13 - SWIMMING IN PHYSICAL EDUCATION CLASSES: A CHANCE TO STRUCTURE WITHOUT PROPER METHODOLOGY

MACK LÉO PEDROSO
RICARDO ANDRE TREVISOL
Universidade Regional Integrada do Alto Uruguai e das Missões - URI,
Frederico Westphalen, Rio Grande do Sul, Brasil.
diretor@sapucaia.ifsul.edu.br

INTRODUCTION

The theme of this work describes swimming and its relationship with the school, proposing the use of this information as practical knowledge to be offered in Physical Education through their inclusion as content in the school curriculum, even if the school does not have a structure physically suitable for the practice of this sport and leisure, in case a pool.

This proposal is motivated by the increasing availability of swimming in the sports media and the media as a great choice of sports and recreation for people, which directly influences the health improvement of the same, as well as the fact that the practice this activity in several regions of the country is directly linked to our culture of body movement.

The reality observed in the region of the city of Fredericksburg - RS allows to record that part of the population carries this practice without a technical training base, with great effort and difficulty, while another part has fear of performing this activity, not knowing how to play thereof.

This observation justified to investigate the possibility of inclusion of swimming as one of the content being offered to students in Physical Education classes enabling access to knowledge of this practice. This explanation is supported by the fact that most schools do not include in their curricula information about swimming, due to the lack of a physical structure and specific materials that create opportunities for learning, which hinders and discourages professionals from the field of Physical Education to develop this activity with the students, leaving a gap in their educational training.

Given this situation and aware that swimming is a knowledge attributed to the area of Physical Education, became challenging to think that a school can offer this knowledge to their students, even if it has a specific structure for the practice of this activity, in the case, a swimming pool and its accessories.

This article presents the results of a research which proved that knowledge about swimming can be offered in physical education classes, through theoretical activities and exercises adapted, even without the existence of an adequate physical infrastructure, because they influence a student's performance to best carry out this activity in a suitable place, where swimming, while contributing in the cultural formation of the students.

The work was guided by literature research as a way to get the furthering of knowledge on the subject and then we used the descriptive quantitative research with exploratory objective, character pre-experimental method and application study, which examined the use of information about swimming in physical education classes in schools, through activities theoretical and practical exercises tailored, comparing the influence of these activities on student performance in performing the practice of swimming in an appropriate place.

The study had the audience eight (08) students of the ninth (9) year State School of Basic Education Vergínio Cerutti, the city of Fredericksburg - RS, which does not have swimming lessons as content and Physical Education or structure physically suitable for this practice. To survey and data collection used the footage of activities and observation forms the technical performance of students whose registration information has been made by direct observation of the researcher.

The analysis process was divided into four stages, with the first step (step pre-assessment) conducted a survey to check the condition of the initial performance of students in an environment suitable liquid (pool), the second step (step intervention) included the observation and recording of student performance in carrying out activities tailored theoretical and practical exercises, which were developed in physical education classes in school, checking the assimilation of information and movements proposed by students, the third step (step post intervention) included the observation and recording of student performance in the requests that were made in appropriate liquid environment, in this case, in a pool, and the final step (analysis stage) made a comparison of the results obtained in the first step with records made in the third step, setting the final reflections of the work.

LEARNING OF SWIMMING

Among the forms of physical activity recommended for health maintenance and performance body, swimming is status as one of the most important and is recommended for all individuals, regardless of age, gender, social class or levels of performance.

Despite this importance, implementation and practice of this activity requires the use of specific physical space for its development associated with full control of its fundamentals and knowledge of their forms of execution. With regard to physical space, it can be found in rivers, lakes or pools, in the case of a condition or geographic access possibilities of your practitioner. On the other hand, the domain of knowledge and ways of performing this activity is part of a process of learning which had its origin in the historical trajectory of the movement of man. (VIEIRA, 2006).

Currently, swimming has given convincing evidence to its practitioners that this is a great cardiovascular exercise and can improve heart and lung capacity, avoiding and preventing the risk of diseases related to the cardiorespiratory system as well, bringing benefits in developing muscles and joints of the human body. (ESTEVES, 2010).

