

LEARNING BY DOING

Case examples from Satakunta University of Applied Sciences



Satakunta University of Applied Sciences

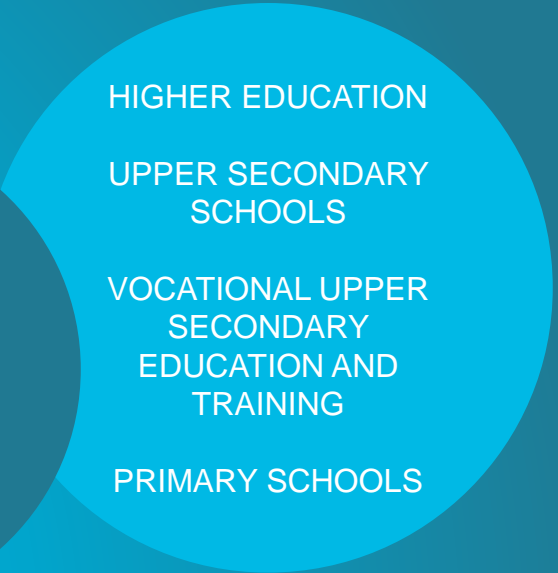


THE UNIQUE LEARNING PROCESS

Students are

- receiving the support and guidance from teachers and other experts
- becoming professionals by doing the work
- gaining valuable contacts across industries





THE UNIQUE LEARNING ENVIROMENT

Students have

- a chance to work in our joint use laboratory: RoboAI
- the support and guidance of their teachers and mentors
- access to the latest innovations and technology



GOALS AND ACHIEVEMENTS

Students

- receive valuable feedback from both the client and the teacher
- gain an understanding of the process behind project work
- build confidence in their craft through practical experience



APPLIED RESEARCH AND COLLABORATION

CASE:

Robot assisted gait training
with exoskeleton



DEVELOPMENT BASED ON WORKING LIFE'S NEEDS

- expanding knowledge and skills
- implementing evidence-based practice
- creating new evidence-based knowledge
- providing new experiences







CASE EXOSKELETON

- purchased in Health and wellbeing enhancing technology research team
- used in
 - education for students and local physiotherapists
 - research and piloting in collaboration with local hospitals and clinics
- in Finland in five rehabilitation centers and individually used with 2 people
- worldwide many commercial devices – research mainly on feasibility and safety less RCT

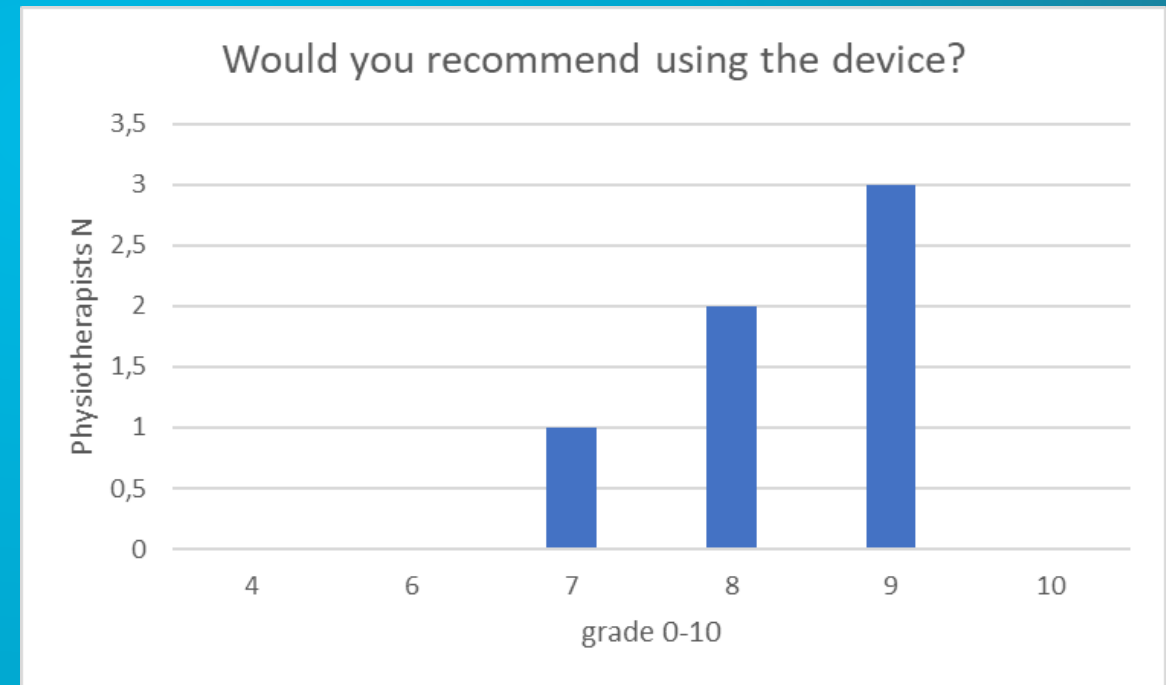


RESEARCH WITH EXOSKELETON

OVER-GROUND ROBOTIC LOWER LIMB EXOSKELETON IN NEUROLOGICAL GAIT REHABILITATION - USER EXPERIENCES AND EFFECTS ON WALKING ABILITY

