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METHODOLOGICAL AND ORGANIZATIONAL PROBLEMS IN TEACHING SWIMMING

Key words: swimming, class, problems, children.

ABSTRACT

The aim of the study was to identify the most common problems connected with preparation and performance of physical education classes at a swimming pool. The study was to examine whether P.E. teachers' age, sex, experience, extra skills (e.g. swimming instructor's qualifications) and pupils' age had any influence on organizational and methodological problems during a swimming lesson. The experiment was carried out with the aid of a survey of 69 physical education teachers from Gdańsk (37 women, 32 men, aged 24-56, mean age 37.9 years). They were all employed in public schools and carried out a one-hour swimming lesson per week. More than 50% of the teachers did not declare any problems with preparation for their swimming classes. The most common problem in conducting a swimming class was the choice of proper exercises to suit children's different skills (30% of answers). This problem essentially differentiated the teachers according to age ($p < 0.05$ in chi-square test). Young teachers (24-34 years) and middle-aged teachers (35-45 years) declared problems in conducting their swimming classes more often than older teachers (46-56 years). No other problems were correlated with teachers' age, sex, experience, extra qualifications and pupils' age.

INTRODUCTION

A great number of swimming pools has been built in Poland in recent years. This fact has encouraged local authorities and school headmasters to organize swimming lessons as part of the physical education curriculum at school. School children have been offered not only elementary swimming lessons, but also exercises in aquarobics, diving, lifesaving and water games. Pupils with a high level of swimming confidence started to attend optional classes where they could master their swimming skills under swimming instructors' supervision. Some schools have been organizing swimming meetings, where pupils from neighboring schools can compete at various swimming

distances. Certainly, the achieved results are still far from perfect, but taking part in such an event raises pupils' motivation and provides them with unforgettable memories.

Although the methods of teaching swimming do not differ much from these used in teaching gymnastics or sport games, the aquatic environment demands some special principles which are crucial in swimming classes.

The most important aspect of swimming classes is children's safety. The teacher has to plan the swimming lesson taking into account children's age, their confidence level, the quantity of swimming accessories (e.g. kick boards), pool space available (e.g. number of swimming lanes) and the pool depth. [1]. The teacher must be

situated in a place with a good view of the entire swimming pool and must be always ready to assist the learners [6]. Special care must be taken of non-swimmers [13]. According to Kamieniak, [7] the following rules must be strictly obeyed to avoid accidents at a swimming pool:

- no more than 15 pupils per one teacher,
- pupils classified into groups according to the level of their swimming confidence,
- gradual introduction of new tasks,
- close cooperation with the lifeguard.

Another problem causing inconvenience during a swimming class is communication between the teacher and pupils. In fact, a swimming child can often neither see the teacher, nor hear him. The hum of splashing water, the swimming cap stretched on the ears and other children passing by make the pupil almost totally ignorant of signals from the teacher. Because of that, the teacher should give his notices to children only during intervals between swims. Every new element of the swimming technique must be thoroughly explained and explicitly demonstrated. Some studies show that children who are aware of the aim of a new movement, learn it faster and better [12, 19, 20].

Clamor at the swimming pool is also strenuous for the teacher. People who work in noise for a long time feel tired and depressed, they are not able to think clearly and they get easily irritated. Research carried out by Ślężyński and Polechoński [16] shows that noise during swimming classes reaches the level of 75dB. This is a high value, since according to regulations, the noise level in the center of a city should not exceed 50dB, while 85dB is dangerous for man's health.

Another problem that may occur during a swimming class is learners' anxiety of water, which pertains not only to small children [4], but also to high-school adolescents [5]. The teacher's task is to distribute the exercises among anxious and non-anxious pupils to maintain a proper level of intensity of the lesson. It is not easy in practice because children may differ in their level of anxiety. Some of them may be afraid of exhalation in water, others of immersion. Attempts to conduct swimming exercises using psychological methods have been made to overcome pupils' hydrophobia [17], but these methods are unlikely to be well-known by teachers and swimming instructors.