Among the styles used for the practice of swimming, freestyle, also called swimming crawl, is the most used by those who have some knowledge of swimming and even for those who have not mastered the technique of crawl, the freestyle is what has the greatest similarity with the motion crawl by the beginners of this practice. (TARIPIAN, 2007).

These movements contribute to realize the performance of practitioners with respect to adapting to the liquid medium, body position in water, the form of respiration, movement of arm and leg movement and described below, based on clipping of the study some authors about swimming.

The adaptation to the water would be the first contact with the water where children, youth, adults and even the elderly go through phases of individual adaptation, which are conducted through recreational activities and techniques in the area of the water body, which motivate and introduce direct contact with the water, guiding on the body position in the water. (VIEIRA, 2006).

According Tarpinian (2007), the correct body position helps to decrease the resistance, being that it is a natural consequence of working on the other aspects of technical freestyle. Machado (2006, p. 16) contributes warning that: “The position of the body is affected by several variables, mainly related to body composition and location of the center of gravity,

factors determined by the physical characteristics of the individual."

Breathing is undoubtedly one of the most important techniques for all styles still births, vital to the adequacy of the swimmer with the liquid medium and one of the more difficult techniques for those who are new. From the moment in which this technique is improved and controlled, it becomes easy to perform, thus increasing the performance of a swimmer. (TARIPIAN, 2007).

The propulsion of the arms is one of the important swimming movements that involves coordinated effort with each of the upper stage of a cycle of strokes in order to obtain maximum efficiency in movement in the water, achieving greater speed. Therefore it should be the most potent, effective and coordinated possible. (MACHADO, 2006).

The propulsion of legs is a movement able to increase the performance of other techniques such as the phases of the propulsion of arm, thus adding strength to swim. In addition to increasing the performance and propulsion of swimming, the limbs also serves to balance the swimmer and therefore keeping the body horizontally, thus helping the swimmer in two more important techniques, which would be the rotation of the body and breath.

Tarpinian (2007) explains that the technique of the kick is very important in preparing the best drive to maximize strength, ensuring the pace, stability and good body position. The structure of the swimming movements of the leg has little mobility of the knee joint and a large extension of the ankle joint, and, depending on these movements, the power will depend on the swimming technique to be performed well for the proper angulation, rotation and position of the body and the application of force.

The record of technical aspects gives opportunity a more detailed analysis of each group of body movements used in freestyle, enabling the analysis of some specific gestures and movements performed, which contribute to support the development of training activities that can be offered in Physical Education classes schools, contributing to students' access to knowledge about swimming.

A PRACTICAL APPLICATION OF THEORETICAL KNOWLEDGE OF SWIMMING

The results of the study that guided this study were obtained from observations made on the performance of students in performing some of the basic movements of freestyle (crawl) in appropriate space (pool), free form and before the application of the lessons at school (stage of pre-assessment). These observations were recorded on a form pre - technical evaluation with reference to how students performed the movements of swimming, which the level of learning and how they do the motor gestures of some aspects of this type of stroke, which were filmed for a detailed analysis of the same.

Then, in step intervention were organized lesson plans containing the activities to be performed in the school during physical education classes without adequate physical infrastructure (swimming), using classes, mats, benches and basins, and other materials, the organization sought to offer students experience in the execution of motor movements related to freestyle and enable greater visibility of gestures and movements indicated, seeking to expand the repertoire engine optimizing these gestures and forms of execution of movements. These activities were also recorded, photographed and videotaped to enable more detailed analysis of student performance.

After the offer of information and experience in physical education classes, we performed post-intervention phase where again we observed the performance of students in appropriate liquid environment (swimming), free form, but with incentive to exercise freestyle. The observations were recorded in the form of technical evaluation and later, as the initial procedure, those records were accompanied by footage of the movements performed by the students, in order to enable detailed analysis of these and determine whether there was an improvement in the fundamental actions and some technical movements originated from students.

The records of the data allowed the construction of graphs generated from the records of observations and footage, which presents information on the performance of students in the pre-assessment and also information on the performance of students in the post-intervention. The comparison of the data obtained in this information enabled the authors to register their perceptions of the study.