Part 1: Physiotherapists' user experiences

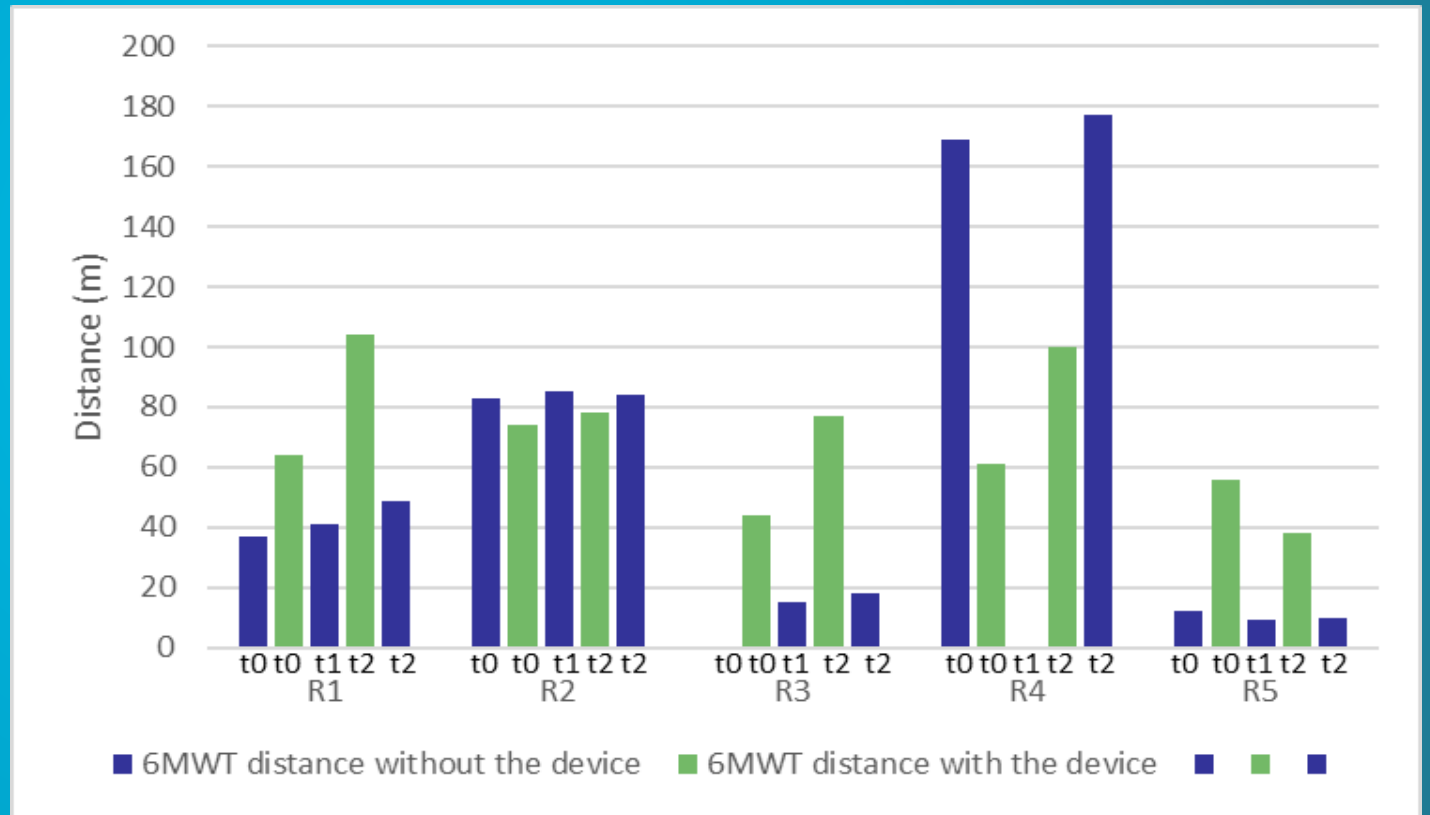
Questionnaire of user experience for physiotherapists using the device



