“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems” (DDSKILLS)

COURSE PLAN

DDSkills

EQF LEVEL 5
Main Project Details

<table>
<thead>
<tr>
<th>Programme</th>
<th>Erasmus+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Action</td>
<td>2: Cooperation for Innovation and the Exchange of Good Practices – Sector Skills Alliances</td>
</tr>
<tr>
<td>Project title</td>
<td>“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”</td>
</tr>
<tr>
<td>Project Acronym</td>
<td>DDSkills</td>
</tr>
<tr>
<td>Project Agreement Number</td>
<td>612655-EPP-1-2019-1-EL-EPPKA2-SSA</td>
</tr>
<tr>
<td>Start Date</td>
<td>01.01.2020</td>
</tr>
<tr>
<td>End Date</td>
<td>31.12.2022</td>
</tr>
</tbody>
</table>

Project Partners

![Project Partners Logos]

Co-funded by the Erasmus+ Programme of the European Union
Contents

“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems” (DDSKILLS) ......................................................... 1

COURSE PLAN ......................................................................................................................... 1

Main Project Details .................................................................................................................. 2

Project Partners .......................................................................................................................... 2

Introduction to the Course Plan ................................................................................................. 5

A Course Plan at EQF Level 5 ..................................................................................................... 7

The European Qualification Framework (EQF) ......................................................................... 7

EQF Level 5 ................................................................................................................................ 8

The Course Plan at a Glance: “Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems” ......................................................... 10

Units and Topics ......................................................................................................................... 10

Unit 1: New Technologies ......................................................................................................... 10

Unit 2: Self-advocacy, Technology Acceptance and Ethical Issues ..................................... 10

Unit 3: Social Networks’ Development ..................................................................................... 10

Unit 4: Therapeutic Role Playing ............................................................................................. 10

Training Methods: ....................................................................................................................... 11

Training Techniques: .................................................................................................................. 11

UNIT 1: New Technologies ......................................................................................................... 12

Aim: ............................................................................................................................................ 12

Learning Outcomes: ................................................................................................................... 12

In terms of knowledge: .............................................................................................................. 12

In terms of skills: ........................................................................................................................ 12

In terms of attitudes: .................................................................................................................... 13

Course Duration: ......................................................................................................................... 13

Course Workload: ....................................................................................................................... 13

Prerequisites for Participants: .................................................................................................... 14

List of Topics and Subtopics: .................................................................................................... 15

Topic 1: Assistive Technologies and Aids .................................................................................. 15

Topic 2: Smart Home .................................................................................................................. 16

Topic 3: Robotics in the Health and Social Care System .......................................................... 16

Topic 4: Green Information and Communications Technology (ICT) ................................... 17

Topic 5: Virtual Reality (VR) and Augmented Reality (AR) ..................................................... 17
UNIT 2: Self-advocacy, Technology Acceptance and Ethical Issues .................................................. 43

Aim: .............................................................................................................................................. 43
Learning Outcomes: ......................................................................................................................... 43
   In terms of knowledge: ..................................................................................................................... 43
   In terms of skills: ............................................................................................................................. 43
   In terms of attitudes: ......................................................................................................................... 43
Course Duration: ................................................................................................................................. 43
Course Workload: ................................................................................................................................. 43
Prerequisites for Participants: ............................................................................................................. 44
List of Topics and Subtopics: ............................................................................................................. 44
   What self-advocacy is........................................................................................................................ 44
   Self-awareness ................................................................................................................................ 44
   Communication ............................................................................................................................... 44
   Rights ............................................................................................................................................ 44
   Use of augmented reality in self-advocacy training......................................................................... 44
   Self-advocacy scenarios .................................................................................................................. 44
Reference List: .................................................................................................................................... 45
Suggested Bibliography and Other Resources List: ........................................................................ 45

UNIT 3: Social Networks Development ............................................................................................. 48

Aim: ................................................................................................................................................. 48
Learning Outcomes: ............................................................................................................................ 48
   In terms of knowledge: ....................................................................................................................... 48
   In terms of skills: ............................................................................................................................... 49
   In terms of attitudes: ......................................................................................................................... 49
Course Duration: .................................................................................................................................. 50
Course Workload: ............................................................................................................................... 50
Prerequisites for Participants: ............................................................................................................ 50
List of Topics and Subtopics: ............................................................................................................. 51
   Topic. E-Social Networks Friendly for PWD (person with disabilities). ........................................... 51
   Topic. The practical methods and tools to get involved to E-Social Networks................................. 51
   Topic. Safety and Etic on E-Social Networks. ................................................................................... 51
   Technological aids that could assist in conventional social networks ......................................... 51
Reference List: .................................................................................................................................... 53
Introduction to the Course Plan

Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems: State-of-the-art technologies (assistive technologies and aids, smart home, robotics, augmented and virtual reality, brain computer interfaces, and the necessity for green ICT) and their exploitation in the disability domain (self-advocacy, technology acceptance, and ethical issues, social networks’ development, and therapeutic role playing)

This course is structured in four Units aiming at providing new knowledge and skills to professionals supporting persons with disabilities and mental health problems.

