SWIMMING DIDACTICS DIFFERENCES BETWEEN HEALTHY AND MENTALLY DISABLED PUPILS

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ABSTRACT

By means of case studies at children with Down syndrome we have introduced some knowledge about practical training of swimming and have described differences in didactics of swimming of disabled and healthy children. We used an action research at case studies method. Disabled children (2 boys, age 11, 12) were an experimental group. Healthy pupils (n=14, age 8-9) were a comparison group. The course of disabled children lasted 1 year. The course of healthy children lasted 6 months twice a week. Control tests at the end of the course included 25 m crawl and backstroke legs swimming with noodles, breathing into water while swimming with a swimming board.

Differences in didactics for experimental group: exercises only with direct help from the teacher in water, lower variability of exercises within an exercise unit, simple form of imitation of swimming motion out of water, limited cognitive part of exercises. Pupils in the experimental group accomplished the control test in limited extent. After one year of swimming course they were able to swim 25 m backstroke legs, 25 m crawl legs but not able to breath into water while swimming 25 m with a swimming board. These units require longer training. The comparison group successfully managed all the motoric tests.

Keywords: swimming, didactics, handicapped, pupils, early school age

INTRODUCTION

There is no systematically driven swimming education developed for mentally and physically disabled students in Slovak republic. Physical education special schools and various social facilities are being secured by pedagogues with general sports education (Labudová, 1992). These have high quality pedagogical education, but without specialisation within a particular sports education.

Main target of swimming training of mentally disabled children and youth is similar to educating healthy ones, being prevention, protection and compaction of health.

When creating the content of teaching swimming lessons, the biggest emphasis is put on the individual, with his specific health problems and needs.

Significant elements in swimming education management of mentally handicapped children are:

- family attitude and responsibility towards realisation of kinetic activities,
- student's level of mental handicap is defining in generating the educational content,
- consistent development of student's special motoric abilities in water, developing coordination and supported by water characteristics,
- high-level socialization.

Man's motor skills have different specifications in water compared to locomotion on land. Other than by age, it is significantly limited by cognitive, emotional and sensorimotor degree of development. The beginnings of a man's locomotion in water environment start with adaptation to physical characteristics of water, which is presented in swimming abilities…

Knowledge in swimming didactics of children and youth with mental handicap show, that swimming has a positive impact on motoric development regardless of the difference between medical and physical weakening (Bělková–Preislerová, 1988, Bělková, 1994, Thurzová, 1988, Břečková, 2002, Čechovská, 2002). Effects complexity of motoric activities show positive changes in physical and social areas with special groups of population. (Samouilidou – Valková, 2007, Francová, 2012).

The article is looking for answers to little researched problems within swimming didactics and it presents findings on how didactics are specific in teaching swimming to children with Dawn syndrome. It compares these findings to didactics used when teaching swimming to healthy children in younger school age.

Aim of this article is to present basic differences between teaching swimming to handicapped and healthy children.

METHODS

We have applied action research while using casuistic method; Handicapped students (2, boys, age 11, 12 years) formed the experimental group. Healthy students (n=14, age 11-15 years) formed the control group. Swimming course of handicapped children lasted one year. Swimming course of healthy children took six months, with frequency twice a week. Swimming lesson lasted 45 minutes.

Basic swimming course content was specifically put together for handicapped children. It was formed by these exercises: 1/3 consisted of water games to get to know the water environment, 1/3 consisted of rehearsal of the basic swimming abilities, and 1/3 consisted of rehearsal of the swimming styles backstroke, breaststroke and crawl.

Control tests at the end of course of both groups consisted of: to swim 25 m crawl and 25 m backstroke legs with swimming noodles, breathing into water while swimming with the kickboard. Swimming aid for technique rehearsal within the handicapped group was the swimming noodle.