The swimming pools might not be equipped with the adequate number of buoyancy aids and accessories. The most common buoyancy aids include kick boards and swimming noodles. If two

or more classes are held in the pool at the same time, the teachers have to decide how to distribute the available accessories among the pupils. Although some studies reveal that the use of too many aids may fail to enhance students' swimming skills [10], these accessories are very helpful in classes with non-swimmers.

Taking into consideration the above observations, it can be observed that some organizational and methodological problems seem to be common and specific to swimming classes. The following research hypotheses were formulated:

1. Classification of school children into groups (according to anxiety or skills criterion) and allocation of proper tasks to them is troublesome for swimming teachers.
2. Noise is a common disturbing factor during swimming classes; it makes the teacher tired and disturbs communication between him/her and the pupils.
3. Inadequate number of buoyancy accessories causes organizational problems in swimming classes.

Teachers' age, sex, experience, extra skills (e.g. swimming instructor's qualifications) and pupils' age were taken into account as factors which might contribute to organizational and methodical problems in a swimming class.

The study was also aimed to reveal the teachers' opinions about achievements of pupils attending swimming classes.

METHODS

The study used a questionnaire which was distributed among 69 physical education teachers from Gdańsk (37 women, 32 men, aged 24-56, mean age 37.9, standard deviation 9.47). They all were employed in public schools and taught a one-hour swimming class per week. The subjects' experience in swimming instruction varied from 1 to 28 years (mean 8.3, standard deviation 5.6). 26 women and 26 men were qualified swimming instructors.

The questionnaire sheets were given to the teachers after their class and collected the following week.

Statistical analysis (mean, standard deviation, chi-square test) was carried out using Excel 2000.

RESULTS

More than 50% of the surveyed teachers did not declare any problems with preparation for their swimming classes. Fewer than 15% of the teachers claimed that they had some problems with preparing exercises for pupils with different swimming skills. 10% complained about the insufficient number of accessories available at the swimming pool. A similar group (less than 10%) had problems with inventing attractive games and exercises for the lesson [Fig. 1] Teachers who were qualified swimming instructors declared problems with preparing swimming classes more often, than the teachers with no swimming instructor's qualifications ($p < 0.01$ in chi-square test).

had problems with the choice of proper exercises for pupils with different levels of swimming confidence. More than 15% teachers said that the lack of discipline and pupils' reluctance to perform exercises were the trouble-making factors. 15% of the teachers also said that they had problems in teaching a swimming lesson when there were too many pupils attending the class. Other problems mentioned by 15% of teachers included: noise at the pool, children's hydrophobia, and too deep water (for the beginners) [Fig. 2]. Young teachers (24-34 years) and middle-aged teachers (35-45 years) declared problems while conducting lessons more often than their older colleagues (46-56 years). The chi-square test revealed that these differences were statistically significant ($p < 0.05$

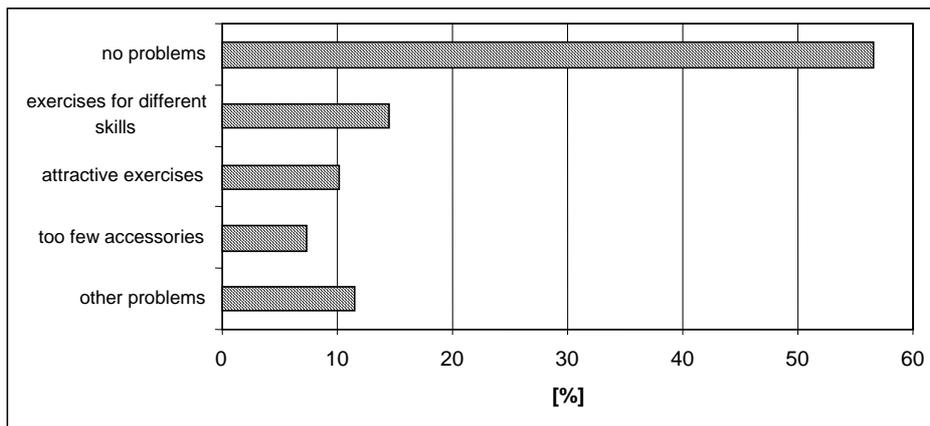


Figure 1. Problems in preparing swimming lesson according to the teachers (n=69)