The four focus areas are:

1. **New Technologies**: (Assistive Technology and Aids, Smart Home, Robotics, Augmented Reality; Virtual Reality, Brain Computer Interfaces and Green ICT);
2. **Self-Advocacy, Technology Acceptance and Ethical Issues**;
3. **Social Networks Development**; and
4. **Therapeutic Role Playing**.
The programme aims to accredit the participating professionals with an ISO 17024 certification upon completion of the course, given their successful attempt on a Final Assessment.

A professional can achieve the completion of the course following two learning pathways, as shown on the graphic below:

Through the DDSkills project, a Handbook will be developed, which will be used as a basis for both learning pathways. The Handbook will be developed to give a detailed analysis of the designated units and benefit the Health Care Professionals by enhancing their knowledge, skills and attitudes, irrespective of the pathway that they will choose to follow.

The study of the Handbook holds a self-directed approach, as professionals are requested to follow the Handbook individually. Simultaneously, they can follow the course using the first pathway, through classroom teaching (face-to-face learning) by a trainer, or by following the second pathway of online asynchronous learning, through a MOOC online webinar.

The Handbook and the material to be used in the face to face or online asynchronous learning will also be certified.
A Course Plan at EQF Level 5

The European Qualification Framework (EQF)

The European Qualification Framework (EQF) is an 8-level, learning outcomes-based common European reference framework for all types of qualifications that serves as a translation tool between different national qualifications frameworks, across different countries and systems. It was developed by the European Union in 2008 and revised in 2017 to help improve transparency, comparability and portability of people’s qualifications and make it possible to compare qualifications from different countries and institutions. “This supports cross-border mobility of learners and workers and promotes life-long learning and professional development across Europe”\(^1\).

As explained in the official Europass\(^2\) and Cedefop\(^3\) websites for EQF, the framework “covers all types and all levels of qualifications and its core is its eight reference levels, defined in terms of learning outcomes”. “The use of learning outcomes makes it clear what a person knows, understands and is able to do at the end of a learning process”, i.e. they are expressed in terms of knowledge, skills and autonomy-responsibility. The level increases according to the level of proficiency: level 1 is the lowest and 8 the highest level.

“The implementation of the EQF was based on the Recommendation on the Establishment of the European Qualifications Framework for Lifelong Learning\(^4\) adopted by the European Parliament and the Council on 23 April 2008. Reflecting the success in implementing the 2008 recommendation, a revised and strengthened Recommendation on the EQF\(^5\) was adopted on 22 May 2017 by the Education, Youth, Culture and Sport Council”\(^6\).

EU member states are recommended to “reference their national qualifications frameworks or systems to the EQF, in order to establish a clear and transparent relationship between their national qualification levels and the eight EQF levels”\(^7\). In addition to the EU Member States, another 11 countries\(^8\) work towards implementing the EQF. According to data by

---


\(^8\) Namely Iceland, Liechtenstein and Norway (European Economic Area countries), Albania, North Macedonia, Montenegro, Serbia and Turkey (candidate countries), Bosnia & Herzegovina, Kosovo (potential candidates) and Switzerland (data in Europass website: https://europa.eu/europass/en/european-qualifications-framework-eqf. (assessed October 26, 2020)).
Cedefop\(^9\), by April 2018, 35 countries\(^{10}\) had formally linked (“referenced”) their national qualifications frameworks to the EQF. “Each country wanting to relate its national qualifications’ levels to the EQF has to prepare a detailed referencing report that follows the 10 EQF referencing criteria agreed in Annex III to the revised EQF Recommendation. Once national frameworks are referenced to the EQF, all newly issued qualifications (e.g. certificates, diplomas, certificate supplements, diploma supplements), and/or qualifications databases should in principle contain a clear reference to the appropriate EQF and NQF level”\(^{11}\).

**EQF Level 5**

In the context of EQF learning outcomes, *knowledge* is described as theoretical and/or factual. *Skills* are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments). *Responsibility and autonomy* are described as the ability of the learner to apply knowledge and skills autonomously and with responsibility\(^{12}\).

