the interventions and from the challenges presented to the students*. The addition of both of them, the practice of the games mixed with problem-situation, can result in important exchange of information among the participants, contributing effectively for the acquisition of knowledge.

When Mosston (1978) writes about teaching in Physical education, he relates pedagogical strategies totally commanded by teacher until the *resolution of problems* solved autonomously by the students.

Canfield (1986), based on Mosston's styles of education, elaborated a spectrum of these styles, which are: *command, practice, reciprocal, self-control and inclusion*, in which the cognitive operations are limited to remembering, and in relation to the acquired knowledge, they only promote the reproduction of this knowledge, while the styles *directed discovery and solution of problems* produce the discovery and production of new knowledge and the cognitive operations identify themselves with: comparing, contrasting, categorizing, hypothesizing, synthesizing, surpassing, inventing, solving problems.

Mosston (1978) understands that the mental activity is the capacity of the intellect to: investigate, compare, take conclusions based on comparisons, make decisions, use distinct strategies to face a problem, invent, discover and reflect. He points out the education styles that precede the guided discovery in *spectrum*, as those that offer a very limited intellectual activity, and that in these styles these capacities are inhibited, they remain at a standstill due to disuse and absence of challenges, therefore they only appeal to the functions as memory, which are, in most cases, passive and disconnected.

The difference between guided discovery and solution of problems and the other teaching styles is that in the latter the teacher creates problems without giving the students the answer. In the problem-situation teaching it is expected that the student finds the answers by him/herself, according to his/her total will. The student does not take part in previous decisions of class in this style; the teacher is the one making the decisions. When it comes to executing there is an active participation of the student. A simple problem handled by this method of teaching may have, many times, several solutions. In fact, many problems are drawn in order to evoke multiple solutions.

All problems and questions in all learning areas have more than one correct response; the physical responses are not an exception. The fact of the variety of human movement alone must encourage teachers and students to seek for the alternative, the new, the different: the unknown! (MOSSTON, 1978, p. 194).

The author still adds that teaching by consensus just restricts the possibilities of new discoveries, new ideas in sport and new ways to execute movement. He reminds us of the importance of the problems being relevant to the subject, the group and the individual

To Nista-Piccolo (2001) Scholastic Physical Education must always be based on a playful perspective, taking care of the interests and potentialities of the students. The author also writes that it is necessary to respect the individuality and *to be surrounded by problem-situations*.

Based on what has been exposed it's possible to conclude that, amongst the teaching styles, the solution of problems is the most adequate to the pedagogical practice, since it favors the child's thinking, questioning and defying.

Gallardo; Oliveira and Aravena (1998) write that nevertheless the official documents indicate new trends, the mechanical exercising; the disrespect towards diversity and the individual abilities; and the exclusive concern with the final performance of the students continue to prevail in day-by-day of many schools. They consider that the teacher's duty is to contribute to the student's cultural repertoire and to create conditions for a better autonomy in relation to the approached knowledge. The student's autonomy is something to be searched throughout the teaching process. The scholastic Physical Education, according to these authors, has the same goals as any other subject in the curriculum, that is, to enable the developing of the human potential. They also suggest that the pedagogical intervention must be done through problem-based actions, that is, "teach how to fish, rather than to supply fish". They add that the immediatist attitude hinders the child's chance to think, to search his/her reply. The role of the teacher in this methodological option is the one of an articulator, a negotiator, an organizer, an agglutinant, that is, a mediator.

Some isolated attempts of change in the education of the Physical Education can be observed in countless examples found in bibliographies of the area and in research carried through in the school routine. In order to verify how the pedagogical practice of the Public Schools of our region is, a field research was carried through, which we now start to expound.

The methodological procedures in the field research

Through a field research with qualitative approach, an analysis of Physical Education classes ministered to the 5th grades of Public Schools of a city in Paraná State was carried through, in order to verify if the developed activities had propitiated problem-situations and if the interventions of the professors had been adjusted to provide a significant learning.

