

**76 - TECHNOLOGIES AND THEIR USE BY PHYSICAL EDUCATION TEACHERS IN RIO DE JANEIRO**

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**Abstract**

This article presents the results of a study with teachers of physical education in the city of Rio de Janeiro, exploring from an online questionnaire the technological resources adopted by these teachers in their classes in elementary school. One of the objectives of this study was to investigate the use of digital media by teachers of physical education, especially video game, which constitutes a valuable pedagogical tool to be used in the educational process. We collected 160 questionnaires and the results indicated that 61.9% of the teachers used a stereo, 59% used datashow, 49.6% used computers, 40.3% television and DVD, 25.2% smartphones, 23.7% camera Of photography / filming and 13.7% overhead projector. We highlight that 5% used the video game, which reveals the presence of new digital technologies also in public schools.

**Keywords:** Information and Communication Technology; Exergames; Physical Education.

**Introduction**

Kenski (2010, p.18) the definition of technology is: "the set of scientific knowledge and principles that apply to planning in a particular type of activity". So, technology is in the most common things of our daily life, but little is perceived as something so simple and obvious. As an example, when using our food, we use cutlery, a fruit of technology, because these items were designed and built thanks to "the special ability to deal with each type of technology, to perform or to do something, which is called technique".

In the contemporary era, technology is more noticeable thanks to the scientific advances of mankind. In this scenario, considering the educational context, digital media has been emerging as a new communication tool, enabling an amplification of the teaching-learning process (BARACHO; GRIPP; LIMA, 2012).

This expansion according to Sena (2011, p. 2) is done through the use of Information and Communication Technology (ICT) in schools, serving as an option of use and support by teachers, because "through new media and technologies, Access to pedagogical contents, increasing the forms of relation of the students with the information, reconfiguring the school space ". In this way, it is fundamental to know that ICTs are present in the contemporary world and their reach is worldwide.

For some educators, electronic games become a negative option for the educational process, as well as doing harm to vision, many students are disinterested in studies. In the view of other educators, games come as an option to stimulate more the student's cognitive part, since there are games that require high perception and strategy, thus developing intelligence (RODRIGUES JUNIOR; SALES, 2012).

In considering the strength of the discussions about new technologies that are still latent today, the objective of this research was to identify, through an online questionnaire, which technologies used by the physical education teachers of the Municipal Department of Education of Rio de Janeiro (MDE-RJ) use in class.

**Methodological Approach**

We conducted a quantitative research, whose main data collection instrument was an online questionnaire answered by 160 physical education teachers from the SME-RJ of the 3rd, 4th, 10th and 11th Regional Coordinators of Education (RCE). From these questionnaires, we selected 139 complete for analysis. The study was authorized by SME-RJ, and submitted to the Research Ethics Committee of UNIGRANRIO.

**Results and Discussion**

The Table 1 presents the technological equipment that teachers use in physical education classes. It is emphasized that the teacher could indicate more than one item.

Table 1. Apparatus that SME-RJ physical education teachers usually use in classes

Resource	Percentage of Responses	Count responses
Overhead projector	13,7%	19
Projector (DataShow)	59,0%	82
Computer	49,6%	69
Stereo	61,9%	86
TV	40,3%	56
Video tape	3,6%	5
DVD	40,3%	56
Blueway	1,4%	2
Video game	5,0%	7
Smartphones	25,2%	35
Photography / Film Camera	23,7%	33
<i>Answered the question</i>		139
<i>Question ignored by respondent</i>		21

Table 1 shows that 61.9% said they use sound equipment, 59% use datashow in class, 49.6% use computers, 40.3% use television and DVD in class, 25.2% use Smartphones, 23.7% use photo / video camera, 13.7% use overhead projector.

Besides these, 5% said that they use the video game, these data induce the reflection that the presence of the digital technologies in the schools has made possible the use of new didactic tools for the teaching, that is, electronic games (exergames). In addition, it is corroborated by previous studies when discussing that games constitute a further support for teaching (WEBER; SANTOS; CRUZ, 2014). It should be noted that exergames are electronic games that associate body movements with gestures performed by the player (VAGHETTI; MOTARO; BOTELHO, 2011; RODRIGUES JUNIOR; SALES, 2012; BARACHO; GRIPP; LIMA, 2012).