*Based on EQF descriptors, EQF Level 5 could be defined as follows in terms of learning outcomes:*

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Skills</th>
<th>Responsibility and Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive, specialised, factual and theoretical knowledge within a</td>
<td>A comprehensive range of cognitive and practical skills required to develop creative</td>
<td>Exercise management and supervision in contexts of work or study activities where there</td>
</tr>
<tr>
<td>field of work or study and an awareness of the boundaries of that</td>
<td>solutions to abstract problems</td>
<td>is unpredictable change; review and develop performance of self and others</td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Level 5 qualifications* are at a level equivalent to intermediate higher education qualifications, such as diplomas of higher education, foundation and other degrees that do not typically provide access to postgraduate programmes. “Level 5 refers to the qualification awarded after successful completion of the so-called “short cycle” in the

---


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”

Qualifications Framework of the European Higher Education Area. The short cycle fits within or is linked to the first cycle (or Bachelor’s level, which typically includes 180-240 ECTS credits and corresponds to EQF Level 6). The degree (“associate degree”) requires approximately 120 ECTS credits.

---


The Course Plan at a Glance: “Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”

Units and Topics

Unit 1: New Technologies
Topic 1: Assistive Technologies and Aids
Topic 2: Smart Home
Topic 3: Robotics in the Health and Social Care System
Topic 4: Green ICT
Topic 5: Augmented and Virtual Reality [as indicated in the application].
Topic 6: Brain Computer Interfaces [as indicated in the application].

Unit 2: Self-advocacy, Technology Acceptance and Ethical Issues
Topic 1 What Self-advocacy is
Topic 2 Self-awareness
Topic 3 Communication
Topic 4 Rights
Topic 5 Use of augmented reality in self-advocacy training
Topic 6 Self-advocacy scenarios

Unit 3: Social Networks’ Development
Topic 1. E-Social Networks Friendly for PWD (person with disabilities).
Topic 2. The practical methods and tools to get involved to E-Social Networks.

Unit 4: Therapeutic Role Playing
Topic 1: Therapeutic Role Playing
Topic 2: Social skills, Life skills and the importance of Self-Regulation
Topic 3: Virtual and Augmented Reality. Ethical Challenges
Training Methods:

For Pathway 1:

**Blended Learning:**
- Self-directed Learning
- Face-to-face Learning

For Pathway 2:

**Blended Learning**
- Self-directed Learning
- Online Asynchronous Learning

Training Techniques:

For Pathway 1:
- Handbook
- Lecture
- Discussion/Q&A
- Case Study (individual/group)
- Practical Exercise (individual/group)
- Simulation
- Demonstration
- Educational Video
- VR Video

For Pathway 2:
- Handbook
- Online Webinar
- VR Video
UNIT 1: New Technologies

Aim:
The aim of the unit is to provide learners with background knowledge on new technologies in health and social care, specifically on the topics of assistive technologies, smart home, robotics and green information and communication technology as well as virtual and augmented reality and brain computer interface. This knowledge should enable learners to identify areas of application in their own working environment and support decision-making to best support clients and promote their participation.

Learning Outcomes:
After completing the course, the learner will be in a position to:

In terms of knowledge:
➢ explain the concept of the ICF via the ICF model
➢ contrast the terms “Assistive Technology” and “Assistive Product”
➢ tell the difference between low-tech, mid-tech and high-tech AT
➢ name specific solutions for vision, hearing, mobility, communication and cognitive impairments
➢ illustrate the possibilities of AAL applications name specific legal requirements of accessibility
➢ contrast accessible and universal design
➢ list factors that influence AT acceptance
➢ Recall legal basis of data protection
➢ explain the impact of participatory design on usability
➢ name main characteristics of smart home
➢ relate the term smart home to the concept of Ambient Assisted Living
➢ name smart home devices from different categories
➢ recall benefits and concerns of smart home
➢ label main ways of financing smart home devices
➢ name fields of robotic application in the health and social care sector
➢ summarize in which ways robotics can support caregivers
➢ recall robotic solutions for individuals with specific needs
➢ tell about the challenges of robotic implementation in private homes and institutions
➢ describe the architecture of Internet of Things (IoT) solutions
➢ recall the most common techniques applied to sensors to reduce their power consumption
➢ name the basic wireless communication protocols and the differences between them.
➢ Define and describe Virtual Reality
➢ Define and describe Augmented Reality
➢ Describe the skills that can be taught using AR and VR.
➢ Outline the advantages of using AR and VR when teaching persons with disabilities.
➢ Describe the main parts of a VR headset
➢ Describe the different AR/MR devices
➢ Explain the differences between VR, AR and Mixed Reality Applications (Types of interactions, limitations, etc).

