A wide range of expertise for different care perspectives

Created on 15 September 2021, RUCHE is an interfaculty structure gathering a team of researchers who take complementary views on individuals health and education at all stages of life. Embracing domains such as e-health, speech therapy, physical activity promotion, or educational sciences, this multidisciplinary team adopts a holistic approach to individuals, whether their development is typical or atypical, in various contexts.

Virtual reality (VR), mobile applications, high performance tools and know-how for treating, optimizing, promoting oral communication, physical activities, mental health, and supporting childhood and families



© Sandrine Seyen - At the centre of the picture, Prof. D. Morsomme, Head of the Research Unit for a life-Course perspective on Health and Education - RUCHE, together with her colleagues Dr. A. Mouton (PhD, vice-director, left), and Dr. A. Wagener (PhD, scientific coordinator, right).

Many different care methods for different populations. RUCHE is well aware of this: with 79 members including PhD students, academics, assistants and clinicians, this research unit specializes in technological innovations for health and education at all stages of life. They stand out in particular by the following projects.

Voice and speech domain

The VirtuVox project gave rise to a virtual classroom to train teachers’ oral communication skills, whereas the Speak in VR project aims to design a virtual environment to improve public speaking. Together with health psychologists, the potential of VR to encourage trans people using their harmonized voices in their daily life is explored.

Health domain

Some researchers assess VR biofeedback-assisted relaxation in the management of pediatric headaches or its usefulness in adults' emotional regulation. Another project aspires to individualize functional management of post-intensive care syndrome using biomarkers.

Early childhood and family research

An important area of research concerns early childhood (e.g., children's motor behaviour) and childcare professionals' perception on gender issues in an intercultural context. A series of experimental protocols focus on marital and family relationships (with mixed protocols combining large-scale quantitative and qualitative research).

Movement Sciences and physical literacy

Finally, the research unit advocates a physically active and healthy lifestyle through research conducted in the field of Movement Sciences. Employing concepts such as physical literacy in educational or paramedical contexts, the physical care of healthy or chronically ill participants, at every stage of life, is optimized.

Cross-disciplinary research

Some research is conducted in a cross-disciplinary approach. For example, a project aims at reducing pre-competitive anxiety in athletes by immersing them in a relaxing VR environment. Psychology, Sports Sciences, and new technologies are thus combined to benefit the performance of athletes.

Bringing researchers together for transdisciplinary approaches

In April 2024, RUCHE organized its first congress – 'Health and education at all ages of life. Transdisciplinary approaches to quality of life' -, proving its ability to bring together researchers from different fields around a unifying theme and to place its work within a broader human and societal framework.

The 'one health' concept

This is the whole point of the 'one health' concept, which makes it possible to reflect on the impact of the methodology used. Which methodology is the most environmentally-friendly possible and the most effective? Not forgetting the context in which the patient

is evolving and the integration of Evidence-based practice into clinical practice.

A common thread: improving quality of life through collective expertise

Through its various activities, RUCHE is following a common thread: enabling everyone to find the resources they need to cope with their difficulties and improve their quality of life, taking account of an eminently complex framework by bringing together a range of expertise to map out therapeutic pathways that are better adapted to the needs of patients and users.

Future challenges

There are a number of challenges to be met: getting e-technologies recognised in care plans, improving how carers take account of the values and preferences of any people considering their diversity.



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