By making the prior analysis of the relative movements of the body position in water, pre-evaluation, it was observed that most learners retained in the body as horizontal as possible at the water line (62.5%) and performed shoulder motion in the water surface (62.5%). However, most of the pupils in the face had no water, with the line height of the forehead (62.5 %). After application of the classes at school, in the post-intervention, it was observed that most learners retained in the body as horizontal as possible at the water line (75%) and it was found that all of them the movement performed shoulder on the water surface (100%). These observations also indicate post-intervention that most learners has to keep his face in the water, with line at the time of testing (75%) and virtually all (87.5%) of the students passed keep feet below the water surface.

Regarding the way to breathing in the pre -assessment, it was found that 50% of students could not pull air out of the water and drop it in the water and the same percentage failed to put the face below the line of water. It was also observed that 50% of students failed to perform trunk rotation to breathe by removing the face of the water. The technique of rotating the head to breathe, followed by the stroke was not performed for the majority of the sample (75%), and the technique of full exhalation air into the water was not carried out for 50% of the sample. The soft inhalation air and exhalation air in soft water were not carried out for 75% of the sample.

In post-intervention, after the application of the educational activities of breathing in physical education classes, it was found that 50% of students were successful to pull air out of the water and releasing the air into the water, performing mild inhaling air. In relation to the rotation of the trunk and head to breathe, removing the face of the water, accompanied by the stroke, the assimilation of technical gesture by the students, had a 87.5% success. It was also found that 75% of the face able to place below the water line leaving the height of the forehead as well as 62.5 % of the air expired into the water gently.

The movements of the upper limbs, analyzed in the first stage, records that only 50% of students were able to complete the extension of the shoulder and that 62.5% of students were able to keep the arm nearly extended the aerial phase of the movement. It was also found that only 37.5% succeeded in developing a smooth entry of the hand into the water. In the aspect propulsion under water, the movement forward and down was carried out by 75% of the students; flexion of the elbow and hand inward, upward and backward by 62.5%, and elbow extension out and back, had 75% of students. As for recovery, 62.5% of students showed the elbow as the first out of the water and 50% of students did not perform the movement of high position, and the same percentage the number of students who maintained a relaxed hand and elbow semi - flexed to complete the move.

After the intervention, ie, after the execution of movements in physical education classes, was seen a great evolution in this series of movements, especially at the entrance, where the extension of the shoulder had 100% success, and the arm nearly extended with the hand smooth entry into the water was a level of success of 75%. In relation to the arm forward and down and also in the extension of the elbow and back out was the percentage improvement in 75% of students. The elbow flexion with the hand inside, back up and was successful in 62.5% of the students. In relation to recovery, there was a breakthrough of 75% of

students who have achieved the movements of the elbow (the first out of the water), the high position relative to the relaxed hand and hand with semi-flexed elbow. A comparison of the development of gestures recorded in the first stage and the third stage (post-intervention) reveals a great evolution.

Comparing the performance of students before school and after school environment for performing these activities, it was observed that, on return to contact with water, there was a great improvement on the general technique of the students, with emphasis on the extension of the shoulder, where all performed the correct movement. It was also observed that in the pre-step evaluation, there was no pupil managed to accomplish the movements of elbow flexion forward and downward and inward movement of the hand upwards and backwards (that part of the propulsion under water). After school opportunized at school (intervention) in the post-intervention, the second contact with the water revealed that over 75% of students performed these movements. In this sense, it is clear that this improvement is due to the applied exercises in physical education classes, as they allowed a good visualization and correction of movements that were executed.

As the movement of the lower limbs, in the pre-assessment, knee flexion followed by rapid extension of the leg, was held by 50% of students, due to the fact they possess a good coordination of the lower limbs. In this movement, the feet in plantar flexion and slight internal rotation obtained 62.5% of achievement and feet tapping alternating up and down, got 75% of performance. This finding of positive results is due to the fact that students practice other sports activities gestures that enable them to drive and a good performance in the lower limbs.

After school classes, in post-intervention, it was found that the movements of knee flexion, followed by rapid extension of the leg, got 87% of achievement and movements of feet in plantar flexion, with slight internal rotation, and as the beat foot alternating upwards and downwards, there. 100% achievement of the students movements.