In terms of skills:
➢ identify Assistive Technology for specific use cases on EASTIN
analyse the process of assistive product provision in their own country
utilize a programme to check a website for accessibility
apply guidelines of accessibility on their own web pages
develop how digital health applications and services influence the AT market
examine factors of AT acceptance for a specific use case
apply the MEESTAR as a method to discuss ethical values in specific situations
develop simplified explanations to explain the concept smart home to clients
identify possible smart home devices clients could benefit from
estimate the likelihood of financing a smart home device privately or publicly
discuss the use of smart home in one’s own profession
categorize robotic systems according to their usage
identify advantages and disadvantages in robotics for rehabilitation
identify ethical factors that are relevant when implementing robotics
analyse factors that influence the acceptance of robotic devices
analyse the power consumption of an IoT device based on its characteristics.
apply specific settings to an IoT device to consume less power.
identify when a device needs a gateway (e.g. mobile phone) to send data to a server.
Identify important considerations for persons with disabilities when using VR and AR.
Distinguish between VR and AR/MR Equipment
Setup VR equipment

In terms of attitudes:
evaluate the possibilities of AT provision for a person’s participation in society
discuss advantages and disadvantages for a specific AT device
estimate acceptance factors that could influence AT application in a given situation
evaluate ethical issues and legal requirements
develop an opinion on smart home according to one’s own profession
assess ethical concerns of smart home
assess legal concerns of smart home
evaluate specific robotic solutions for individual situations
estimate the current state of robotic solutions to support individuals and institutions
develop an opinion in which cases robotic devices should be implemented
Evaluate different IoT solutions and select the ‘greener’ ones of those addressing their needs
Critically appraise the use of VR, AR, and MR by persons with disabilities to learn important skills.
Compare the use of AR and VR to facilitate learning.
Run VR and AR/MR applications with beneficiaries effectively and evaluate their performance.
Manage and supervise other trainers in the use of VR and AR equipment and guide them
to the application of respective applications with the beneficiaries.

Course Duration:
40 hours

Course Workload:
120 hours
Prerequisites for Participants:

1. Practical experience in working with people in old age or with physical or intellectual disabilities
2. Theoretical knowledge on promoting activity and participation of people with disabilities and functional limitations
3. Interest in new digital and technical approaches
List of Topics and Subtopics:

**Topic 1: Assistive Technologies and Aids**

1.1 Introduction

1.2 Models and Concepts of Disability
   - 1.2.1 Models of Disability
   - 1.2.2 International Classification of Functioning, Disability and Health (ICF)

1.3 Assistive Technologies - Terminology and Information Sources
   - 1.3.1 Definitions
   - 1.3.2 The European Database EASTIN and Databases in the different Countries
   - 1.3.3 Exhibitions, Fairs and Living labs

1.4 Different Types of Assistive Technologies
   - 1.4.1 From low-tech to high-tech Assistive Technologies
   - 1.4.2 Further Classifications
   - 1.4.3 Assistive Products by Topic

1.5 Assistive Technologies for specific Impairments
   - 1.5.1 Blindness and Vision Impairment
   - 1.5.2 Deafness and Hearing Loss
   - 1.5.3 Mobility Impairment and Loss
   - 1.5.4 Speech, Language and Communication Disorders
   - 1.5.5 Intellectual Disabilities and Cognitive Decline

1.6 Provision of Assistive products
   - 1.6.1 General Provision Models
   - 1.6.2 Germany
   - 1.6.3 Italy

1.7 Ambient/Active Assisted Living (AAL)

1.8 Accessibility

1.9 Universal Design

1.10 Digital Health
   - 1.10.1 E-Health and M-Health
   - 1.10.2 Health apps
   - 1.10.3 Telemedicine, Tele monitoring, Telecare

1.11 Connection between the different concepts

1.12 Acceptance of Assistive Technologies
   - 1.12.1 The Technology Acceptance Model (TAM)
   - 1.12.2 The Unified Theory of Acceptance and Use of Technology (UTAUT)
   - 1.12.3 The Matching Person & Technology (MPT) Assessment Process

1.13 Ethical Aspects
   - 1.13.1 Ethical Principles
   - 1.13.2 Ethical Issues in Health Care Technologies
   - 1.13.3 The MEESTAR - a Model for the Ethical Evaluation of Socio-Technical Arrangements

1.14 Data protection in the EU

1.15 Usability and Participatory Design
1.16 Current and Future Developments

Topic 2: Smart Home

2.1 Introduction
2.2 Definitions
    2.2.1 Smart Home
    2.2.2 Internet of Things
2.3 Building Automation
2.4 Levels of ‘Smartness’
2.5 Smart Devices
2.6 Smart Home Technology and AAL
2.7 Smart devices in the AAL field
    2.7.1 Smart home devices for environmental control
    2.7.2 Healthcare-specific smart home devices
    2.7.3 Generations of smart devices: Example Telecare
    2.7.4 Control of smart home devices
2.8 Acquisition of Smart Home Devices
2.9 Benefits
2.10 Statistics on Smart Home
2.11 Ethical & legal Concerns
    2.11.1 Privacy
    2.11.2 Informed consent
    2.11.3 Autonomy
    2.11.4 Obstructiveness
    2.11.5 Equal Access
    2.11.6 Reduction in human contact
    2.11.7 Usability
    2.11.8 Legal concerns
2.12 Perspectives

