IO2 - VETREALITY TRAINING PROGRAMME FOR VET TEACHERS AND TRAINERS

Project 2020-1-IT01-KA202-008380:

Virtual Reality based training to upskill VET Teachers and Trainers and foster inclusion of SEN Students in WBL

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

Partners

Co&So (Italy) - Project leaders

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Introduction

The VETREALITY project

The upskilling of VET Teachers and Trainers competences for fostering INCLUSION has been identified as a high policy priority by the EU in the Council Recommendation on promoting common values and inclusive education (EC Com2018/23), by the UN Committee on the Rights of Persons with Disabilities and by the UN AGENDA 2030 for Sustainable Development (Goals 4 and 8). Moreover, the 2018 EC Report "Education and Special Needs: policies and practices in education, training and employment for students with special needs in the EU" confirms that to integrate SEN students in Education and Training, there is a need to prepare Teachers and Trainers to use digital and innovative tools, such as the Virtual Learning Environments (VLE) as well as the Virtual Reality (VR).

In order to answer these challenges, the project consortium has developed the VETREALITY project, a KA2 strategic partnership project in the field of Vocational Education and Training funded by the Erasmus+ Programme of the European Union.

Partners are seven organisations from six EU countries which, through VETREALITY, work together to:

- foster innovative learning approaches and methodologies and provide digital skills for teaching and training
- increase technological competences on VR (virtual reality) applications and competences for facilitating SEN students' access to WBL (work-based learning)
- promote VR in the frame of mobility as a means to incentivise the participation of SEN (special education needs) students and assure equity and inclusion in all VET (vocational education and training) environments.

In the lifetime of the project (October 2020 - November 2022), the partnership develops the following three key results:

The VETREALITY e-Compendium for VET Teachers and Trainers for raising VET teachers' and trainers' awareness and knowledge on the best available VR applications to be used for facilitating the learning process of SEN students aimed at their smooth access to WBL.

The VETREALITY Training Programme for VET Teachers and Trainers, comprises of a 10-day training programme, elaborated in this publication, to provide the target group with knowledge, skills and competences needed for integrating VR technology into their own teaching and training methods aimed at supporting SEN students' access to WBL.

The VETREALITY Mobility Toolbox for VET Teachers and Trainers for promoting SEN students' involvement in transnational mobility, facilitating their integration thanks to VR technology and applications.

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The VETREALITY Training Programme for VET Teachers and Trainers

This Training Programme is the core product of the VETREALITY project. It provides VET teachers and trainers with the main basic knowledge and competences needed for integrating VR applications into their teaching with SEN students. Thus, VET teachers are supposed to have at least a general knowledge on how to use VR devices.

The proposed Programme lasts for 10 days:

- 6 days in class “Guided-Training” (6-8hrs/day)
- 4 days “Self-Learning”.

The “Guided Training” in class is structured as follows:

Day 1 - Virtual Reality: overview and state of the art of VR developments in education, its pros and cons

Day 2 - VR devices (glasses, tracking systems, navigation tools etc.): first exploration of the 3D-360° VR environment

Day 3 - Use of Virtual Reality in Vocational Education and Training, particularly with SEN students

Day 4 - 20 VR apps that might be relevant for WBL with SEN students ... and how to find more yourself!

Day 5 - How to foster WBL at the local level and EU mobility for SEN students using VR applications

Day 6 - Educational potential and the future of VR in workplaces

The participation at the VETREALITY Training Programme allows the achievement of the following Learning Outcomes:

- Know the benefit of VR applications for SEN students who struggle to remain focused in a classroom environment and strongly need to build experiences through work-based practices at local and EU/Mobility level.
- Know how VR technology support, through its 3D-360° immersive and interactive devices, VET teachers and trainers to work with SEN students.
- Understand how VR can be the basis for fostering experiential learning practices (WBL at local and EU/mobility level) addressed to SEN students.
- Be aware of the main learning potentials of VR when applied for facilitating SEN students’ access to WBL at local and EU/Mobility level.
- Understand how SEN students’ engagement in WBL could be increased through VR applications.
- Be aware of the 20 open-source VR applications recommended in IO1.
- Be able to use at least 10 out of the 20 recommended VR applications.
- Be competent in applying VR technology to one’s own classes with SEN students in the frame of WBL.
- Be competent, thanks to a cascade effect, in transferring to other VET staff (within own or other organisations) competences on VR applications for supporting SEN students’ access to WBL.

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SELF-LEARNING PATH

Once completed the “Guided-Training” path, learners will be able to use and apply VR technology within their classes and will enter the “Self-Learning” path of the VETREALITY Training Programme.

The aim of this part of the Programme, is to explore on their own some of the VR applications recommended in the first project product, the e-Compendium. After, participants will be able to look for new apps on the Internet or in the relevant store and to assess them and their usability with SEN students. The “Self-Learning” path is also supported by webinars in connection with each training day.

