

MOVEMENT THROUGH GAMING FOR ALL



HOW MIGHT WE ?

use movement-based **extended reality games** to enable young people with **motor disabilities** to participate in **physical activity** in equal terms as their able-bodied peers?

THE GOAL !

is to provide young people with motor impairments equal opportunities to participate in physical activity as their able-bodied peers to **improve health-related quality of life.**

FOR ALL

While individuals vary, each player, whether disabled or not, should be able to have the opportunity for the same gameplay experiences. The game should be targeted at youths.

GAMING

The game can use virtual, augmented, or mixed realities (or a combination).

SUCCESS

HOLISTIC

Health-related quality of life encompasses physical, mental, and social well-being. The game must have a strong focus on each of these components, while finding interesting ways of supporting mental health.

FOR MOVEMENT

The game must include movement in the physical world as part of the gameplay.

CRITERIA

Sport activities provide opportunities for physical activity and social interaction, which is conducive to well-being, health, and the prevention of many diseases.

At the same time, sports participation among children across all gender and age groups has fallen significantly in the past decade. This trend is increasingly reflected among young people with mental disorders, behavioral disorders, and motor disorders including cerebral palsy, who have many challenges and barriers to sports participation. Youths with motor impairments, especially, have less opportunities for social activities, and consequently have fewer social experiences with peers than youths without disabilities. This puts them at a high risk for social isolation.

At the same time, within the sports industry, extended reality is described as one of the biggest current trends. Here, games developed using innovative technologies, such as virtual, augmented, and mixed reality, provide new opportunities to connect and interact with one another. Movement-based extended reality games thereby provide novel opportunities to move creatively, engaging in physical activity essential for health-related quality of life.

Not only for youth with motor impairments, but for all: As we embark in developing movement-based extended reality games, it is crucial that we support health-related quality of life holistically, by ensuring people with and without disabilities can play together on an equal level playing field. We need to design inclusively and fairly, allowing both people with and without disabilities to socialize, move, and play together equally.