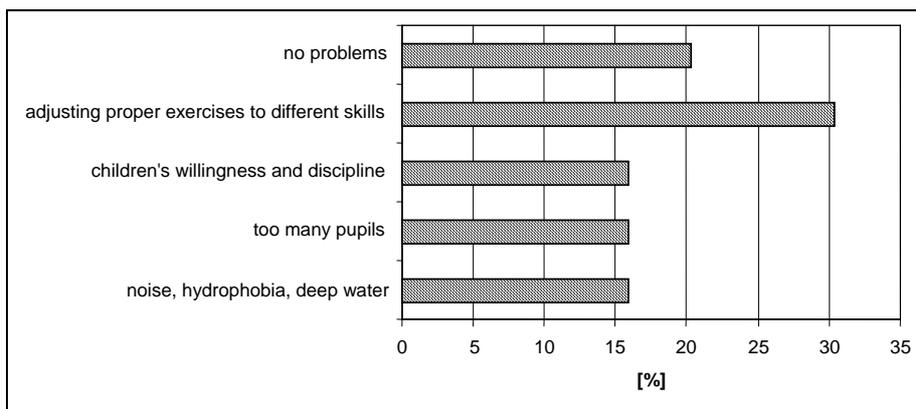


Figure 2. Problems in conducting swimming lessons according to the teachers (n=69)

The majority of the examined teachers experienced more problems while conducting swimming classes (18% of them declared no problems at all). Almost one-third of the subjects

and $p < 0.01$) [Fig. 3]. The problems while conducting a lesson were not correlated significantly with teachers' sex, experience, extra qualifications and pupils' age.