Regarding the coordination of movements initially had been noted that 50% of students could not perform the technique of inspiration at the end of the path propulsive upper limb, and that 50% of students took part in this movement. Similarly, 62.5% did not conduct the input of the face in water before hand. In the post-intervention, it was observed that 75% of students performed coordination partially where students started to play with improvements movements, mainly the input face in the water before hand, where 100% of students performed the movement.

CONCLUSION

The challenge of investigating the possibility of offering knowledge about swimming as content of physical education classes the final years of primary school, students from schools that do not have adequate physical infrastructure (pool) for this practice, reveals the pedagogical importance of the study that originated this article, as the instigator of new research on these possibilities.

The need to study authors who wrote works on the theme proposed possible to construct alternative teaching practices, which include a commitment to offer information and practical activities adapted to the teaching of swimming in physical education classes, which motivated the use of creativity in the construction of various educational activities for learning to swim, even without having the appropriate physical space for this practice.

This commitment has enabled dare a different proposal for this area, bringing to the school the opportunity to expand the culture of body movement of students through the insertion of swimming as a physical education curriculum content, seeking to fill one of the gaps in knowledge of human movement in Basic Education at the same time that professionals in this area to offer some thoughts on how this integration can be effected.

More specifically, the analyzes originated, show that there was a significant difference in student performance in relation to body position in the water, where they had an improvement in the horizontal position of the body, the shoulder movement, turning the trunk and the position of the face in the water.

Regarding the breath, it was realized that the difficulty is due to the limited contact of students with water and also by the lack of an appropriate place to practice. However, despite the difficulties presented, there was a significant learning of students when compared to the first stage (practice in the pool), proving to be viable teaching practice swimming in schools, even without the presence of a pool.

As for the upper limbs, there was a satisfactory result, as before the intervention through the lessons in the school environment, none of the students had done the right way the technique of movement and, after completion of school activities, the second contact with the water, in the post-intervention, it was found that 75% of students performed the movements more appropriate. With regard to the lower limbs, it was observed that, after the classes held at the school, the students performed correctly the basic movements.

Regarding the coordination of movements, it was noticed a significant contribution, since many of the students who failed to perform the movements properly in the first stage, could perform them in a coordinated and satisfactorily in the post-intervention.

Comparing the performance achieved by the students before and after access to the proposed activities in physical education classes, we found that most of the difficulties faced by students in performing the movements of this technique are due to three main factors: the little opportunity for contact with water the scarcity of suitable sites for learning and lack of guidance in promoting the sport, through information and knowledge.

Among these factors, this paper seeks to make a significant contribution to Physical Education, which deals with access to information and educational practices that allow the assimilation of knowledge to be desenvido this area, which is independent of the existing structural conditions, but yes the professional motivation for student access to the physical culture movement.

From the data presented, it can be concluded that some aspects of swimming can be taught in school, even if the school does not have adequate physical infrastructure (swimming), because the teacher can use other tools to teach the student (basins, classes, benches, mats), which are inexpensive and accessible to the whole school and serve as a benchmark for understanding the information available to students.

Experiments originated from work showed that through good planning and organization of structured lesson plans, you can enter the teaching of swimming in the school curriculum providing opportunities for the students' knowledge regarding the practice of physical activity and seeking to awaken the taste of students for this kind of sport, which is extremely beneficial to health.

The final thoughts of the work show that the knowledge of swimming can and should be offered in the physical education classes through theoretical and practical activities, even without the existence of a suitable structure, composing a content of knowledge about human movement in all their possibilities and dimensions, contributing to the education of the student.

REFERENCES

ANDRADE, Maria Daisy. Introduction to the methodology of scientific work: drafting work at graduation. 4.ed. Sao Paulo: Atlas, 1999.

CRESWELL, John W. Research design: qualitative methods, quantitative and mixed. 2.ed. Porto Alegre: Artmed, 2007.

ESTEVES, Leandro Monteiro Sammour Zein et al. Cardiovascular responses Post-Exercise Swimming. Rev. Bras. Med. Sport. Niterói, 16. n. 6. p. 418-421, December 2010.

MACHADO, David Camardo. Swimming: Introduction to Training. Sao Paulo: EPU, 2006.