Topic 3: Robotics in the Health and Social Care System

3.1 Introduction
3.2 Definitions
3.3 Fields of application for robotics in the health and social care sector
3.4 Robotics for rehabilitation
    3.4.1 Body-worn systems (Exoskeletons)
    3.4.2 Stationary and mobile training equipment
3.5 Robotics to support caregivers and other staff
    3.5.1 Logistics robots and transport systems
    3.5.2 Cleaning and disinfection
    3.5.3 Intelligent nursing aids
    3.5.4 Telepresence robots
    3.5.5 Emotional robots
3.6 Robotics for support at home
3.6.1 Communication and interaction robots
3.6.2 Mobility aids
3.6.3 Handling aids
3.6.4 Complex assistive robots

3.7 Robot acceptance
3.7.1 Acceptance of robots after practical experiments
3.7.2 Caregivers’ acceptance of robots

3.8 Ethical aspects in the application of robotic systems

3.9 Issues for robotic provision
3.9.1 Availability of robotic systems in the context of care
3.9.2 Implementation in people’s households and in institutions
3.9.3 Further challenges and barriers in implementing robotic systems

3.10 Perspectives

**Topic 4: Green Information and Communications Technology (ICT)**

4.1 Introduction
4.2 Internet of Things
4.2.1 End user IoT Architecture
4.2.2 Energy saving in Perception layer
4.2.3 Energy saving in transportation layer

4.3 Examples on the power consumption of different wearable devices.

4.4 Summary

**Topic 5: Virtual Reality (VR) and Augmented Reality (AR)**

5.1 Introduction to VR
5.2 Interactions that can take place in a VR environment
5.3 Applications of VR with individuals with DD and ID
5.4 Introduction to VR equipment
5.5 Safety/Considerations
5.6 Troubleshooting potential sensory challenges
5.7 Introduction to AR and mixed reality (MR)
5.8 Introduction to AR and MR equipment
5.9 Applications of AR with individuals with DD and ID
5.10 Advantages of using AR and VR
5.11 Considerations for using AR and VR

**Topic 6: Brain Computer Interface**

6.1 Brain-computer interface: definitions and principles
6.2 History
6.3 General Framework for brain computer interfaces
  6.3.1 INPUT: measurement of Brain signals for brain-computer interfaces
    6.3.1.1 Invasive brain computer interfaces
    6.3.1.2 Non-Invasive brain-computer interfaces
  6.3.2 Feature extraction
    6.3.2.1 Neurophysiological signals for non-invasive EEG-based BCIs
6.3.3 OUTPUT: Brain-computer interface applications
   6.3.3.1 Communication and environmental control
   6.3.3.2 Rehabilitation

6.4 Conclusion
Reference List:


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


World Health Organization (2020b). Blindness and vision impairment. Key facts. [https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment](https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment), Link checked: 22.01.21


Smart Home:


https://wirtschaftslexikon.gabler.de/definition/smart-devices-45081/version-268381, Link checked: 15.03.2021

https://doi.org/10.1016/S0020-7489(00)00111-5

https://doi.org/10.1016/j.techfore.2018.08.015

https://doi.org/10.1080/17483107.2017.1369589


https://doi.org/10.3390/s20154227

https://doi.org/10.1109/IMF.2015.17


Robotics:


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


Chu, Li; Chen, Hung-Wen; Cheng, Pei-Yi; Ho, Pokuan; Weng, I-Tan; Yang, Pei-Ling; Chien, Sung-En; Tu, Yun-Chen; Yang, Chien-Chun; Wang, Te-Mei; Fung, Helene H.; Yeh, Su-Ling (2019). Identifying Features that Enhance Older Adults' Acceptance of Robots: A Mixed Methods Study. Gerontology, 65(4), 441-450. https://doi.org/10.1159/000494881


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


Green ICT:


Augmented and Virtual Reality:


Brain-computer interface


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


Evaluating the Usability of BCI-Controlled Applications. *PLoS ONE*, 9(12), e112392. [https://doi.org/10.1371/journal.pone.0112392](https://doi.org/10.1371/journal.pone.0112392)


**Suggested Bibliography and Other Resources List:**


Chung, J., Demiris, G., & Thompson, H. J. (2016). Ethical considerations regarding the use of smart home technologies for older adults: an integrative review. *Annual review of nursing research, 34*(1), 155-181. [https://doi.org/10.1891/0739-6686.34.155](https://doi.org/10.1891/0739-6686.34.155)


UNIT 2: Self-advocacy, Technology Acceptance and Ethical Issues

Aim:
The aim of this Unit as well is to provide clear and useful information, i.e., knowledge, easily transferrable and applicable into everyday life of people working in the care and assistance of people with intellectual disabilities in order to help and assist them in their training in self-advocacy.

