



INCLUSION AND HEALTH: LEARNING SKILLS IN YOUNG WITH PHYSICAL DISABILITIES - BASIC TOPICS

Vasiliki Ioannidi¹ⁱ,

Markos Karvelas²

¹Hellenic Open University,
Greece

²National and Kapodistrian University of Athens,
Greece

Abstract:

This paper describes good practices for learning skills and educational empowerment of children and persons with physical disabilities in an interdisciplinary framework of education, cooperation and health care. Also, the family has an important role to play in supporting the child to integrate equally into society. The purpose of this work is to highlight through a brief literature review pedagogical ways and didactic techniques of inclusive education for young with physical disabilities in school and in the community.

Keywords: inclusion, physical disabilities, good practices, skills, pedagogical rehabilitation, educational empowerment

1. Introduction

Problems with physical disabilities can affect a person's academic progress and quality of life because they limit their ability to function, cognitively, socially and emotionally, mobility and leisure activities, sensory functions and communication (Heward, 2011). Inclusive education is a determining factor in the overall development and evolution of the individual for the range of knowledge and experiences he will receive in the social environment. Our goal is to improve educational policy and practice for students with disabilities and special educational needs (<https://www.european-agency.org/E%CE%BB%CE%BB%CE%B7%CE%BD%CE%B9%CE%BA%CE%AC/publications>).

Thus, in the context of inclusion of physical disabilities, the principles of applied rehabilitation are the biopsychosocial image of the individual, the interdisciplinary team approach, the individualized orientation, the therapeutic approach and the cooperation with others.

ⁱ Correspondence: email vioannidi@windowslive.com, ioannidi.vasiliki@ac.eap.gr

2. Good practices of rehabilitation and educational empowerment

According to Fuller & Manfotd (2000), the goals of rehabilitation are to prevent complications, teach adaptation strategies, and facilitate the functioning of the individual in his usual environment. The rehabilitation process includes educating the person with a disability and their relatives, as well as providing them with practical, emotional and psychological support. Appropriate modification or intervention in the interaction of the disabled person with his environment can allow him to perform important daily tasks, greatly preventing any difficulty. For example, the plasticity of the nervous system (Battro *et al.*, 2011) is higher in children and clearly decreases with age. Therefore, the teaching of rehabilitation strategies is based on the assessment of the individual's needs in combination with his environment and the design of other strategies and aids to minimize disability and difficulty.

A framework of good rehabilitation and training empowerment practices includes learning self-determination and self-defense skills to increase the independence and autonomous performance of specific health care routines. The education of young people with physical disabilities should be inclusive within the general school and within educational contexts with peers of typical development (Blecker and Boakes, 2010).

Principles for facilitating the learning of people with physical disabilities and their families are the following instructions (Kotzambasaki, 2010):

- Create the appropriate physical and psychological learning environment.
- Use multisensory methods.
- Involve the person and their environment in the learning process.
- Examine their pre-existing knowledge in relation to the topic to be developed.
- Start with the most important views around the topic and then refer to the less important ones.
- Connect the information with the needs and interests of the individual and their families.
- Check the understanding of the information given and carefully observe question points.
- Avoid specific medical terminology.
- Adapt the content of your teaching to the cultural values of these individuals and their families.
- Use repetition.
- Observe signs of fatigue, stress, etc. and summarize by repeating the information provided by the individual.

More specifically, a physical education program has been characterized as a problem-solving process with the following steps (Koutsouki *et al.*, 2000):

- Defining the problem, where the person determines the initial and the final situation and understands the needs and the differences between them.
- Construction of a design, which is a repetitive process of evaluations, simulations, proposals, etc. to the final state, as well as a process of multiple decisions from the abstract to the concrete.

- Execution of the design, which concerns the complexity of kinetic frequency and ranges from easy to most difficult.
- Assessment of progress, where the individual decides whether the strategy should be executed, assessing progress in terms of the goal.

Here, it should be emphasized that health activities and therapeutic activities are determined by the individual's knowledge base and are characterized by a critical factor: self-efficacy. Self-efficacy has been shown to contribute significantly to the prediction and treatment of behaviors related to health and treatment, with a key point of reference that cognitive factors affect health behaviors and self-efficacy, e.g. personal beliefs and perceived benefits for a recommended behavior (Bandura, 1997; Maddux, 1993, as cited in Schunk, 2009). In conclusion, the role of the trainer and the way of training regarding the learning of skills and/or health activities are important.

