42 - THE INFORMATION AND COMUNICATION TECNOLOGIES IN THE SCHOOL: POSSIBILITIES FOR THE PHYSICAL EDUCATION

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1 INICIAL CONSIDERATION

The central discussion of this article refers to the use of information and communication technologies (ICTs) by county schools of Florianopolis (SC), and their relationship to the pedagogic praxis of physical education. The objectives included: a) to present a real diagnosis of the use of computer classrooms by the schools; b) to analyze the implementation process of computer classrooms; c) to verify how ICTs influence the process teaching-learning; d) to identify pedagogic proposals involving ICTs; and) to identify possibilities for the use of ICTs for Physical Education.

Current scientific and technological advances have generated a complex scenario in both school education and in professional formation. It is the school responsibility organizing and rearranging the enormous amount of information provided by ICTs, as well as to restructure its curricula and physical spaces to face new demands. The teacher's role in this new technological reality is to work as a team and to promote interdisciplinary actions. Teacher's role as an individual is been substituted by a collective figure, that should learn and conduct his/her students. In that sense, the media-education appears as a strategy to overcome the instrumental use of ICTs resources for educational processes.

Nowadays, the media-education includes three important dimensions: 1) the instrumental dimension, which assists technical issues of the technological tools; 2) the critical dimension, that proposes discussions concerning advantages and disadvantages of applied ICTs in different spheres of the human life; 3) the productive dimension, when technology is used as an instrument to develop and to improve knowledge of a given domain. That is, when it develops the mind, the sense of being beyond reproduction, capable of generating knowledge elaborate on particular subject (BELLONI, 2005).

Because of the technological scenario in education, one can emphasize the existence of a few authors (i.e. Betti, 1998; Correa and Moro, 2005; Hatje, 2000; Pires, 2002; and Zilberberg, 2007), as well as research groups (i.e. the Observatory of Sporting Media - UFSC, the Laboratory of Communication, Movement and Media in Physical Education -UFSM) that are studying the presence and the implications of ICTs in different contexts (sports, education, leisure, or health).

Studies of school physical education such as those of Mendes (2007) and Betti (2006) demonstrated concerns with P.E. teachers and the use of ICTs. Those studies indicated the need for training workshops and pedagogic interventions in the school to improve the relationship of those professionals with ICTs, as well as to include P.E. into the digital reality.

Proposals of digital inclusion (like "TV Escola" and "Midias na Educação") helped the Brazilian Ministry of Education and Culture to transform in reality the use of computers in most of the Brazilian public schools. In Florianopolis, elementary and middle schools, the Espaço Multimidia Infantil (EMI), and the Nucleo Centro de Educação de Jovens e Adultos are already equipped with computer classrooms as early as 1997 (i.e. Escola Anísio Teixeira, Escola Acácio Garibaldi São Thiago, and Escola Beatriz de Souza Brito).

This study can be characterized as exploratory through the approach with the research object and description of the reality. Data collection was executed by: a) Survey of information from documents, reports, and the existence of computer classrooms provided by the general office of education for Florianópolis County; b) Interview with the coordinators of computer classrooms; and c) Analysis of the results and notes. Florianopolis County was divided in five sectors (north, south, east, center and continent) for sampling. In each sector, two schools were chosen for visitation, based on the number of students, and time of operation of the computer classroom. Consequently, nine elementary schools and a Elementary Education Division were selected.

2 STRUCTURE AND ORGANIZATION OF EDUCATIONAL TECHNOLOGICAL DIVISIONS AND SMART CLASSES

Presently, the Educational Technological Division supervises and coordinates the work of media-education in twenty five county schools and three mixed schools: day care (Kinder garden), and a Youth and Adult Education Division. In each educational unit there exists a teacher-coordinator that organizes the work, offering technical and pedagogic support to teachers.

In 2007, twelve schools received new computers and 2 additional computer classrooms are being built. In general, a computer classroom is equipped with 15 computers, 1 server, 2 printers, 1 scanner, 1 CD burner, 1 digital camera, 1 VHS player, 2 air conditioners, intra and internet. That configuration can vary according to schools, and the number of students. The EMI is equipped with 8 computers, 1 printer, 1 scanner, 1 CD burner, intra and internet, educational software, 1 TV set, 1 VHS player, and 1 digital camera.