The final goal of the Unit is to provide not only theoretical background to SLOs and caregiver about self-advocacy but also provide them with suggestions and modalities to practically transmit these knowledge and information to the people they work with in order to give them the possibility to train their self-advocacy skills

Learning Outcomes:
After completing the course, the learner will be in a position to:

In terms of knowledge:
➢ Define self-advocacy
➢ Define the core components of self-advocacy
➢ List the main outcomes of self-advocacy
➢ Explain self-advocacy to people, including people with intellectual disabilities
➢ Illustrate the main components of self-advocacy to people, including people with intellectual disabilities
➢ List and compare technological resources useful to self-advocacy activities.

In terms of skills:
➢ Take part in self-advocacy initiatives
➢ Develop self-advocacy related activities
➢ Apply the knowledge acquired to particular contexts
➢ Identify realistic individual and group’s goals
➢ Choose some technological resources to be used in self-advocacy training

In terms of attitudes:
➢ Choose to be open to people with disabilities needs, wishes, expectations and hopes
➢ Develop awareness of the need to set realistic goals
➢ Support people with intellectual disabilities in their path towards self-determination
➢ Design self-advocacy activities and role-playing scenarios
➢ Assess the pros and cons of some technological resources in training

Course Duration:
20 hours

Course Workload:
60 hours
Prerequisites for Participants:
1. Experience in the field of care and assistance to people with disabilities
2. Able to read in English
3. Interested in enhancing the overall wellbeing of the assisted person not only in assistance
4. Interested in enhancing the relationship with the assisted person

List of Topics and Subtopics:

What self-advocacy is
1.1 Elements of self-advocacy
1.2 Self-advocacy skills development
1.3 A self-advocacy programme
1.4 Dimensions of self-advocacy
1.5 Self-advocacy outcomes

Self-awareness
2.1 Self-knowledge
2.2 Choice making, decision making and problem solving

Communication
3.1 Kinesics
3.2 Proxemics
3.3 Basic indications for interpersonal communication
3.4 Assertiveness
3.5 Negotiation

Rights
4.1 Rights and duties
4.2 Accessible information – Easy to read

Use of augmented reality in self-advocacy training

Self-advocacy scenarios
6.1 Travelling alone
6.2 In the supermarket
6.3 At school
6.4 At work
6.5 At hospital
Reference List:

Suggested Bibliography and Other Resources List:


“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”


UNIT 3: Social Networks Development

Aim:
A social network is a space that allows people with similar interests to come together and share information, common interests, needs, etc. Social networking and the ability to communicate is important skills we need in life. Almost everything we do, such as asking for food and drink, solving problems, expressing opinions, making friends, and having fun, is vital for everyone. A lot in our lives depends on our ability to communicate with each other and build and maintain social networks. Users of social networks voluntarily connect with each other to share something in common. Social networks can be face to face and online.

Social networking sites are popular online communication forms among people of different ages, professions, abilities, interests. Yet little is known about PWD’s activities on these sites and how their networks of “friends” relate to their other online and offline networks.

In this module, professionals working with PWD will learn how to enable and encourage PWD to use the E- social network.

Learning Outcomes:

In terms of knowledge:

Theoretical Knowledge on Social Networks:

➢ Define concept and principles of the Natural Social Networks.
➢ Interpret the Philosophy and Values of Social Networks.
➢ Set a goal for the development of social networks for PWD.
➢ Define the roles of the persons involved in Social Networks.
➢ Define the Liaisons and their Role in the Network.
➢ Interpret the concept of the Circle of Friends.
➢ Illustrate the procedures for the creation and maintenance of social networks.

Theoretical Knowledge on E-Social Networks:

➢ Infer how to adapt the existing E-communication tool to the needs of PWD (Person with disabilities)
➢ Know the methods and tools of how to teach the PWD to use E-communication tools.
➢ Compare the difference between digital and real social networks.

Factual Knowledge on Social Networks:

➢ To define the term “Social Network”.
➢ To support the person with disabilities on social networks.
➢ To help to maximize the Social Network of a PWD.
➢ To model the key roles of PWD involved in social networks are.
➢ To identify the benefits that persons with disabilities and their families reap from the existence of a social network.
➢ To adopt the techniques on how to help PWD to be involved in maintaining a Social Network.
“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”

Factual Knowledge on E-Social Networks:

➢ Interpret one-way digital social interaction.
➢ Know the key trends in how digital social relationships can reflect real social networks.
➢ Know the basic techniques to help PWD to enjoy digital social networking.
➢ To know and be able to use methods that help PWD maintain digital social connections.
➢ Be able to customize security measures for personal information of PWD.
➢ Compare appropriate and inappropriate actions in digital social networks (language, attitude, etc.).
➢ Infer benefits and threats of digital social networks.

In terms of skills:

Cognitive Skills on Social Networks: (involving the use of logical, intuitive and creative thinking)

➢ Discover the main rules of the Social Network.
➢ Distinguish the characteristics, needs, and wishes of persons with disabilities. The main strategies to help person with disabilities getting involved in social networks.