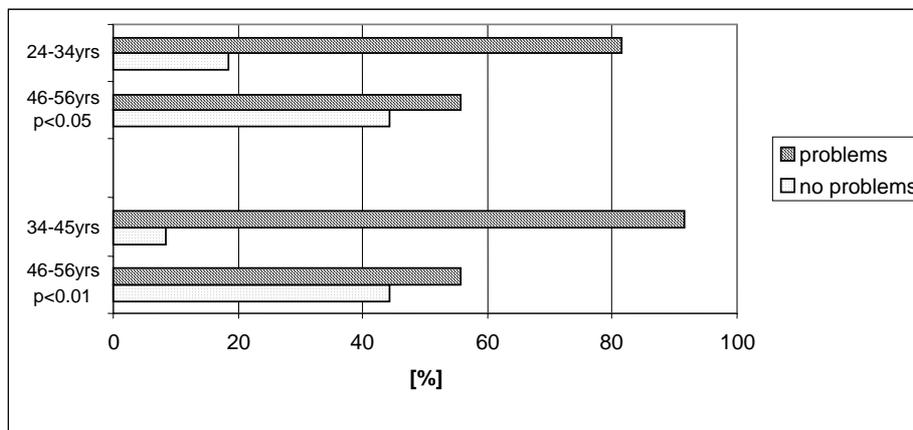


Figure 3. Problems in conducting swimming lessons according to teachers' age

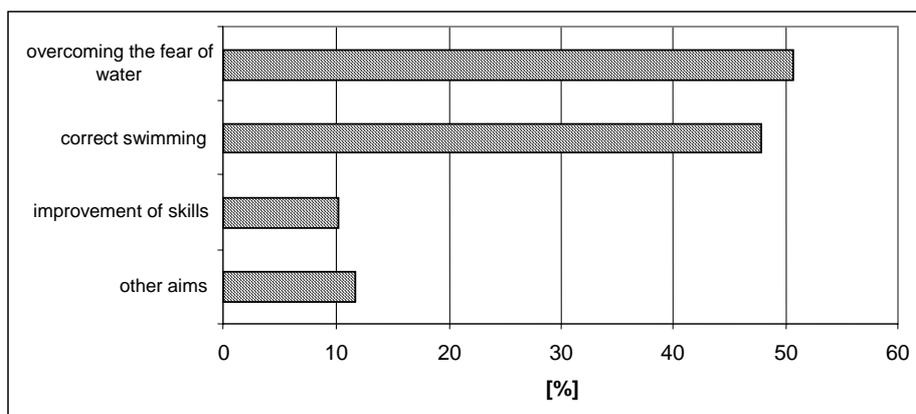


Figure 4. The most important achievements of pupils according to the teachers (n=69)

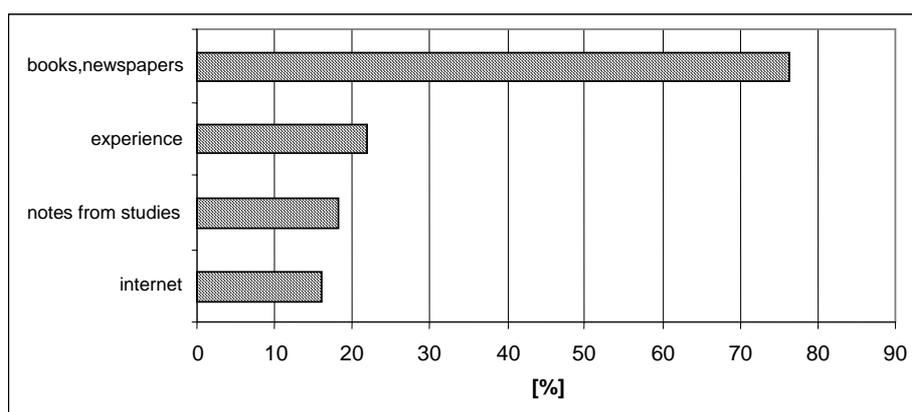


Figure 5. Sources of information helpful in preparing swimming lessons according to the teachers (n=69)

More than 50% of the examined teachers said that the most important achievement of pupils attending swimming classes was acquaintance with water and overcoming the fear of water. A similar number of subjects (47.82%) claimed that the main

aim of the lessons was to teach swimming in the correct way. Only a few teachers (10.14%) said that the lessons were successful, if pupils improved their swimming skills. Other answers, mainly given by teachers who held swimming classes in high

school, included winning a swimming competition and the ability to swim four strokes. [Fig. 4]. The answer to this question did not differentiate the teachers according to age, sex, experience and other factors.

Apart from the problems mentioned above, the majority of teachers (more than 72%) claimed that they followed the curriculum. According to them, failure to execute the planned tasks was caused by children's skipping their swimming classes.

The teachers were also asked about sources of information that might be helpful in preparing swimming classes. The majority of them (76.36%) mentioned books and newspapers. More than 20% relied on their own experience; 18.32% planned the lessons with the aid of their notes from college; and 15.94% searched for information on the Internet [Fig. 5].

DISCUSSION

The data presented above shows that the most common problem in preparing and conducting swimming lessons is the selection of proper exercises for children who vary much in their swimming skills. There were no significant correlations, measured with the chi-square test, between these problems and teachers' age, sex, experience and pupils' age. What is interesting, all the problems during conducting lessons were correlated with teachers' age, but not with their swimming instruction experience. The explanation of this result lies in the age-experience proportions noted among the examined teachers. Young teachers (24-34 years old) constituted 39.13% of the entire group, while teachers with experience up to 10 years amounted to 63.76%. Among those with a shorter experience were 13 teachers (18.84%) who had swimming classes for only one year. In contrast – teachers with the longest experience in teaching swimming (21-30 years) were just four (5.79%). It can be concluded that some older teachers, who taught swimming for a relatively short time, adopted successfully their previous experience in organizing and conducting physical education lessons.