The systematic observation technique was used, followed by description, reduction and interpretation of the collected information. Four groups of different Schools participated in the research, and seven classes of each group had been observed, totalizing twenty-eight classes along a school semester.

It is important to elucidate some of the characteristics of teaching based on problem-situations, before presenting the results: the teacher must propose problem-situations and stimulate the student to act in order to solve them; the teacher will never provide the answer; the teacher must create challenges, using interrogative sentences. From these characteristics, and based on the literature review, three categories of analysis for the attended classes had been identified:

·Activities which did not present problem-situations: those in which the students accomplished very basic motor abilities, like running, passing and receiving a ball, unmoving ; and basic stretching exercises, which were made by imitation.

·Activities that naturally present problem-situations: in this category, the activities naturally offered problem-situations, for being characterized as dynamic activities. For example, the games, in which many unexpected and challenging situations happened, enabling diverse motor answers and that require fast decisions

·Activities which presented problem-situations elaborated by the teachers: those in which the teachers, in a planned way, created or added elements to the activity that then became new problem-situations to be solved by the students.

The results

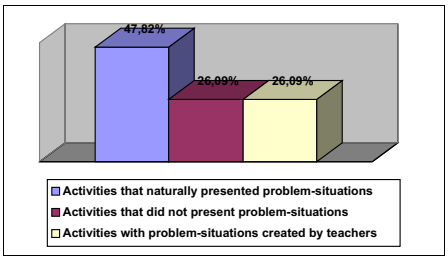
There were 17 activities developed in 28 classes, some were repeated, totalizing 64 activities in the classes attended. The sports modality futsal had the highest frequency (13 times) of them, followed by games of play chasing (nine times), dodge ball (eight times) and by the educative games systemized for sports and the giant and adapted game of volleyball, that were carried out seven times. The other activities varied between the frequencies of one to three times.

TABLE I The activities

ACTIVITIES	T.01	T.02	T.03	T.04	TOTAL
01- Play chasing	02	04	--	03	09
02- Free running on the court	01	01	--	–	02
03- Who is missing	01	–	--	–	01
04- Stretching	–	–	--	03	03
05- Hot potato	01	–	--	–	01
06- Simon says or dead-alive	01	01	--	–	02
07- Table tennis	–	–	--	02	02
08- Educative systematized for sports (volleyball, basketball and futsal).	01	03	01	02	07
09- Dodgeball	05	–	03	–	08
10- Giant volleyball/over	02	04	--	–	06
11- Adapted volleyball	01	–	--	–	01
12- Baseball to volleyball	–	01	--	–	01
13- Adapted Handball	–	01	02	–	03
14- Enumerated/adapted Basketball	–	01	02	–	03
15- Footgolf	–	–	--	01	01
16- Playing dumb with the foot	–	–	--	01	01
17- Futsal	03	01	02	07	13
TOTAL	**18**	**18**	**09**	**16**	**64**

In relation to problem-situations, the results had pointed the following data, as it can be visualized below in the chart: 26.09% of the activities did not present problem-situations; 47% of the activities naturally presented problem-situations; and 26.09% of the activities presented problem-situations created by the teachers.

CHART I: Demonstrative of problem-situations' frequency



On the intervention of the professors, the field research showed us that the classes, since the beginning, were given according to the determination and explanation of the activities by the teachers, not providing an opening for students to give

suggestions. They merely determined the activities and its rules, in an imposing way. When determining the activities in all the classes, without consulting the students, the teachers close the possibility of new problems coming up, as well as the chance to express the differences and to encourage the autonomy. Hildebrandt and Laging (1986), when suggesting open teaching, in the which students and teachers participate in the decisions about the objectives, contents and organization, try to stimulate the autonomy, the creativity and the cooperation of the learners.

According to the chart bellow, there were 13 different situations of teachers' intervention in the attended classes, which were repeated for several times. Among these situations there was predominance (21 times) of non-interference by the teacher. It means that although the teachers had determined the activity they did not play a role during them, they just watched.