Cognitive Skills on E-Social Networks: (involving the use of logical, intuitive and creative thinking)

➢ Evaluate safety of each PWD on the Social Network.
➢ Analyse common traps.
➢ Categorize good and bad behaviour examples on the net.
➢ To help the PWD to defend the identity online.
➢ Develop criteria for the Etic in the net for each individual service user.
➢ To help the PWD to predict mobbing in the net.

Practical Skills on Social Networks: (involving manual dexterity and the use of methods, materials, tools and instruments)

➢ To help PWD to design social networks.
➢ To support the Social Network of PWD’s by employing the appropriate techniques.
➢ Solve any potential difficulties that possible to face while maintaining the Social Network supportive of people with disabilities.

Practical Skills on E-Social Networks: (involving manual dexterity and the use of methods, materials, tools, and instruments)

➢ Compose Step by step E2R guide/ animated movies for people with intellectual disabilities How to use existing social networks.
➢ Design E-games to get the skills.
➢ To help PWD to reduce his/her Social Isolation.

In terms of attitudes:

➢ Evaluate the needs, wishes, and abilities of people with disabilities.
➢ Plan procedures for the creation and maintenance of social networks.
➢ Compile a list with the actions that a Social Network member can take.
➢ Compile a list that contains the potential difficulties may encounter as proceed to the creation of a Social Network for persons with disabilities.
Course Duration:
1 day per topic.
Totally 4 topics – 4 training days.

Course Workload:
???

Prerequisites for Participants:
1. Participants- professionals directly working with PWD (people with disabilities).
2. The optimal result would be achieved if the participants were from different institutions. In this way, participants will better understand how important it is to know their users and their needs well.
3. Participants in the training are divided into groups.
4. Optimal size of the group 3-5 participants.
5. Optimal number of groups -5
6. Participants performing individual and group tasks during learning. This is how they will learn and discover the answers to an unresolved topic.
List of Topics and Subtopics:

**Topic. E-Social Networks Friendly for PWD (person with disabilities).**

1.1 Social network and E-social network. Differences and similarities

1.2 TYPES of E-social network:
   - 1.2.1 Friends e-network.
   - 1.2.2 Hobby e-network.
   - 1.2.3 Interests e-network.
   - 1.2.4 Learning e-network.
   - 1.2.5 Entrepreneurship e-network.
   - 1.2.6 Professional e-network.
   - 1.2.7 E-health network.
   - 1.2.8 Self-help groups.

1.3 ROLES in E-social Networks:
   - 1.3.1 Passive/invisible
   - 1.3.2 Active
   - 1.3.3 Neutral/observer
   - 1.3.4 Leader/Initiator
   - 1.3.5 Participant

1.4 INVOLVEMENT in E-network:
   - 1.4.1 pros and cons. How to get involved and how to get out.
   - 1.4.2 addiction

1.5 DURATION and SUSTAINABILITY of the E-network:
   - 1.5.1 Long term
   - 1.5.2 Short term

1.6 QUANTITY AND QUALITY of E-social network

**Topic. The practical methods and tools to get involved to E-Social Networks.**

2.1. Needs and abilities of PWD.
2.2. Step by step - Learning and Training.
2.3. Tips and Tricks how to connect with people.
2.4. Quality and quantity of information.
2.5. Data reliability.
2.6. The importance of accessibility and usability.

**Topic. Safety and Etic on E-Social Networks.**

3.1. Data protection.
3.2. Rights to privacy.
3.3. Common traps.
3.4. Morality in the NET.
3.5. Responsibilities on E.
3.6. Main legislation.
3.7. Roles of supporter.

Technological aids that could assist in conventional social networks.
4.1. Assistive technologies for People with Visual Impairment
4.2. Assistive technologies for People with Hearing Impairment
4.3. Assistive technologies for People with Motor Impairment
4.4. Assistive instructions easy to read and easy to understand.
4.6. Assistive technologies for safety protection.
Reference List:
https://ec.europa.eu/info/social-media-use_en
https://www.etsi.org/deliver/etsi_en/301500_301599/301549/01.01.01_60/en_301549v010101p.pdf
www.pjdc.lt
https://sdgs.un.org/2030agenda

Suggested Bibliography and Other Resources List:
Albert, B. (ed.): In or out of the mainstream? Lesson from research on disability and development cooperation. The Disability Press, Leeds (2006)


Eugenia Georgiades Bond University, Down the Rabbit Hole: Applying a Right to Be Forgotten to Personal Images Uploaded on Social Networks (2020),

Hyeon-Cheol Kim, and Zong-Yi Zhu Improving Social Inclusion for People with Physical Disabilities: The Roles of Mobile Social Networking Applications (MSNA) by Disability Support Organizations in China (2020)

Lingling Zhang, Beth Haller Consuming image: How mass media impact the identity of people with disabilities (2013)

Martyn Cooper Making online learning accessible to disabled students: an institutional case study (2016)


UNIT 4: Therapeutic Role Playing

Aim:
People have many roles in their lives every day. Communication and social interaction is a complex condition. Social and life skills are required that PWD either do not know or have the knowledge but is very difficult to use them properly. Therapeutic Role Playing has beneficial effects on educating and also on enhancing such skills. Technological advances and new assistive technologies can perform a major role in this direction. Augmented and Virtual reality apps and kits illustrate the new era of education in this field.