According to Vaghetti, Mustaro and Botelho (2011), some universities and schools already think of putting exergames in their curricula as a possibility, since these games are not only beneficial to health, but also perform activities of varying intensity according to each game. They also explore motor skills during their practice.

However, it is indispensable that the teacher advises students about the inappropriate / exaggerated use that can cause health risks (BARACHO, GRIPP, LIMA, 2012), in effect, to cause dependence, besides "damages in the social, professional, Family and professional" (VAGHETTI; MUSTARO; BOTELHO, 2011, p.119).

In this direction, modern electronic games are increasingly part of everyday school children and adolescents, demanding more body movements, besides having an excellent graphic quality, different from the old games that were restricted to the use of buttons, levers and Images of low quality (JUNIOR; SALES, 2012).

It is noticed that it is necessary to think of new strategies when referring to the pedagogical process, since the electronic media is part of the daily life of the young people and brings to the physical education classes elements that guide the culture of the students, being able to contribute to improvements in the processes Educational and learning, and collaborate to form a participatory and critical citizen (RODRIGUES JUNIOR; SALES, 2012).

Therefore, considering the school context and relating the above results to the study of Baracho, Gripp and Lima (2012, p. 113) it is clear that the use of technology is presented as:

A potentializing feature of traditional classroom space. It can be used as a new form of student motivation, since it is endowed with high power of illustration and constitutes as an educational tool that offers different experiences.

In this way, the use of alternative methodologies in the classes, through the media and educational programs, appears with the intention of contributing and providing more dynamic and pleasant classes (AMORIM et al., 2012). It is also worth noting that media vehicles such as newspapers, television and the Internet have a great influence on young people (DINIZ; RODRIGUES; DARIDO, 2012).

Thus, according to Diniz, Rodrigues and Darido (2012, p.186) "school as a social institution is inserted in this context of intense development, where media are components that occupy a significant space in everyday life." Therefore, pedagogical management must adapt and not ignore the use of these resources in schools, since we live in a technological world (WEBER; SANTOS; CRUZ, 2014).

With the society living in this digital universe, many of the young people make constant use of technological resources in their daily lives, and with the technologies in the classrooms, there are possibilities of other forms of learning by the students, alternatives to the traditional ones, since many of these apparatuses present materials And pedagogical contents of quality, thus enriching and enhancing learning (WEBER; SANTOS; CRUZ, 2014).

### Conclusion

In order to identify, through an online questionnaire, which technologies the physical education teachers of the Municipal Department of Education of Rio de Janeiro (MDE-RJ) use in class, this article analyzed critically the technological resources of use Two teachers. In this sense, it was noticed that there is use of these devices by the teachers, however, there are limitations regarding the lack of professional preparation, limited conditions of the environment that does not provide adequate physical structure for the insertion of technologies in the pedagogical environment and cost-benefit for Equip the rooms with video game.

In view of the research carried out, it was possible to perceive that the DVD player, television, stereo, computer and projector are the technological resources most used by teachers. On the other hand, in less number of uses was cited the video game that, considering the studies present in the discussion of the article, constitutes a valuable pedagogical tool to be used in the educational process.

Thus, there is still much to investigate having the technological resources in the educational environment as object of study. In this research it is notable that the new technologies are part of the daily school life, although their use is limited due to professional training and environmental conditions.

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## TECHNOLOGIES AND THEIR USE BY PHYSICAL EDUCATION TEACHERS IN RIO DE JANEIRO

### Resume

This article presents the results of a study with teachers of physical education in the city of Rio de Janeiro, exploring from an online questionnaire the technological resources adopted by these teachers in their classes in elementary school. One of the objectives of this study was to investigate the use of digital media by teachers of physical education, especially video game, which constitutes a valuable pedagogical tool to be used in the educational process. We collected 160 questionnaires and the results indicated that 61.9% of the teachers used a stereo, 59% used datashow, 49.6% used computers, 40.3% television and DVD, 25.2% smartphones, 23.7% camera Of photography / filming and 13.7% overhead projector. We highlight that 5% used the video game, which reveals the presence of new digital technologies also in public schools.