According to information gathered at interviews, computer classrooms are used in conjunction with other classrooms. The weekly schedule is organized accordingly to teachers' activities by grade. In addition, night classes in schools attended by youths and adults use the space for research. Computer rooms are being configured for Linux software. However, because of a lack of training courses it has cause problems and some resistance by both teachers and students. New strategies are being elaborated to motivate and stimulate the use of the room, demystifying myths of the free software.

It was noticed that there exist concern in motivating teachers' continuous formation for the creative use of the technologies. To reach that aim, teachers are offered courses, workshops and events in order to prepare them for pedagogic use of ICTs. However, the study observed that participants in such training are coordinators or teachers with affinity to computer. Consequently, to facilitate access to courses by all teachers is an alternative to minimize problems related to professional formation and to enlarge work with the technologies.

It was also observed in some schools that spaces were "improvised" to receive the equipments; in other words, rooms were relatively small with a reduced number of computers, often with a computer being shared by three or four students. The infrastructure problems demonstrate that not only technological equipments are needed but also a learning atmosphere.

The SI surveyed is in the transition phase of the Windows operating system for the Linux operating system that operates through free software. This has caused problems for some schools, since the operation of the new program requires new training courses and teaching specific proposals.

As interview with a teacher who is the coordinator of SI two years ago at a school located in the northern region of Florianopolis, this change is occurring, gradually, because it has some resistance from teachers and students. In light of this change, new strategies were developed to encourage and stimulate use of the room, clearing some myths that surround free software, explaining to teachers what can be developed from this new configuration. It can be noticed that there is a concern of NTE to encourage continuous training of teachers for creative use of technology. To achieve that goal, there are courses offered regularly, workshops and events for educators to teach them awareness and prepare for pedagogical use of ICTs. However, the study found that teachers who participate in training courses run by NTE are, in most cases, coordinators of SI or those teachers who have more affinity with this specific area. What ultimately restricts other teachers is the preparation, acquire skills and feel them encouraged to propose strategies for teaching-learning through ICTs. Thus, ease of access for all teachers to the courses signals an alternative to minimize the problems

related to vocational training and expand the work with the technology in school. Moreover, it was observed that physical spaces in some schools were "improvised" to get the SI, which means that the rooms are relatively small and have a limited number of computers, since the number of students, creating some difficulty serve them and often a computer is divided into three or even four students.

The problems of infrastructure shows that, in addition to ensuring technological machinery and equipment, there should be a look out to technologies of learning environments that requires planned and organized to meet the interests and needs of students and teachers. These places need to be increasingly characterized as areas for expansion and improvement of learning.

3 SMART CLASSES IN THE LEARNIG PROCESS OF TEACHING: FEW PEGAGOGY PROPOSALS AND POSSIBILITIES

Diante das profundas transformações nos campos políticos, socioeconômico, cultural, educacional e tecnológico e do aparecimento de modernas ICTs, a escola está sendo confrontada com novos desafios que intimidam seus responsáveis a revisar formas de atuação, realizar mudanças nas formas de proceder e na criação de metodologias que ultrapassem a mera reprodução dos conteúdos. Este argumento pôde ser constatado durante a pesquisa, através do relato da coordenadora de SI de uma escola localizada na região central da cidade, há um ano nesta função. Segundo ela, a presença das ICTs não mudam, necessariamente, a relação pedagógica. Isso dependerá muito da atitude do professor, a quem é cobrada uma mudança de postura frente aos novos recursos. Para ela,

Due to political, socioeconomic, cultural, education and technological transformations, the school is being confronted with new challenges with the creation of methodologies that surpass reproduction of the contents. This argument could be verified according to the testimony of a coordinators' report:

ICTs do not substitute a teacher, but modify his/her functions; it is his/her duty to stimulate students' curiosity. It is very important that the teacher acknowledge this technology, discovering its possibilities, favoring rethinking of his/her own action of teaching. To implement the educational role of computer science does not simply mean to introduce the computer and education software in the school. The software should be used in a context and inserted in projects, seeking the student's integral development, the multiple intelligences and the creativity. (Interview 1, 2007)

The present study indicates that Physical Education is away from the use of ICTs. However, popularization of P.E. through radio, television, newspaper, magazines and internet has increased. The increase in the number of cable television signatures related to packages of sporting programs indicates P.E. is dynamic, interactive and modern outside schools walls. However, P.E. contents repeat itself year after year with few modifications in the forms of teaching. The innovations are always because the acquisition of a new ball or a new coat of painting. It is suggested that by including ICTs, P.E. classes would connect itself with students' language and frequency in such way that it would stimulate students' curiosity for the subject. In such condition, discussions and reflections would result to approach teaching to reality.

