
INNOVATIONS AND CREATIVITY IN OCCUPATIONAL THERAPY FOR INCLUSIVE EDUCATION AND SENSORY IMPAIRMENTS¹

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***Abstract:** The paper reviews the experience of students in occupational therapy programme in University of Ruse during an international module “Innovation and Creativity for Life”. Team of students from different specialities had developed ideas and some basic prototypes of innovative decisions of health and social disadvantaged people. The paper presents the work of the students on the problems of inclusive education and play, and blindness. The ideas are based on existing technologies and some new slutions. “Inclusive school of the future” combinies existing technologies in order to create accessibility to learning experience for children with different disabilities. “Discovery village” is an idea for inclusive playground for all children. A solution for blind people designed, based on existing technologies. The module provided additional knowledge and competences in innovations and creativity.*

***Keywords:** Innovations, creativity, disabilities, occupational therapy*

INTRODUCTION

University of Ruse was hosting the 6th edition of the international module “Innovation and Creativity for Life” (IC4Life) 2019. 27 Students and teachers from Belgium, UK, Lithuania and Bulgaria participated in the module. Our university was represented by 13 students form Occupational therapy programme, Industrial design, Computer systems and technologies, Buisness and management and Public administration programme.

During one week, the students worked in five international interdisciplinary teams to develop innovative solutions to different health and social problems. Students had to prepare an idea or prototype and a business plan for their application. At the end of the week, the teams presented

¹ Докладът е представен на студентската научна сесия на 10.05.2019г. в секция Промоция на здраве с оригинално заглавие на български език: ИНОВАЦИИ И КРЕАТИВНОСТ В ЕРГОТЕРАПИЯТА ЗА ПРИОБЩАВАЩО ОБРАЗОВАНИЕ И ПРИ СЕНЗОРНИ НАРУШЕНИЯ

their work, which was evaluated for creativity, innovation, relevance, business plan and presentation.

EXPOSITION

The definition of the WFOT from 2012, states, "Occupational therapy is a client-centred health profession concerned with promoting health and well being through occupation. The primary goal of occupational therapy is to enable people to participate in the activities of everyday life".

Social inclusion is a main OT goal for people with disabilities that could be achieved by:

- modifying the teaching strategies to include more verbal support, problem solving and videotaped instruction for clients with a variety of needs;
- collaboration with stakeholders such as national and regional jurisdictions, professional associations, health and human services;
- service organizations and communities to promote social inclusion in programs and services in order to promote social inclusion;
- promote understanding of the relationship between social inclusion, occupational engagement and health and well-being. (CAOT)

Inclusion for children with disabilities

There are many factors influencing the process of inclusion for children with disabilities in the mainstream school. One of the team members in that process is the occupational therapist. His role in inclusive education could be defined as:

- Assistance in the development of the individual learning profiles.
- Aid in the development of differentiated instructional strategies.
- Recommendations for materials, tools and/or technology to facilitate learning.
- Participation in enhancing teacher capacity through in-service and the provision of resources. (CanChild – research centre of McMaster University, Canada)

Collaboration is a key to inclusion's success because students benefit from the educational programs and are integrated into the social environment of their classrooms. Assistive technology has aided children with multiple disabilities to improve access and participation in their school and home environments. (Copley & Ziviani, 2004)

Chantry & Dunford, 2010, undertook a systematic search and review of contemporary literature pertaining to computer use by children with severe and complex disabilities and the impact on their participation. The findings supported the use of computer technologies for participation to a varying degree in all occupational performance areas, but were particularly positive in the areas of education, communication and play activities for children with disabilities and innovative solutions for inclusive classrooms.

The participants in the module IC4Life had to create solutions for two aspects of inclusion – education and play. The group for inclusive education (Dice solutions team) had the idea to combine different existing solutions from a technology perspective and together (occupational therapists, engineers and management specialists) to develop a prototype for "Inclusive desk" (figure 1).



Fig. 1. “Inclusive desk”

The second group (Team BETHA) had the idea of „Discovery village” (figure 2). It would be an inclusive playground for every child with or without disability. The games are safe, accessible, interesting and appropriate for sensory and physical disabilities. Their idea is also to combine with an App for informing the parents for some health issues and location. It could also navigate the child through the playground.



Fig. 2. “Discovery village”

Creative solutions for blind people

Occupational therapy could help individuals with low vision or blindness with compensatory strategies. Occupational therapy practitioners adjust the tasks or environment for the individual’s needs and provide training or assistive technology to assist the individual in accomplishing tasks despite limitations by the vision loss.

Technology to help people with disabilities is developing in a way that will allow blind and visually impaired people to see again. There are many invented solutions in that area. Some of them are: Assisted Vision Smart Glasses, Braille ebook reader, FingerReader, different apps, special talking devices; computer technology; special writing materials; tactile markings; and other environmental adaptations. shoes with sensor etc.

The students looked at all the existing technology and tried to make a solution that could combine them. Their suggestion during the module was to create a combination of special glasses and shoes, that could navigate and help the blind person to walk safely and freely in the environment (figure 3).

The future of the technology is very important in the area of occupational therapy, because its help will allow people with disabilities to participate in everyday occupations independently.

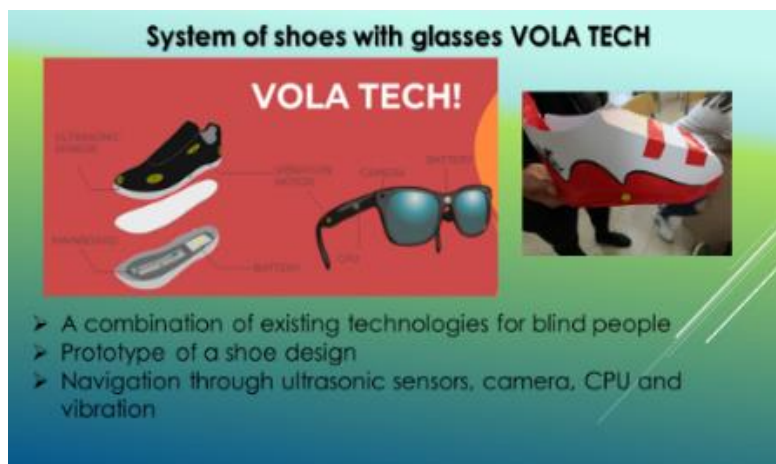


Fig. 3. "System of shoes and glasses for blind people"

CONCLUSIONS

The participation in this module was an example of internationalization and teamwork. Overcoming the difficulties of people with disabilities should be mission for all the citizens. Our work in teams with different specialities proves that together we are stronger and have special competences.

It was very usefull and exciting to work in international environment and to experience new methods and approaches of education and research. We were enriched with new knowledge experiences, skills and competences.

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