

Mental Skills Training with Virtual Reality



Newsletter 5

DECEMBER 2023



Co-funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them. Project number. 101050758.



Center for Social
Innovation



VR-MS: Mental Skills Training with Virtual Reality

Newsletter 5

Training mental skills in football. Digenis Akritas Morfou is paving the way.

Competitive sports like football have become multi-billion-euro industries with clubs around the world investing lots of money in improving the performance of their athletes and achieving success at competitions. For many years, efforts have been focused on the development of physical skills and tactics. To that purpose, new fitness protocols have been developed and novel technologies such as GPS and other sensors, are typically used to collect and analyze performance data.

Beyond physical skills and tactics, elite clubs have begun to focus on another factor that seems very crucial for performance: the mind. Indeed, high profile coaches have publicly acknowledged the importance of mental skills for achieving elite performance. Characteristically, in one interview, Pep Guardiola, coach at Manchester City, has declared: "I don't believe in the physical condition. The mind controls everything". Of course, what he probably didn't mean that physical condition is irrelevant for football. Rather, what he meant is that at the level of the Premier League, where every player is in top physical condition, what sets certain players from the rest is the functioning of their mind. After all, as former Italian international and current coach Andrea Pirlo points out, "football is played with the head. Your feet are just the tools".

In Cyprus, only very recently have clubs begun to integrate the training of mental skills in their routines. A notable example of a club that works on mental skills is the 2022-23 Champions, Aris Limassol. For the last 3 years, goalkeepers at Aris have been using state-of-the-art Virtual Reality technology to exercise their attention and perception skills, thus improving their reaction speed. Still, the most comprehensive endeavor in the direction of mental skills is led by an unlikely contender, the historic club of Digenis Akritas Morfou. The small club of Digenis maintains football teams at all levels, including the men's team that is now in the second Division. Unlike most clubs, the men's team of Digenis is comprised of young Cypriot players. Notably, 25 out of the 30 players of the current men's squad, whose average age of the squad is only 22.5 years, are Cypriots. This documents the commitment of the club to invest in the development of local talent.

For project VR-MS (the acronym stands for Virtual Reality training of Mental Skills), Digenis has been collaborating with local and international scientists to develop custom tools which can then use for the assessment and training of mental skills, such as attention, perception, memory, and spatial awareness. Working closely with Sports Psychologists from the University G.D 'Annunzio Di Chieti-Pescara of Italy and Cognitive



Psychologists and Neuroscientists from the University of Cyprus, the club has designed a suite of computerized applications that are currently used to assess and exercise mental skills in its players, starting from the men's team and going all the way down to the young stars of the club's Youth Academy. Led by Digenis, project VR-MS also involves MentisVR Ltd, the Cyprus-based company responsible for the goalkeeper applications used by Aris Limassol and other clubs abroad (e.g., the champions of Israel Maccabi Haifa). This has allowed Digenis to leverage existing Virtual Reality applications for the exercise of mental skills. Last but not least, the project includes the Cyprus Center for Social Innovation which helps Digenis promote mental skill training to the community at large and to the relevant stakeholders.

The project undertaken by Digenis Akritas Morfou has received competitive funding from the European Union under the Erasmus 2021 Sports Actions. This funding has allowed the club to upgrade its training facilities with innovative technologies such as Virtual and Augmented Reality and to implement a data-based approach in player training and in talent development. Beyond making some of the newly-developed tools freely available for use by other clubs and the public, the club also plans a series of seminars on the use of technology in football that will be open to the public.

Beyond VR-MS, Digenis collaborates with scientists from the [Memory and Attention Development Lab](#) (MADLab) of the University of Cyprus on a project that is funded by the Cyprus Research Promotion Foundation and involves collecting electrophysiological data from football players carrying out cognitive tasks. By collecting and analyzing brain waves from its players, the clubs aims to develop personalized training protocols that will improve performance on the pitch.

For more information on the research and innovation activities led by Digenis Akritas on mental skills, you can follow the project VR-MS on [Facebook](#) or the official [Twitter feed](#) of the club where updates about the training and testing sessions are continuously posted.





Scaling-up event: 'Mental Health in Sports: Resounding Silence'

On the 17th November 2023, the VR-MS project, represented by our Project Coordinator, Dr Marios Avraamides from Digenis Akritas Morfou, participated in the 2nd MHSCY Mental Health in Sports Cyprus Conference, offering valuable insights to the participants when it comes to the aim, objectives, overall work and deliverables of the project. Dr Avraamides presented the main activities, milestones and deliverables of the project and updated the audience on the trainings and testings implemented by Digenis Akritas Morfou regarding the mental health trainings of its team using the latest VR technology developed by our partner MentisVR.

Congratulations to all!



DIGENIS AKRITAS MORFOU
MENTAL SKILLS TRAINING WITH VIRTUAL REALITY



Scaling-up event: 'NRNA Cyprus Futsal Championship'

On the 12th November 2023, the VR-MS project, represented by Digenis Akritas Morfou, and Center of Social Innovation participated in the NRNA Cyprus, disseminating the project and offering valuable insights to the participants when it comes to the aim, objectives, overall work and deliverables of the project. Though discussions with the participants passing by our booth, we offered knowledge and information about the main activities, milestones and deliverables of the project and updated the audience on the trainings and testings implemented by Digenis Akritas Morfou regarding the mental health trainings of its team using the latest VR technology developed by our partner MentisVR.

