EGInA – European Grants International Academy Slrs, in collaboration with Associazione Sementera ONLUS, offers a four weeks training on “ICT and students with special needs”

Associazione Sementera ONLUS is a non-profit association which is constituted by mental health patients, their families and 30 volunteers which are mental health operators (psychiatrists, psychologists, psychotherapists, art-therapists, social workers). Sementera cooperates with the local mental health services and it is associated with Universities and Health Centres.

It collaborates with other Italian Universities (Parma, Pisa) and is linked to the International Society for the Psychological and Social approach to the psychosis (ISPS), a network which combines the major international research centers involved in the integrated treatment of psychosis.

Sementera was founded in 1995 with the aim of researching innovative therapies to reduce the psychotic and autistic suffering and to enhance the patient’s wellbeing and his quality of life. Since the beginning of the nineties Sementera pioneered innovative researches on multi sensory integration therapies, applying arts therapies in the field of mental health. In the second half of the nineties Sementera investigated the therapeutic action of the audio-visual integration on the psychotic and autistic disturbances of the self. In 1998 the audio-visual integration was extended to include touch, giving an audio-visual-tactile integration. The last innovations developed by Sementera are in the field of new technologies applied to mental health and social integration.

The association places a strong emphasis on education, running many workshops and seminars aimed at training and continuing education of mental health operators (psychiatrists, psychologists, psychotherapists, art-therapists, social workers) and teachers.

Sementera has long experience in the use of non verbal communication techniques based on arts therapies and developed through original research. Over twenty years many videos and documentations of clinical applications have been collected and represent a useful background for educational projects.

The association’s activities in the training and continuing education of therapists are aimed at improving their knowledge and skills and moreover at enhancing their professional motivation.

This specific expertise of the association in innovative approaches of art therapies and new technologies proved useful to improve both the therapist's creativity and the therapeutical relationship with the patient. Teaching these methods to health care professionals proved also useful as burn-out prevention.

The key person involved in the project is Simone Donnari, art therapist, president of the Italian professional association of art therapists (APIArt). He developed an innovative video integration method applied to psychotic and autistic patients (paINTeraction Project) Educational Director of Art-Therapy School in Assisi, Italy, he regularly gives seminars, lectures and supervisory sessions in Mental Health Centres in Italy, the University of Perugia and New York University Steinhardt. He is the Italian representative in NEAT GROUP (european professional art therapists network with 28 countries represented http://neatgroup.org).

Since 2008 he gives courses with Continuing Education Credits for nurses, physicians, and other healthcare professionals.

Learning program: ICT and students with special needs
Tools.

The Tools are the result of years of therapeutic applications with different populations. Since 2005 Sementera choose ICT approaches with different kind of patients. Throughout failures and successes, by trial and error, the best practices were selected by the people with special needs themselves and then the Association found developers for customized applications.

- The main tool is the Painteraction system, a customized software based on video and audio feedback of movements (attachment n.1).
- Video art therapy (attachment n.2)
- 3D Drawing (attachment n.3)
- The puzzle of the Self (attachment n.4)

Learning sessions:

Practical sessions
Teachers and students will learn how to use the different methods by co-creating digital artistic contents.

Theoretical sessions
Starting from the theoretical background and the scientific knowledge on the different populations of people with special needs, the aim of every tool will be explained and illustrated to the teachers. The evaluation methods of tool efficacy performed by different research groups will be explained. Different applications of the same tools in different populations will be illustrated. Real life situations will be introduced through videos of sessions with subjects with special needs.

Supervising
After every experience and simulation there will be a space of supervising and sharing. A virtual environment will be created where teachers can continue the discussions about the tools also after the training course. Every practical sessions will be video recorded, thus giving the opportunity of being watched during supervising sessions. At the end of the course, there will be an evaluation of every student about the quality of attitude during the course, the results of the training and the level of learned skills.

Our aim would be to let the students understand the tools and their theoretical background. Moreover, we would like to let them work on how to choose the best tool for their students. According to our experience 4 weeks would be the best timing for a thorough training. A 2 weeks’ time presents important limitations.
The **PaINTeraction system** aims to create a highly innovative perceptual motor approach based on new technologies. It can have a relevant impact in the rehabilitation for children with autistic syndrome and ADHD, improving sensory motor-affective coordination.

PaINTeraction is also an artistic and learning journey that allows to create new images and enhance painting artworks through the sensorimotor interaction.

The original aspect of the paINTeraction project is the interactional model that is based on the use of interfaces that detect the observer’s movements, gestures and voice.

All these activities will happen without using a joystick, mouse or keyboard but only through body movements.

Through the application of modern technologies, the user can experiment sensorimotor interaction with images and sounds.

Patients and operators interact through this approach establishing a relationship.

The usage of this kind of tools does not need specific technological skills. In fact even a child can use it within few instants because the technology is easy and intuitive.

The Painteraction System, owned by Sementera and developed by International Software Companies, works on five different modes, one of which gives the possibility of drawing with the movements of the body and transforming the movements in sounds and colors.

PaINTERaction system is capable of recording kinetics and autonomics data that are stored in a “cloud” data base and sent to research groups that can use them for studies, validations, analyses.

**The project was presented at UN in 2015:**
Attachment n. 2

Videoart therapy.

Since 2001, Simone Donnari introduced a videocamera into art therapy group setting. Digital cameras allow the operator to edit and cut the video in real-time. The operator is one of the therapists. Digital cameras come with embedded software that offers the possibility of performing cross-fading and mixing of frames during shooting. Thus it became possible to make a video during the session and show it to the group immediately after. Real-time editing avoided post-production editing and made possible to watch the video after the session without any delay.

The video is used as a real feedback tool and not simply for recording and documentation of the group activity.

Attachment n. 3

3D Drawings
Drawing can become tridimensional using two techniques:

1. tablet + 3d printer, drawings and symbol will become tridimensional objects for further interactions and activities
2. 3D printing pen that allows you to draw in 3D by extruding heated plastic filament that cools almost instantly into a solid, stable structure.

Attachment n. 4

The puzzle of the Self
We have also developed a specific technique that we have called 'the puzzle of the self', in which hundreds of images and video frames created in different sessions are processed by software and then used to create a single 'puzzle' image of the face of the patient. The elaborated image represents the face of the patient made by small pieces. Each piece is a drawing or a video frame made during different sessions.

'Solving the puzzle' gives the patient an integrated image of the self which can be internalized as a safe and constant symbol. Our digital techniques are able to help the patient to start integrating all his experiences.
REFERENCES