RESEARCH WITH EXOSKELETON

Part 2: Rehabilitees' user experiences and effects of Indego training

Practical training period of gait training with participants with stroke or traumatic brain injury



6 minute walking test

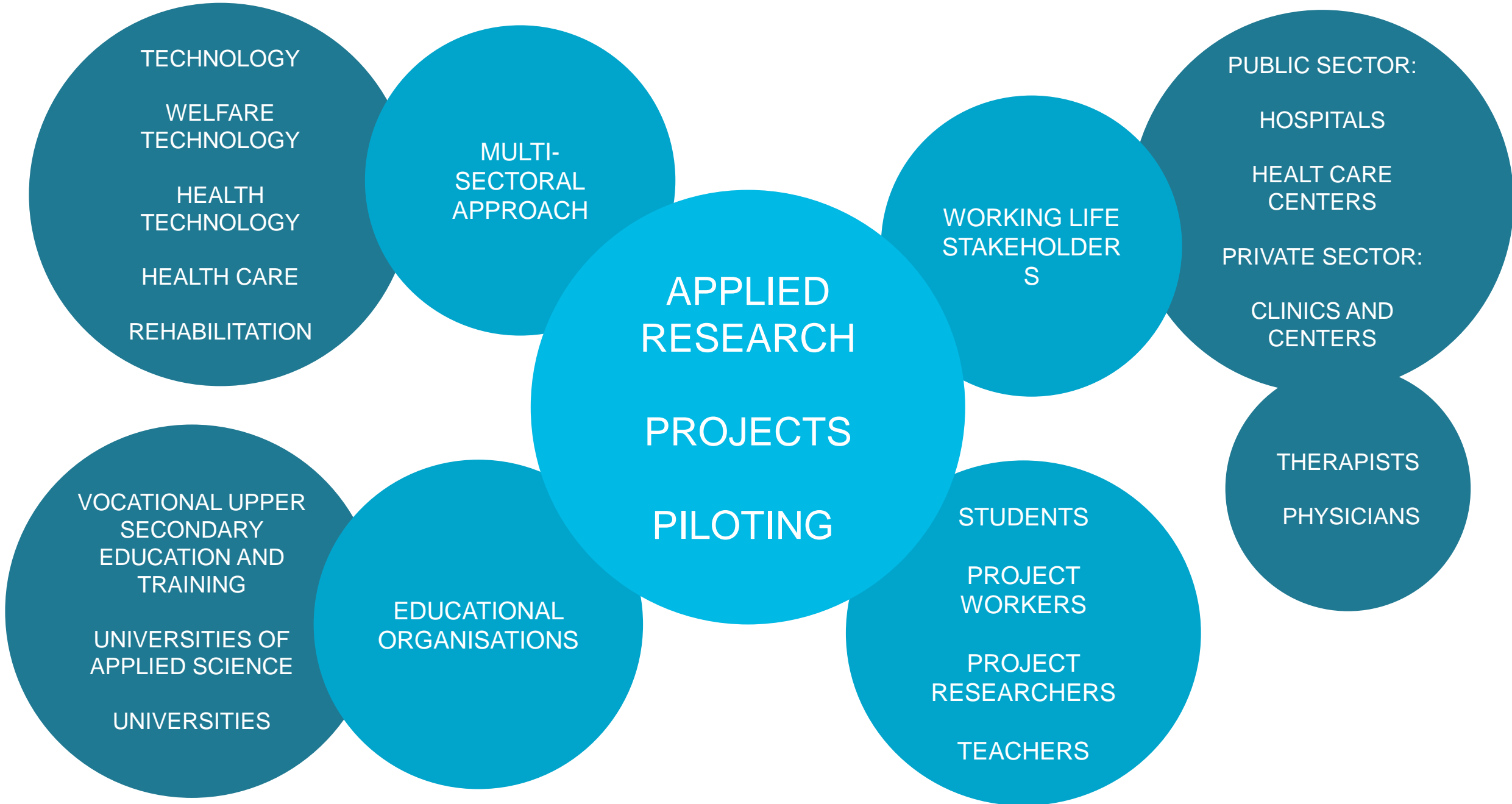
FUTURE RESEARCH WITH EXOSKELETON

Patients' and therapists' user experiences

Other technology possibilities for measuring effectiveness and effects:

- EEG, EMG
- effects on function, coping with daily living





QUESTIONS & ANSWERS

Learning by doing at
Satakunta University of Applied Sciences



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