RESULTS

In teaching swimming, we take the motoric continuity with additional developing components as natural with healthy individuals. With handicapped though, cognitive and motoric restraints limit content quality and quantity for motoric development. Target quality of swimming locomotion with handicapped children is substantially differentiated not only inter- but also intra-individually compared to healthy children. Motoric development and its targeted guiding is limited by interaction *student – content* while teaching to swim. Accelerating and retarding influences during evolvement of basic and special senso-motorics, defined by CNS functions and intellectual personal characteristics, are reasons to create the flexible swimming educational model. This model for children with special needs has to take into account mental development and actual mental state during teaching process. Psychiatric and mental development of a student limits motoric teaching. In water environment, this is shown as a speed and quality of acquiring basic swimming abilities.

During one year, we have evaluated and compared differences (time and quality of acquiring of swimming component) in acquiring swimming abilities (breathing, merging, and orientation in water) and rehearsal of swimming technique of freestyle and backstroke legs, breaststroke arms. With mentally disabled children, new motional potential and knowledge are more disorganized and for longer time and are often kept without motion-logical connection compared to healthy children.

As same content was kept in both groups, we have ended the program in control group after six months. Educational content for further locomotion development was insufficient for healthy children.

Differences in didactics and achieved results:
Experimental group:

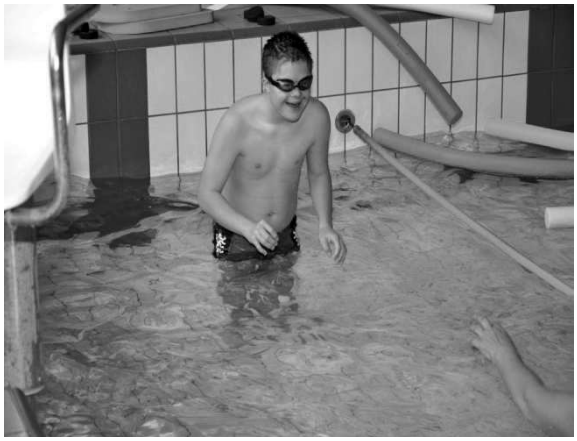
- exercises only with direct help of a teacher in water
- less exercise variability in an exercise unit
- transfer of motion rehearsal from land to water is not effective
- cognitive side during exercise execution is limited

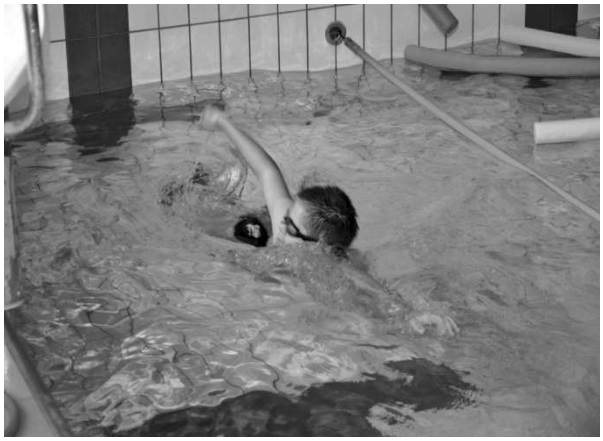
Control group:

- no direct help
- higher exercise variability
- more complex exercise on land as well as in water
- motoric, emotional and cognitive side during swimming locomotion education is mutually supplementing

Mutual characteristic in both groups was spontaneous happiness from movement in water.

While comparing content efficiency in both groups, the results were significantly different. After long year swimming course, experimental group did not pass control tests 25 m backstroke legs, 25 m freestyle legs nor 25 m breathing into water swimming with board. To acquire these swimming abilities, longer time of 2 – 3 years is needed with mentally disabled children. Control group passed all the tests at the end of the swimming course in full extent.





CONCLUSION

With handicapped children, two or three times longer time is needed to manage swimming abilities than with healthy children.

Despite different motoric docility, we encourage to use the potential of water environment and general bio-psycho-social development while teaching swimming to handicapped children. We accentuate the share of special motoric on overall harmonic development of a personality. The results present specific area of didactics, immediately applicable in pedagogic practice.

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