The students demonstrated interest in P.E. information provided by different medias. However, few pedagogic approaches were observed involving P.E. and ICTs. One observed approach was the use of resources such as photographic camera and boom box in the classes disconnected of an interdisciplinary proposal or the objective of educating medias. In this particular episode, the teacher had difficulties in relating students' preferences for P.E. classes and the space that it occupies in the media.

Recognition of the importance of educating using ICTs was recognized by the school community; ICTs represent rich and inexhaustible sources of information. However, in general interviewees mentioned their difficulties in planning activities with P.E. teachers because of their resistance and distance from ICTs.

The results of this research shows that lack of time to explore ICTs resources, as well as deficient training in ICTs are the main reasons for that resistance. It was evidenced that P.E. teachers rarely participate in continuous formation courses promoted by NTE, which widens the gap between those teachers and ICTs. If a teacher is not qualified for thinking of other ways for developing his/her class, he/she does not find ways or modes of action for the educational subject. Many teachers question how P.E. can interact with ICTs if his/her place is in the school multi sport court and lessons should involve corporal movements. This is the focus of this research.

The task of inserting ICTs in pedagogic practice of P.E. is not easy. However, it is not also impossible and some guidelines were identified in this research. One of them is to plan pedagogic interventions thinking in how to involve P.E. contents using other materials (such as the technological ones), other spaces, and new methodologies. The important is to analyze each particular case, with students' participation in the process, and to test different strategies. This way, and through continuous adjustments ("try and error ") possibilities will appear in those new learning atmospheres.

In other areas of knowledge it is possible to identify that the reality found in the ICTs is formed by outdated programs and pedagogic proposals little attractive to students. On the other hand, LAN houses attract children, youths and adults with modern software in the form of games (individual or collective) that explore learning processes and fall in the public's taste. It is fundamental to review pedagogic strategies developed by ICTs to avoid the students' indifference and discrepancy among classes of different subjects.

The research doesn't indicate, directly, that computer classrooms should adapt to the LAN house system, but to adopt a more realistic and innovative atmosphere of the subject. This statement is similar to Lévy (1998, apud MARQUES, 2006) to whom it is essential to adopt a new pedagogic style, that favors at the same time the personalized and the cooperative learning. In that sense, ICTs would not be spaces dedicated solely to digitization of texts, games and researches, but a complement of subjects worked at classroom and according to the teachers' request.

This research indicated a lack of innovative and creative proposals as one of the difficulties for materialization of the media-education. This aspect is linked to the lack of an inclusive and specialized professional formation that subsidies teachers' planning and development of educational actions using a diversify of technological tools.

4 FINAL CONSIDERATIONS

This research tried to identify and to analyze the reality of the schools at Florianópolis (SC) for the use of ICTs and its relationship with the teachers' pedagogic practice. The results revealed the existence of deficiencies and gaps on teachers' formation, as well as potential advantages of that new education model.

The study showed that the process of implantation of ICTs is slow and gradual, from 1996 from a partnership between the city and Ministry of Educação/PROINFO. It also showed that the process requires not only infrastructure but also qualified professionals. Some alternatives were mentioned by interviewees to stimulate insertion of the technologies into the teaching-learning process. However, the day after day struggle to overcome lack of materials, appropriate room space, support and maintenance of the equipments are severe. Several teachers make an effort to learn and to teach at computer rooms with precarious accommodations and under bad technical conditions.

The principal findings of this research are: 1) mystification on the use of ICTs; 2) lack of courses of technical and pedagogic training for P.E. teachers; 3) absence of school interdisciplinary proposals involving P.E.. There exists a belief that through resolving those drawbacks a transformation of P.E. may happen, and that “teacher” becomes to be understood as a collective figure.

Additionally, findings of this research indicated a need for amplification and improvement of ICTs role in school to improve quality of P.E. learning.