In this module, professionals working with PWD will learn how to educate PWD using Augmented and Virtual reality.

Learning Outcomes:
After completing the course, the learner will be in a position to:

In terms of knowledge:
➢ Define what role-playing is.
➢ Demonstrate the benefits of role-playing.
➢ Illustrate the guidelines in developing role-playing exercises.
➢ List examples of role-playing exercises.
➢ Name the techniques of role-playing.
➢ Illustrate the connection between role-playing and digital technology.
➢ Show the multi-media (applications, computer, etc.).
➢ Why technological devices are important for people with disabilities (PWD)?
➢ What kind of abilities is reinforced in association with technology?
➢ Classify the Knowledge in regard of new assistive technologies.
➢ What is Virtual and what Augmented Reality?
➢ Explain what “social skills” means and how important is for PWD.
➢ Demonstrate the “Current training methods” for social interaction skills.
➢ Illustrate the “Benefits of Virtual and Augmented Reality combined with physical manipulatives”.

In terms of skills:
➢ Build effective scenarios, case studies, and role plays.
➢ Identify what skills can be developed by using role-playing.
➢ Discover in which areas of social skills the PWD needs help.
➢ Select the best techniques of TRP (Therapeutic Role Playing) in order to educate the PWD.
➢ Organize the apps and toolkits of virtual and augmented reality that could be helpful for PWD.
➢ Examine the pros and cons of using virtual and augmented reality.

In terms of attitudes:
➢ Assess the benefits of Therapeutic Role Playing.
➢ Justify the effectiveness of Therapeutic Role Techniques.
➢ Combine activities in order to better educate a PWD.
➢ Deduct factors of real-life activities that could frustrate the PWD.
➢ Test which app or toolkit is appropriate for a number of difficulties.
➢ Combine different social skills in order to achieve the best result for PWD.
Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems

➢ Estimate the wishes, the abilities and the needs of people with disabilities.

Course Duration:
1 day per topic.
Totally 3 topics – 3 training days.

Course Workload:
Study 18 hours
Self-assessment question 30min
Activities 45 min per activity – 135min

Prerequisites for Participants:
1 Participants- professionals directly working with PWD (people with disabilities).
2 The optimal result would be achieved if the participants were from different institutions. In this way, participants will better understand how important it is to know their users and their needs well.
3 Participants in the training are divided into groups.
4 Optimal size of the group 3-5 participants.
5 Optimal number of groups -5
6 Participants perform individual and group tasks during learning. This is how they will learn and discover the answers to an unresolved topic.
List of Topics and Subtopics:

**Heading 1 (Topic 1): Therapeutic Role Playing (TRP)**

1.1: Introduction
1.2: Definition of Role Playing
1.3: Key Features of Role-Playing
   1.3.1: Advantages and Disadvantages of Role Playing
1.4: Therapeutic Role Playing
   1.4.1: Therapeutic Role-Playing Techniques
1.5: Play and Learning

**Heading 2 (Topic 2): Social skills, Life skills and the importance of Self-Regulation**

2.1: What Social skills are?
2.2: Why Social skills are important?
2.3: Life skills education
2.4: Definition and the importance of Self-Regulation
2.5: Persons with Disabilities and Mental Health Problems
   2.5.1: Autistic Spectrum Disorder and Intellectual Disabilities
   2.5.2: Social Stories
   2.5.3: From Social Stories to Video Modelling

**Heading 3 (Topic 3): Virtual Reality and Augmented Reality. Ethical Challenges**

3.1: Definitions
   3.1.1: Definition of Virtual Reality
   3.1.2: Definition of Augmented Reality
   3.1.3: The impact of Augmented Reality for Persons with ASD
3.2: The Advantages of Virtual and Augmented Reality for Persons with Disabilities
3.3: Life scenarios and applications of Virtual Reality (VR) and Augmented Reality (AR) to Persons with Disabilities
3.4: Ethical Challenges and issues on Virtual Reality (VR) and Augmented Reality (AR)
“Cutting-edge Digital Skills for Professional Care Givers of Persons with Disabilities and Mental Health Problems”

Reference List:


American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders (5th ed.).


Pugnetti, & A. Rizzo (Eds.), Proceedings of the 3rd International Conference on Disability, Virtual Reality and Associated Technologies (pp. 147-152). Reading, UK: University of Reading.


Suggested Bibliography and Other Resources List:


