

Module 3

Use of Virtual Reality in Vocational Education and Training, in particular with SEN students

Appendix 1 Checklist M3-1


Appendix 2 PowerPoint M3-2

Appendix 3 SEN Information Document M3-3

Appendix 4 Lesson Plan Template M3-4

M3-1 Appendix 1 Checklist



 Checklist for Student Suitability for use of VR Hardware / Software Irish Module	Y / N
Do you suffer from Claustrophobia?	
Do you suffer from Motion Sickness?	
Have you ever had a Panic Attack?	
Do you suffer from Migraines?	
Do you suffer from Nose Bleeds?	
Do you suffer from Hypertension?	

Do you have a Heart Condition?	
Do you suffer from Vertigo?	
Do you suffer from Ear infections?	
Do you have an Ear Implant or Magnetic Body Implant?	
Do you have Ear Grommets?	
Do you suffer with Back or any Other Mobility Issues?	
Do you have any Respiratory Conditions?	
Do you mind having your Eyes Covered?	
Are you sensitive to light?	
Are you nervous about working in groups?	

M3-2 Appendix 2 PowerPoint

[PowerPoint.pptx](#)

M3-3 Appendix 3 SEN Information Document

Mild general learning disabilities

Students with mild general learning disabilities have significantly below average general intellectual functioning. This is reflected in a slow rate of maturation reduced learning capacity and inadequate social adjustment. Mild general learning disability may also manifest itself in delayed conceptual development, difficulties in expressing ideas and feelings in words, unlimited ability to abstract and generalize what they learn, limited attention span and poor retention ability, slow speech and language development, and under-developed sense of spatial awareness. Students may have trouble with reading, writing and comprehension and have poor understanding of mathematical concepts. The student with a mild learning disability is likely to struggle with both the content and presentation of his or her work.

Attention deficit hyperactivity disorder or ADHD

The behavior of students with ADHD is characterized by poor sustained attention, impaired impulse control, an inability to delay gratification and excessive task irrelevant activity. Students may often fidget with their hands or feet, appear restless, leave their seat in the classroom or in other situations in which remaining seated is expected, may run about or climb excessively in situations where it is inappropriate, have difficulty playing or engaging in leisure activities quietly and they often talk excessively. Students with ADHD find it difficult to plan and control their behavior. They often seem unaware of danger and tend to rush into things. They also find listening to, remembering and following through on instructions difficult and failed to finish schoolwork. Students are often reluctant to engage in activities that require prolonged effort, easily distracted by extraneous stimuli and often have difficulty organizing materials required for participating in learning tasks. Students with ADHD have difficulty with sustained play and are often disliked by their peers because of their aggression, impulsiveness and inability to take responsibility for their actions.

Emotional disturbance and/ or behavioral problems

Characteristics and behaviors associated with emotional disturbance and or behavioral problems may include; Aggressive or antisocial behavior; inattentiveness; distractibility and impulsiveness; Impaired social interactions; a general inability to cope with the routine of daily tasks; obsessive and repetitive behaviors; Attention seeking behaviors such as negative interactions or a poor attitude towards work, peers or teachers and depressed behaviors such as withdrawal, anxiety and mood swings. Some students with emotional disturbance and or behavioral problems have negative self-concepts and low self-esteem. In the classroom, students may frequently off task and may adversely affect the learning of some others. Students may have problems working in groups and in forming relationships. Students may show aggression towards others or refuse to cooperate.

General Outline of Disabilities

Development coordination disorder DCD or dyspraxia

Students diagnosed with DCD find it exceptionally difficult to acquire the movement skills that are expected of them in everyday life and are often referred to as clumsy such students do not suffer from any known neurological condition and their difficulties are not explicable in terms of a generalized delay in development students may have difficulty coordinating their movements perceptions and thoughts. They exhibit difficulty with everyday tasks such as buttoning shirts and using a knife and fork and may confuse left and right.

Specific learning disabilities dyscalculia primarily affects the learning process in relation to mathematics. Two of the types of dyscalculia that have been identified are:

Type 1: Developmental dyscalculia where students exhibit a marked discrepancy between their developmental level and general cognitive ability as it pertains to mathematics as a basic indicator of developmental dyscalculia students will perform below expectations with no obvious explanation available.

Type 2: Dyscalculia where students exhibit a complete inability to manage mathematical concept and numbers it presents as an enduring condition that affects the ability to acquire mathematical skills despite appropriate teaching.

Dyslexia and dyscalculia may coexist but not all students with dyslexia will have difficulties in mathematics however dyslexia will affect all kinds of learning that depend on reading including mathematics.

Dyslexia

Dyslexia affects the learning process in relation to reading, writing and speaking, such difficulties being disproportionate to the students or their academic abilities dyslexia is indicated by a mismatch between an individual's assessed ability and his or her attainments in literacy related areas dyslexia may affect the development of the student's ability to remember in sequence what is seen or heard, his or her ability to identify sounds in words and his or her ability to put things in order it may affect concentration, coordination, letter stroke numeral formation skills and the speed of reading and understanding. In addition, students may have problems with directions, map reading, recognizing left and right, spelling, copying words and numbers from a book or blackboard, recalling the names of words or objects and reading music.

Physical disabilities / Cerebral palsy

Cerebral palsy is a term used to refer to a group of complicated conditions that affect movement and posture because of damage too or failure in the developmental part of the brain that controls movement this happens before birth, during birth or during early childhood before the brain's growth has reached a certain level of maturity. The condition itself does not normally change but individuals with cerebral palsy can become increasingly better at managing their difficulties that they get as they get older, generally speaking, cerebral palsy is characterized by involuntary jerking movements, a poor sense of balance, and speech impairment. Many forms of cerebral palsy are now recognized

Down Syndrome

Down syndrome is a genetic condition caused by the presence of an extra chromosome and difficulties can range from mild to profound. The student with Down Syndrome may have problems such as heart defects and respiratory problems and eye defects and may variously exhibit the following characteristics: auditory and visual impairments, delayed fine and gross motor skills, difficulties with thinking and reasoning and applying knowledge in new situations, limited concentration span, poor auditory memory, speech and language impairment and sequencing difficulties.

Autism Spectrum Disorders

Students with ASD's are described as sharing a triad of impairments that affects their ability to understand and use non-verbal and communication, understand social behaviour – which affects their ability to interact with other students and adults – and think and behave flexibly, which may be shown in restricted, obsessional or repetitive activities. Issues relating to sensory processes can also be present.

Aspergers Syndrome

Aspergers falls into the autism spectrum but has some distinct features of its own. Usually subtle impairments in three areas of development. These are social communication, social interaction, and social imagination. There is no language delay generally, but some can struggle with speech having a monotonous, or exaggerated tone and want to speak at great length about a topic irrespective of the reactions of the listener. Executive function, interpretation of social signals and interaction can be another difficult area.

M3-4 Appendix 4 Lesson Plan Document

IO2 - VETREALITY TRAINING PROGRAMME FOR VET TEACHERS AND TRAINERS

Template for module development

MODULE TITLE: *M3 How to use VR in VET, in particular with SEN students*

Module Leader: Cork ETB

SUMMARY

Duration: *6 hours: 3 lessons of 2 hours each*

Module Units

- 1.1 ... Selection of Students
- 1.2 ... Training of Trainers
- 1.3 ... Monitoring & Evaluation

Aim of the Module

- To achieve basic competency in Virtual Reality skills with regards to WBL in respect of further education and employment possibilities

Learning Outcomes

By the end of this Training Module participants will gain¹:

Knowledge:

Understanding the need for thorough assessment in selecting students for suitability for VR

- =Understanding the need in selecting students
 - =Assess suitability of devices for SEN students
-

Skills:

= *Teaching methods of Navigation through various software programmes*

-

Competencies:

= *To train teachers in training students to achieve the required knowledge using VR hardware and software effectively to achieve the educational goals of their module*

-

Teaching Methods

= *(E.g. Frontal lesson through the use of webinar)*

= *(E.g. Simulation exercises)*

= *(E.g. Experimentation of VR applications)*

= *(E.g. Practical demonstrations on the use of VR applications)*

= *(E.g. Small-group work to...)*

= ...

Teaching Materials

Please see the activities of the units.

Digital tools

= *(E.g. Overhead projector)*

= *(E.g. Vr hardware needed for the lesson / VR application needed for the lesson....)*

-

Assessment Methods/Tools

Please see Assessment section after each unit.

MODULE INTRODUCTION

(5-6 lines of introduction and background information)

UNIT 1.1

Title

Please copy this section to add additional units

Objectives

(Please list at least 3 objectives of this unit as bullet points)

Time

(E.g. 120 minutes)

Handouts/Activities *(Insert name of Activities' Sheet or PPT presentation² -if needed-)*

Brief description of the unit: (...)

ACTIVITY 1

Title

Please copy this section to add additional activities in this unit

Objectives

(Please list max. 3 objectives for this activity as bullet points)

Type of activity

(E.g. workshop in pairs)

Materials

(...)

Step-by step Instructions

(Please describe here step by step how you implement the activity)

Debriefing and evaluation of activity

(Please describe here how you will debrief this activity...)

ACTIVITY 2

Title

.....

ACTIVITY 3

Title

.....

UNIT ASSESSMENT

Assessment Tool/Method *(Please include here how you intend to assess the LO acquired through this Unit)*

Materials (...)

Step-by-step instructions

for assessment (...)