At the same time, cooperation with the family is increasingly recognized, and the work of parents is becoming more and more valuable because, among other things, parents also act as trainers and can work effectively with professionals who support a person with a disability (Whalley, 2017). The best possible application of communication methods and cooperation practices between education and training institutions and the family can be useful in the construction of individualized training programs, aimed at addressing disabilities and special educational needs in a communicative, cooperative parenting and educational context under one interdisciplinary prism of all special education and health care professionals.

3. The role of the trainer

As people with physical disabilities give up on life and educational processes, focusing more on health problems and often failing to work with the rest of the group (Petrou, Sotiriou, 2007), their way of education and the choice of teachers' methods play a critical role.

According to Noyé & Piveteau (1998), trainers have the need to choose between different ways of education, when preparing a health activity, e.g. training techniques, exponential and indicative methods, etc. In the context of indicative methods, the trainer possesses and transmits specific knowledge by explaining and showing. Thus, individuals can experiment with behaviors that they have to reproduce. This is a practical training process and requires specific phases, such as:

- Preparation (ensuring appropriate conditions, highlighting the usefulness of participation).
- Presentation of participation arguments under a specific plan and presentation of information.
- Organization of execution exercises (repetition of exercises and any corrections, explanations of understanding).
- Guidance through questions and inquiries, verification of correct execution and finally gradual autonomy of the person with people with disabilities.

Also, selected techniques that can be used to involve a person with a physical disability in their health care are (Noyé & Piveteau, 1998):

- The presentation where information is presented in a limited time, possibly with audiovisual support.
- The handling of an object where the person is encouraged and motivated in the development of specific skills and handles some tools, machines, etc.
- Experimentation where the individual participates in a health care activity under the guidance of the trainer.
- The evaluation where behaviors, achievements and difficulties are examined. Evaluation is a means of encouragement.
- The practice where the person with a disability systematically develops activity in order to stabilize a skill. Repeat required.
- Scheduled training is based on the collection of teaching materials or training software and is adapted to individual learning rates.

At this point, we must mention that research has demonstrated the effectiveness of demonstrations as a teaching strategy for learning skills. Guidelines for effective demonstrations of skills in caring for people with disabilities are as follows (DeYoung, 2010):

- Configure the environment as best you can.
- Perform the process step by step, explaining both the specific process and your reasoning.
- You may need to perform a skill a second time.

In particular, in a skills-teaching context, learning is divided into two stages (DeYoung, 2010):

- Understanding the concept of movement, where the person faces a need, a problem and, therefore, understands a goal: the idea of movement.
- Then the learner begins to plan movements.
- Thus, the movement plan is created, which is performed by the learner.
- In this way, once the movement is successful, the learner enters the stage of stabilization.
- If the skill goal has not been achieved, he will have to repeat the process of understanding the movement.
- In case of stabilization, the person must practice and perfect the skill in different environments depending on the circumstances.

Overall, it is important to know that the trainer's role at this stage is to prepare or supervise the practice. Practice is necessary in order to impress the sequence of movements in the learner's memory. However, the percentage of practice required depends on the complexity of the skill, the motivation of the learner and the knowledge of the relevant skills. Practice allows the learner to perfect performing the skill.

4. Conclusion

People with physical disabilities are forced to adapt to ever-changing environmental conditions and with all the difficulties due to physical limitations. This constant effort burdens their health, especially their mental health. However, the benefits of exercising and participating in the use of motor activities are significant, as research shows. However, trainers, teachers and educators must give the exercise those characteristics that will give the feeling of challenge, satisfaction and pleasure to participate, building a sense of cooperation through the educational process (Skafida *et al.*, 2000).

Activities can be a strong motivator for learning and inclusive education to maintain children's interest (<http://prosvasimo.gr/el/gia-mathites-me-kinhtika-provlimata/ekpaideutiko-logismiko-gia-mathites-me-kinhtikes-anaphries>). Therefore, the interdisciplinary approach and the importance of the interdisciplinary team is therefore of paramount importance in the treatment and special education needed by people with physical disabilities. Doctors, teachers, therapists and other specialists in the field of education and health come in contact and work together to deal effectively with the complex educational and emotional social needs of these individuals. New technologies at all levels of social life e.g. education, work, etc. can contribute to this process (Voevodina, 2022). People with disabilities and chronic health problems should be encouraged to develop self-esteem, positive perception, realistic performance and behavior criteria, and ultimately a fair place in society, family, and school (Heward, 2011). The main demand of inclusive education today is the development of a cooperative relationship between education, social organizations and the family, people with disabilities essentially need joint cooperative action between the educators and the family environment (Berger, 2004; Seligman & Darling, 2007).