One of the interventions made, which repeated itself for 17 times, was the determination, explanation and demand of rules by the teachers, with no participation of the students in the decisions. The teachers also determined 14 times that the student ought to do the activity, although for 8 it was clear that the teacher did not determine a pattern for the students' movement, and did not demand performance (four times). They refereed the game in 13 occasions and in 11 opportunities it was possible to observe the teachers stimulating the students' participation in the activities. The concern with discipline, suggestion about ways of performing the movement and the participation of the teacher with the students in the activities was observed in five different situations. The teachers demonstrated, corrected and assisted the carrying out of the technical gesture in four occasions, and they talked to the students about the best way of executing the activity for three times.

TEACHER'S INTERVENTIONS	Fi
A) Does not interfere.	21
B) Stimulates participation.	11
C) Determines what each student must do.	14
D) Participates in the activity with the students.	05
E) Demonstrates, corrects and assists in the execution of the technique.	04
F) Determines, explains and demands the rules.	17
G) Referees the game.	13
H) Talks to the students about the best ways of carrying out the activities.	03
I) Asks for collaboration and organization so that all can participate.	07
J) Does not determine the standard movement.	08
K) Does not demand performance.	04
L) Looks after discipline.	05
M) Suggests ways of making the movement.	05
TOTAL	**117**

Final Considerations

The pedagogical counseling cited in this text demonstrated several points, which call for active participation of both educators and students, so that there is a significant learning. The pedagogical practices must stimulate the search for autonomy; intellectual mobility; creativity; personal invention; communication and criticizing capacity; cultural opening; discovery and production of new knowledge from own experience; cooperation and affirmation of values. For that to happen recommendation regarding the teaching procedure is that they must be diversified and mainly permeated by problem-situations, starting from the students' previous knowledge and creating new challenges whenever the prior ones have been overcome and learned. In order to do that the teacher must have sensitiveness to intervene (or mediate) at the proper time.

Although the activities chosen by the teachers have enabled the presence of some problem-situations, they repeated themselves innumerable times during the analyzed classes, and in few opportunities there was an intervention by the teachers to adequate or alter the activity, preventing new challenges from being created. In that sense, it is possible that the activities have become simple routine to some students or repetition exercises, without motivation of cognitive resources. The problem-situations have, many times, been short or beyond the possibilities of some students, that is, for some of them the activity was so easy that it didn't produce any challenge, while for others, it was so difficult that it did not arise any interest, and again there was no proper intervention. In the problem-situations, according to Macedo et al. (2000), if the control of the situation exists, it is worth introducing new challenges to increase the level of difficulty. Learning and developing, for these authors, are not in the game, but in what comes from the intervention and from the challenges proposed by the teacher to the students.

The teachers' intervention, as they elaborate new situations from variations in activities which had already been developed, therefore already known by the students, or from a new game, although not present in many classes, demonstrated to be productive in instigating new challenges. This situation demonstrated how important the mediator role of the teacher is, who must be aware of the proper space and time for his/her intervention.

The interventions, as in problem-situations elaborated by the teachers as in those that were naturally present at the games, most of the time had a directive nature, determining *what* the student should do; the rules and its demand during the game was arbitrated by the teacher him/herself. On the other hand, the non-intervention, the non-directivity, as well as the non-determination of standardized movements and the non-demand of performance, which happened in several situations, or even the fact there being few situations in which the teachers demonstrated, corrected and assisted the carrying out of technical movements, giving the students freedom of choice of *how* to solve the situations demanded in the activities. This freedom, however, was limited by the inflexibility of the rules established, by the reduced number of opportunities, by the control of the situation by some students ("the more apt"), difficulty by others ("the inapt") and by the reduced number of new challenges.

Only one of the teachers who participated in the research interfered in the activity with the goal of questioning the students about the best way to solve problems, giving them the chance to reflect and search for their own answers.

It could be concluded that although the activities were surrounded by problem-situations, they were, at many times, not enough to stimulate new learning but only reinforced what many students already knew. It was then apparent that beyond promoting problem-situations, the quality of the teachers' interference is extremely important.