SANTOS, Rogério dos. Hydro, 1000 exercises. 5th edition, Rio de Janeiro: SPRINT, 2008.

TARPINIAN, Steve. Swimming: an illustrated guide to improve techniques and training for swimmers of all levels. Sao Paulo: Gaia, 2007.

VIEIRA, SILVA. What is swimming. Rio de Janeiro: Home of the word: COB, 2006.

Rua Carlos Gomes, nº 590. Bairro Santo Inácio. Frederico Westphalen - RS. Brasil.
CEP 98.400-000 Telefone: (51)99183782. E-mail: diretor@sapucaia.ifsul.edu.br

SWIMMING IN PHYSICAL EDUCATION CLASSES: A CHANCE TO STRUCTURE WITHOUT PROPER METHODOLOGY

ABSTRACT

This research investigated the possibility of offering knowledge about swimming, as the content of the physical education classes the final years of primary school, students from schools that do not have adequate physical infrastructure (pool) for this practice, analyzing their performance, before and after the provision of these activities in the liquid medium (pool) outside the school environment. The theoretical approaches to learning to swim, showing a brief historical overview and some of the benefits of this practice, still discoursing on the main features of the freestyle (or crawl), emphasizing the adaptation to the water, your body position in the water, breathing, coordination and movement of the upper and lower thrust arm and leg propulsion. This research is characterized as quantitative descriptive and exploratory objective, character pre-experimental method and application study, and was conducted with eight students at the School Vergínio Cerutti in Frederico Westphalen, which do not have classes swimming as content of Physical Education. The research process was conducted in four stages: preliminary observation of student performance, implementation of lesson plans, further observation of student performance and comparison of results obtained in the first step with the records made in the second stage. The final thoughts indicated that swimming can be taught in a school environment, even if the school does not have adequate physical infrastructure (swimming), through the preparation of lesson plans and structured to enable the teaching of some aspects of swimming in space school, providing opportunities for students to access the knowledge of the sport of swimming and awakening the taste for the practice of this activity, which is beneficial to health.

KEYWORDS: Learning. Swimming. School.

NATATION DANS LES CLASSES D'ÉDUCATION PHYSIQUE: UNE POSSIBILITÉ MÉTHODOLOGIQUE SANS STRUCTURE APPROPRIÉE

RÉSUMÉ

Cette recherche a étudié la possibilité d'offrir des connaissances sur la natation, comme contenu des cours d'éducation physique des dernières années de l'école primaire, les élèves des écoles qui n'ont pas l'infrastructure physique adéquate (piscine) pour cette pratique, l'analyse de leur performance, avant et après la mise à disposition de ces activités dans le milieu liquide (piscine) dehors du milieu scolaire. Les approches théoriques de l'apprentissage de la natation exposant un bref aperçu historique et quelques-uns des avantages de cette pratique et les principales caractéristiques de la nage libre (ou crawl), mettant l'accent sur l'adaptation à l'eau , la position de votre du corps dans l'eau, la respiration, de la coordination et le mouvement des membres supérieures et inférieures et la propulsion de la jambe e du bras. Cette recherche se caractérise descriptive quantitative avec objectif exploratoire. C'est pré-expérimentale avec méthode d'étude applicatif, et a été réalisée avec huit étudiants de École Vergínio Cerutti à Frederico Westphalen. Ces elèves n'ont pas les classes de natation comme le contenu de l'éducation physique. Le processus de recherche a été menée en quatre étapes: observation préliminaire du développement des élèves, mise en œuvre de plans de leçon, observation posterieure du développement des élèves et comparaison des résultats obtenus dans la première étape avec les enregistrements effectués dans la deuxième étape. Les dernières pensées montrent que la natation peut être enseigné dans un environnement scolaire, même si l'école n'a pas l'infrastructure physique adéquate (natation), à travers l'élaboration de plans de leçon et structuré pour permettre l'enseignement de certains aspects de la natation dans l'espace école, en offrant des possibilités pour les étudiants d'accéder à la connaissance du sport de la natation et éveiller le goût pour la pratique de cette activité, ce qui est bénéfique pour la santé.

MOTS-CLÉS: L'apprentissage. Natation. École.