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Dr. Vasiliki Ioannidi (PhD/Dr.phil.) is a university staff scientist, researcher and academic author and supports with her works Teacher Education Program. She holds a B.A. in Philology and a PhD/Dr.Phil. in Pedagogy/Special Education (Greek State Scholarship Foundation) from School of Philosophy, National and Kapodistrian University of Athens (NKUA) and Certification in Special Education Programs, Neurosciences & Education, Adult Educators Training and Open & Distance Learning. In addition, she is a member of the ÖGKJP-Sektion Klinische Pädagogik. She is an instructor for a lifelong e-learning funded program (NKUA). She is an Adjunct Faculty at the Hellenic Open University (Special Program of Pedagogy and Didactic). Also, she is an Adjunct Faculty in the Joint Postgraduate Program of Special Education at the University of Nicosia (School of Education) with University of Patras. She has published books and authored journal articles, e-books, conference papers and book chapters (Greek, English, German). Her research interests are Special and Inclusive education,

Interdisciplinary & Innovative practices in Inclusive Pedagogy and Teaching & Digital Education through Teachers' education activities.

Dr. Markos Karvelas (Dr.med.) studied at the School of Medicine, University of Marburg, Germany. He was specialized in the field of Neurosurgery at the University Clinic of Neurosurgery, University of Marburg, Germany and at hospitals in Germany and Greece. He was awarded a PhD in Medicine from the School of Medicine of the National University of Athens (NKUA). Then he completed his fellowship in postdoctoral training at the University Clinic of Neurosurgery, University of Vienna. He has also participated in postgraduate training courses abroad and in training and operative practice (workshops) both abroad and in Greece. He has participated in the conduct and implementation of various research protocols. He is an academic tutor-author at the Centre of Continuing Education and Lifelong Learning of the NKUA (e-learning courses) and he teaches fields of neuro-traumatology.

References

- Battro A M, Stanislas P, Wolf J S, 2011. Human Neuroplasticity and Education. The Proceedings of the Working Group, 27-28 October 2010. Vatican City 2011.
- Berger E, 2004. Parents as partners in education. Families and school working together. NJ: Pearson Merrill Prentice Hall.
- Blecker Norma S, Boakes Norma J, 2010. Creating a learning environment for all children: are teachers able and willing? International Journal of Inclusive Education, First published on: 01 April 2010 (iFirst) To link to this Article: DOI: 10.1080/13603110802504937URL: <http://dx.doi.org/10.1080/13603110802504937> (PDF) Creating a learning environment for all children: Are teachers able and willing?. Available at: https://www.researchgate.net/publication/248988538_Creating_a_learning_environment_for_all_children_Are_teachers_able_and_willing [accessed Mar 29 2022].
- DeYoung S, 2010. Teaching Methods in Nursing Education. Athens: D. Lagos (in Greek).
- Fuller G, Manfodt M, 2000. Neurology. Athens: Parisianou (in Greek).
- Heward W, 2011. Children with special needs. An introduction to Special Education. Athens: Topos [in Greek].
- Kotzampasaki S, 2010. Teaching and learning in Nursing and other health sciences. Athens: BHTA (in Greek).
- Koutsouki D, Asonitou A, Charito S, 2000. Motor learning and Mental retardation. In: Kypriotakis A (ed), Proceedings of Special Education (pp. 742-749). University of Crete, School of Education, Department of Primary Education (in Greek).
- Noyé D, Piveteau J, 1999. Practical Guide of the Trainer. Athens: Metaixmio (in Greek).
- Skafida F, Douka A, Koutsouki D, 2000. The effect of adapted physical activity on the mental health of people with disabilities. In: Kypriotakis A, (ed), Proceedings of Special Education (pp 755-765). University of Crete, School of Education, Department of Primary Education (in Greek).

- Seligman M, Darling B, 2007. Ordinary families, special children. New York: The Guilford Press.
- Schunk D H, 2009. Learning theories. An educational optics. Athens: Metaixmio.
- Voevodina E V, 2022. Technologies of inclusion of the disabled and persons with disabilities. Moscow, INFRA-M. DOI: 10.12737/1414400 Available at: <https://naukaru.ru/en/nauka/textbook/3564/view> (Accessed 29 March 2022).
- Whalley M, 2017. Involving Parents in their Children's Learning. A Knowledge-Sharing Approach. Sage publications.

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Public Health Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).