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THE INFORMATION AND COMUNICATION TECNOLOGIES IN THE SCHOOL: POSSIBILITIES FOR THE PHYSICAL EDUCATION

ABSTRACT

This paper occur the use of technologies of information and communication (ICTs) in class of informatics in schools municipals of Florianópolis, SC, Brasil. The research identifies the relation of ICTs with the process of teaching-knowledge questioning the practice pedagogic of teachers, especially of Physical Education. The design of exploratory study found some answers by analyzing documents, in interviews with coordinators of technological class and significant bibliography revision. The study found that the discipline of Physical Education, although of changes provokes for ICTs in Education, is limited the same methodologies outdates. Found out many aspects that contributes to this situation, for example: lack of capacity from teachers and the need of interdisciplinary proposal, especially which the use the technologies such as pedagogical instrument. This study offers a contribution to the quality of Physical Education in schools. KEY-WORDS: Physical Education, Class of Informatics, ICTs.

LES TECHNOLOGIES D´ INFORMATION ET DE COMMUNICATION À L´ ÉCOLE: POSSIBILITÉS POUR L´ÉDUCATION PHYSIQUE.

RESUMÉ

Cet article aborde le thème de l´utilisation des Technologies d´Information et de Communication des salles informatisées des écoles du Réseau Municipal d´Éducation de Florianópolis-SC. Il parle de son rapport avec le processus de l´enseignement-apprentissage tout en questionnant la pratique pédagogique des professeurs, spécialement de l´ Éducation Physique. Le travail d´ étude à caractère exploratoire est allé cherher les réponses par le biais de l´analyse de documents , d´entrevues en partie structurées avec les coordénateurs des salles informatisées et d´une révision de la bibliographie pertinente. Le travail d´étude a fait constaté que la discipline d´Éducation Physique, malgré les changements provoqués par les TICs dans l´éducation, se trouve limitée par les méthodologies défasées. Plusieurs facteurs qui contribuent au fait que cela arrive ont été identifiés ; entre eux: le manque de capacité adéquate des professeurs et la carence de propositions interdisciplinaires, principalement celles qui utilisent les technologies comme recours pédagogiques et méthodologiques. L ´article, basé sur ces études, offre la possibilité d´améliorer la qualité de l´ Éducation Physique dans les écoles. MOTS CLES: Éducation Physique, Salles Informatisées, TICs.

LAS TECNOLOGÍAS DE LA INFORMACIÓN Y COMUNICACIÓN EN LA ESCUELA POSIBILIDADES PARA LA EDUCACIÓN.

RESUMEN

Este articulo aborda el uso de las tecnologías de la información y comunicación (TICs) en las clases informatizadas de las escuelas de la Red Municipal de de Enseñanza Florianópolis. Habla de su relación con el proceso enseñanza aprendizaje cuestionando la práctica pedagógica de los profesores, de modo especial, de la Educación Física. El estudio de carácter exploratorio busco las respuestas, por medio de la análisis documental, de entrevistas semi-estructuradas con los coordinadores de las clases informatizadas y de una revisión en la bibliografía pertinente. El estudio constató que la disciplina de Educación Física, a pesar de los cambios provocados por las TICs en la enseñanza, se encuentra limitada a las mismas tecnologías traspasadas. Fueron identificados varios factores que contribuyen para que eso ocurra. Entre ellos: la falta de capacitación adecuada de los profesores y la carencia de propuestas inter disciplinares principalmente las que utilizan las tecnologías como recursos pedagógico-metodológicos. El articulo, con base en estos estudios, ofrece una contribución a la mejora de la calidad de la Educación Física en las escuelas. PALABRAS-CLAVES: Educación Física, Salas Informatizadas, TICs.

AS TECNOLOGIAS DE INFORMAÇÃO E COMUNICAÇÃO NA ESCOLA: POSSIBILIDADES PARA A EDUCAÇÃO FÍSICA

RESUMO

Este artigo aborda o uso das Tecnologias de Informação e Comunicação (TICs) nas salas informatizadas das escolas da Rede Municipal de Educação de Florianópolis-SC. Trata de sua relação com o processo de ensino-aprendizagem questionando a prática pedagógica dos professores, de modo especial, de Educação Física. O estudo de caráter exploratório buscou as respostas, através da análise documental, de entrevistas semi-estruturadas com coordenadores de salas informatizadas e de uma revisão na bibliografia pertinente. O estudo constatou que a disciplina de Educação Física, apesar das mudanças provocadas pela TICs na educação, encontra-se limitada as mesmas metodologias defasadas. Foram identificados vários fatores que contribuem para que isso ocorra, entre eles: à falta de capacitação adequada dos professores e a carência de propostas interdisciplinares principalmente as que utilizam as tecnologias como recursos pedagógico-metodológicos. O artigo, com base nesses estudos, oferece uma contribuição à