NATACIÓN EN LAS CLASES DE EDUCACIÓN FÍSICA: UNA POSIBILIDAD METODOLÓGICA SIN ESTRUCTURA ADECUADA

RESUMEN

Se investigó la posibilidad de ofrecer conocimientos sobre natación, ya que el contenido de las clases de educación física en los últimos años de la escuela primaria, los estudiantes de las escuelas que no cuentan con la infraestructura física adecuada – la pileta – de esta práctica, el análisis de su desempeño, antes y después de la prestación de estas actividades en el medio líquido, la pileta, fuera del entorno escolar. Los enfoques teóricos para aprender a nadar, muestran una breve reseña histórica y algunos de los beneficios de esta práctica, sigue discurriendo sobre las principales características del estilo libre, el crawl, haciendo la adaptación al agua, la posición del cuerpo en el agua, la respiración, la coordinación y el movimiento del brazo de empuje superior e inferior de la pierna y la propulsión. Esta pesquisa se caracteriza como cualitativa descriptiva, con el objetivo exploratorio, de carácter experimental cuantitativo descriptivo y con un método de estudio de aplicación. El proceso de la pesquisa se llevó al cabo con ocho alumnos de la Escuela Verginio Cerutti en la ciudad de Frederico Westphalen, al cual no hay clases de natación como contenidos de la Educación Física. El proceso de investigación fue realizado en cuatro etapas: observación preliminar del rendimiento de los estudiantes, implementación de planes de estudio, observación adicional del rendimiento de los estudiantes y la comparación de los resultados obtenidos en la primera etapa con los registros realizados en la segunda etapa. Las reflexiones finales indican que la natación puede ser enseñada en un ambiente escolar, aunque la escuela no cuente con la infraestructura física adecuada, cual sea, la pileta, a través de la elaboración de planes de estudio y

estructuración para permitir la enseñanza de algunos aspectos de la natación en el espacio escolar, proporciona oportunidades a los estudiantes para acceder al conocimiento del deporte de la natación y despierta el gusto por la práctica de esta actividad, que es beneficiosa para la salud.

PALABRAS-CLAVE: Aprendizaje. Natación. Escuela.

NATAÇÃO NAS AULAS DE EDUCAÇÃO FÍSICA: UMA POSSIBILIDADE METODOLÓGICA SEM ESTRUTURA ADEQUADA

RESUMO

Esta pesquisa investigou a possibilidade de se ofertar conhecimentos sobre a natação, como conteúdo das aulas de educação física dos anos finais do ensino fundamental, aos alunos das escolas que não possuem estrutura física adequada (piscina) para essa prática, analisando o desempenho dos mesmos, antes e após a oferta destas atividades no meio líquido (piscina) fora do espaço escolar. O referencial teórico aborda a aprendizagem da natação, mostrando um breve recorte histórico e alguns dos benefícios dessa prática, discorrendo ainda, sobre as principais características do nado livre (ou crawl), salientando a adaptação ao meio líquido, a posição do corpo na água, a respiração, a coordenação e a movimentação de membros superiores e inferiores propulsão de braço e a propulsão de perna. Este trabalho de pesquisa caracteriza-se como quantitativa descritiva, com objetivo exploratório, de caráter pré-experimental e método de estudo aplicativo, e foi realizado com oito alunos da Escola Vergínio Cerutti, em Frederico Westphalen, os quais não possuem aulas de natação como conteúdo de Educação Física. O processo da pesquisa foi realizado em quatro etapas: observação prévia do desempenho dos alunos, aplicação dos planos de aulas, observação posterior do desempenho dos alunos e comparação dos resultados obtidos na primeira etapa com os registros feitos na segunda etapa. As reflexões finais evidenciaram que a natação pode ser ensinada em ambiente escolar, mesmo que a escola não possua estrutura física adequada (piscina), através da elaboração de planos de aulas bem estruturados, que possibilitem o ensino de alguns aspectos da natação no espaço escolar, oportunizando ao aluno o acesso ao conhecimento da prática da natação e despertando o gosto pela prática deste tipo de atividade, que é benéfica à saúde.

PALAVRAS-CHAVE: Aprendizagem. Natação. Escola.