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PROBLEM SITUATIONS: SIGNIFICANT POSSIBILITIES TO THE TEACHING/LEARNING IN SCHOOL PHYSICAL EDUCATION

Abstract:
This study had as its aim to search pedagogical approaches with significant contributions to the School Physical Education. The presented proposals were suited in the autonomy principles and diversity respect. In this perspective, the teaching through problem-situations was characterized as profitable to attend the presuppositions. Through a field research, with a qualitative approach, it was made an analysis, inside the public schools, to verify whether the pedagogical practices developed propitiated problem-situations in the Physical Education classes. It was reached a conclusion that, although the performed activities had benefited the problem-situations presence, the teachers' intervention was not totally appropriated to reach the objectives.
Key-Words: School Physical Education, Pedagogical Practices, problem-situations.

SITUAÇÕES-PROBLEMA : POSSIBILITÉS SIGNIFICATIVES POUR ENSINO/APPRENTISSAGE DANS L'ÉDUCATION PHYSIQUE SCOLAIRE

Résumé
Cette étude il a eu objectif analyser les abordages pédagogiques avec des contributions significatives pour l'Éducation Physique Scolaire. Les propositions présentées nous ont été réglées principes d'autonomie et de respect à la diversité. Dans cette perspective, l'enseignement par situações-problema s'est caractérisé mange profícuo pour faire attention ces présuppositions. À travers une recherche de champ, avec abordage qualitatif, s'est faite une analyse, à l'intérieur des écoles publiques, pour vérifier si les pratiques pédagogiques développées ont rendu propice situações-problema dans les leçons d'Éducation Physique. Il s'est arrivé à la conclusion dont, bien que les activités réalisées aient favorisé la présence de situações-problema, l'intervention des enseignants totalement n'a pas été appropriée pour s'atteindre les objectifs.
Palavras-Chave : Éducation Physique Scolaire, Pratiques Pédagogiques, situações-problema.

SITUACIONES-PROBLEMA: POSIBILIDADES SIGNIFICATIVAS PARA LA ENSEÑANZA/APRENDIZAJE EN LA EDUCACIÓN FÍSICA ESCOLAR

Resumo
Este estudio tuvo como objetivo buscar abordajes pedagógicos con contribuciones significativas a la Educación Física Escolar. Las propuestas presentadas fueron pautadas en los principios de autonomía y respeto por la diversidad. Desde ese punto de vista, la enseñanza, a través de situaciones-problema, se ha caracterizado como ventajoso para atender estos presupuestos. A través de una investigación de campo, con abordaje cualitativo, se hizo un análisis, en el interior de las escuelas públicas, con la finalidad de verificarse si las prácticas pedagógicas desarrolladas propiciaron situaciones-problema en las clases de Educación Física. Se llegó a la conclusión de que, aunque las actividades realizadas hayan favorecido la presencia de situaciones-problema, la intervención de los profesores no fue totalmente adecuada para que se atingieran los objetivos.
Palabras-Clave: Educación Física Escolar, Prácticas Pedagógicas, situaciones-problema

SITUAÇÕES-PROBLEMA: POSSIBILIDADES SIGNIFICATIVAS PARA O ENSINO/APRENDIZAGEM NA EDUCAÇÃO FÍSICA ESCOLAR

Resumo
Este estudo teve por objetivo buscar abordagens pedagógicas com contribuições significativas para a Educação Física Escolar. As propostas apresentadas foram pautadas nos princípios de autonomia e respeito à diversidade. Nessa perspectiva, o ensino por situações-problema caracterizou-se como profícuo para atender estes pressupostos. Através de uma pesquisa de campo, com abordagem qualitativa, fez-se uma análise, no interior das escolas públicas, para verificar se as práticas pedagógicas desenvolvidas propiciaram situações-problema nas aulas de Educação Física. Chegou-se à conclusão de que, embora as atividades realizadas tenham favorecido a presença de situações-problema, a intervenção dos professores não foi totalmente adequada para se atingir os objetivos.
Palavras-Chave: Educação Física Escolar, Práticas Pedagógicas, situações-problema.