Keywords: Information and Communication Technology; Exergames; Physical Education.

## TECHNOLOGIES ET LEUR UTILISATION DANS L'ENSEIGNEMENT ENSEIGNANTS PHYSIQUE AU RIO DE JANEIRO

### Résumé

Cet article présente les résultats d'une étude des professeurs d'éducation physique dans la ville de Rio de Janeiro, en explorant à partir d'un questionnaire en ligne, les ressources technologiques adoptées par ces enseignants dans leurs classes à l'école primaire. L'un des objectifs de cette étude était d'étudier l'utilisation des médias numériques par les enseignants d'éducation physique, et en particulier du jeu vidéo, qui est un outil pédagogique précieux destiné à être utilisé dans le processus éducatif. Nous avons recueilli 160 questionnaires et les résultats indiquent que 61,9% des enseignants utilisent stéréo, 59% montrent les données utilisées, 49,6% utilisent des ordinateurs, 40,3% TV et DVD, smartphones 25,2%, 23,7% caméra photographie / tournage et 13,7% de projeteur. Nous insistons sur le fait que 5% ont utilisé le jeu vidéo, ce qui révèle la présence de nouvelles technologies numériques aussi dans les écoles publiques.

Mots-clés: Information and Communication Technology; exergames; École d'éducation physique.

## TECNOLOGÍAS Y SU USO EN LA EDUCACIÓN LOS PROFESORES DE FÍSICA EN RÍO DE JANEIRO

### Resumen

Este artículo presenta los resultados de un estudio de los profesores de educación física en la ciudad de Río de Janeiro, la exploración de un cuestionario en línea, los recursos tecnológicos adoptados por estos maestros en sus clases en la escuela primaria. Uno de los objetivos de este estudio fue investigar el uso de los medios digitales por profesores de educación física, y, en particular, los videojuegos, que es una valiosa herramienta educativa para ser utilizado en el proceso educativo. Hemos recogido 160 cuestionarios y los resultados indicaron que el 61,9% de los profesores utiliza equipo de música, 59% muestran los datos utilizados, el 49,6% utiliza ordenadores, el 40,3% de TV y DVD, teléfonos inteligentes 25,2%, 23,7% de la cámara fotografía / filmación y el 13,7% por encima. Hacemos hincapié en que el 5% utiliza el juego de video, lo que revela la presencia de las nuevas tecnologías digitales también en las escuelas públicas.

Palabras clave: Tecnología de Información y Comunicación; exergames; Escuela de Educación Física.

## TECNOLOGIAS E SUA UTILIZAÇÃO POR PROFESSORES DE EDUCAÇÃO FÍSICA NO RIO DE JANEIRO

### Resumo

Este artigo apresenta os resultados de um estudo com docentes de educação física da cidade do Rio de Janeiro, explorando a partir de um questionário online, os recursos tecnológicos adotados por estes docentes em suas aulas no ensino fundamental. Um dos objetivos deste estudo foi investigar o uso das mídias digitais pelos professores de educação física, em especial o vídeo game, que constitui valiosa ferramenta pedagógica para ser utilizada no processo educacional. Coletamos 160 questionários e os resultados indicaram que 61,9% dos professores utilizavam aparelho de som, 59% usavam datashow, 49,6% utilizam computadores, 40,3% televisão e DVD, 25,2% smartphones, 23,7% câmera de fotografia/filmagem e 13,7% retroprojetor. Destacamos que 5% utilizavam o vídeo game, o que revela a presença de novas tecnologias digitais também nas escolas públicas.

Palavras-chave: Tecnologia da Informação e Comunicação; Exergames; Educação Física Escolar.