The teachers who were qualified swimming instructors constituted 76% of the sample, so probably this is why they more often declared problems with preparation of swimming lessons. On the other hand, teachers without this

qualification might not have prepared themselves for class at all, but this supposition cannot be verified.

Professional literature provides some clues how to solve problems with organization of swimming lessons with pupils with different skill levels. G. Kosiba [9] recommends groups consisting of 4-7 pupils. Each group should include pupils with advanced swimming skills, pupils with intermediate skills and swimming beginners. They all are supposed to support each other, not only in competition, e.g. the group can be awarded for punctuality, organization (e.g. preparing accessories or cleaning up after the lesson), respecting the rules, etc. This method, according to the author, offers many advantages. Pupils with a good physical fitness have a possibility to show off in some exercises and they play an important social role by taking care of their less proficient teammates. Pupils with average and poor physical skills are also motivated because they can be awarded in other fields.

Another proposal is given by M. Karpińska [8]. If there are distinct differences in swimming confidence among the pupils, the ones with low confidence should be given supplementary exercises. For example, when proficient pupils perform a freestyle kick with exhales under water, less proficient pupils can repeat exhales walking in shallow water or practice freestyle kick while holding the edge of the pool. The live-guard supervision is absolutely necessary, because the teacher can not divide his attention to both groups.

The problem of pupils' motivation and disturbing behavior, mentioned by the examined teachers, has been described in literature. J. Perackova [11] gives some recommendation on how to solve problems with disturbing pupils and pupils without motivation during physical education lessons. Z. Stepień [15] writes about excessively agitated pupils who disturb physical education lessons, ignoring safety rules. In author's opinion these pupils should be engaged in performing unusual and interesting exercises with a great number of accessories. This way they will not be disturbing others and will not be behaving in a dangerous manner. J. Głuśniewska [6] notices that accidents during swimming classes are caused by pupils who perform dangerous stunts in the water, and who are not aware of the consequences of their actions.

A study by D'Arripe – Longueville et al. [3] shows that the teacher's skill level affects pupils'

motivation and performance. The results of their research revealed that the most skilled teachers achieved better results in teaching swimming than novice and intermediate teachers. This case may provide an explanation why young and middle-aged teachers in this study more often declared problems in conducting swimming lessons in contrast with older teachers in this study.

Building pupils' confidence in water, overcoming their anxiety and teaching correct swimming movements are the main tasks for primary school teachers, who constituted 76% of the sample.

Books and quality newspapers are the main sources of helpful information for the teachers. They include a wide range of exercises, but only a few recommendations how to solve methodological and organizational problems during swimming lessons. None of the teachers under study said that his/her source of information was a methodological conference, which he or she had attended. This is hardly surprising because in the Gdańsk area no such conference has been organized for years. It is an urgent task for universities of physical education to organize such meetings.

The advantages of swimming classes are obvious: these classes are even more effective (in terms of physical activity) than other types of physical education lessons [2]. But they must be performed in a wise and safe way by skilled and qualified staff. In fact, no data have been collected about the effectiveness of school swimming in Poland, although this kind of research has been carried out in other countries [14, 18].

It should be kept in mind that P.E. teachers often experience problems with allocation of proper exercises to pupils with different swimming skills. 15% of them declare these problems while preparing classes and 31% while conducting classes. Only 16% of P.E. teachers complain about the noise at the swimming pool and consider it to be a trouble-making factor; thus it is not a crucial obstacle in conducting swimming lessons. Finally, the lack of buoyancy accessories is troublesome in organizing swimming classes for only 8% of teachers.

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