Inclusive approaches for SEN students in education

When we speak about inclusion in education, we mean the process of strengthening the capacity of the education system to reach out to all learners as a strategy to achieve education for all. Inclusion seeks to address the learning needs of all students, regardless of their abilities, disabilities, gender, socioeconomic status, psychosocial or health needs, with a specific focus on those who are vulnerable to marginalisation and exclusion.

This concept embraces the idea that all students should learn together, regardless of differences or disability.

We are moving from the previous model of integration to the new model of inclusion in education. In fact, while both approaches aim to bring students with disabilities into the mainstream classroom, the integration model expects students to adapt to the pre-existing structure, while the inclusion model ensures the existing education system adapts to each student.

What are the other main differences between the model of integration and the model of inclusion in education?

An integrated classroom is a setting where students with disabilities learn alongside peers without disabilities. Extra supports may be implemented to help them adapt to the regular curriculum, and sometimes separate special education programs are in place within the classroom or through extra services. On the other hand, inclusion is the actual merging of special education and regular education with the belief that all students are different, will learn differently, and should have full access to the same curriculum. Students with disabilities are not expected to adjust to a fixed education structure. Rather the structure is adjusted so that everyone’s learning styles can be met. Barriers to learning are removed to allow each student to participate fully in the curriculum and feel equally valued. The end result is that all students with and without disabilities benefit from this system because it responds to all pupils, acknowledging that any child could have additional support if needed[1].

[1] Retrieved from https://www.researchgate.net/publication/328031647_Integration_vs_Inclusion_in_Education_System consulted on the 12th of October 2021

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This principle is taken for granted in the VETREALITY Training Programme, which strives for inclusion of all students with special educational needs.

In fact, as already mentioned, the VETREALITY Training Programme aims at boosting the professional development of VET teachers and trainers, so that they can better use VR applications as a tool to increase the participation of SEN students to facilitate their inclusion within the classroom, the WBL and the mobility projects abroad.

This Programme aims also to prepare them on how to use VR with diverse groups of SEN students (e. g. with mental, intellectual, physical, cultural-linguistic, etc. needs) - especially when SEN students with different and combined needs are in the same class.

The type of VR app to be used, should be carefully assessed by VET teachers in accordance with their students' educational needs. For this reason, both in the VETREALITY e-Compendium and in the VETREALITY Training Programme, we don't refer to a specific group of SEN students, but we provide general information which teachers may apply according to their needs.

In general, the use of ICT in education allows the removal of many of the barriers faced by learners with special educational needs.

Furthermore, accessible ICT, have the potential to provide both to students with disabilities and to disadvantaged students, access to skills training and employment. In addition, the use of ICT can improve the teaching methodologies and the availability of the necessary teaching aids (such as VR and AR).

According to the VETREALITY e-Compendium for VET Teachers and Trainers, the use of ICT and of VR applications is especially useful for work placements preparation, for the implementation of dangerous activities like, for example, experiments and, largely, for activities that cannot be trained that easily in real life. It can be also useful to practice transversal skills, such as doing job interviews and expressing oneself, general behaviour in the world of work, technical and foreign language skills, cultural learning (e.g., for migrants etc.).

In addition, as stated in the VETREALITY e-Compendium, when it comes to targeted learning with special VET/WBL apps, one could consider whether the targeted composition of heterogeneous small groups does not reduce the training effort and increase learning success at the same time. Since we generally advise using VR in very small learner groups, we think that such an approach could be purposeful and would still guarantee comprehensive inclusive learning.

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Day 1

Virtual Reality: overview and state of the art of VR developments in education, its pros and cons

Module Leader: INSHEA, France

Duration: 6 hours: a 10-minute introduction (Unit 1.1) and 3 other sessions of varying length

SUMMARY

Module Units

1.1 Presentation of the spirit of the module Virtual Reality

1.2 Pictures in our heads

1.3 The REVE project

1.4 Read, conceptualize and redesign

Aim of the Module

- Raising awareness among VET trainers and teachers about reflexivity, self-analysis and about our self-representations of digital teaching
- Developing VET teachers and trainers' skills in terms of critical thinking on VR in formal education
- Developing VET teachers and trainers' skills about critical thinking on VR with special needs

Learning Outcomes

Knowledge:

- Identifying the interest and limitations of virtual reality tools in an inclusive education framework
- Developing teachers' consideration of the special needs of learners in an accessible design of educational or didactic projects integrating VR

Skills:

- To be able to put virtual reality objects into perspective in learning situations for students with special needs
- To be able to question established learning processes and to encourage teachers to be critical in the implementation of learning situations related to VR and the response to students' special needs.

Competencies:

- To be able to explain in their own words (clearly and precisely) the limitations surrounding ICT, digital teaching and VR
- To be able to think about an object, as VR, with an intercultural approach of representations

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Teaching Methods

- Frontal lesson
- Small-group work to develop reflexivity
- Reading scientific texts about VR in class with SEN students
- Practical demonstrations on the use of VR applications
- Producing texts or tags
- Active methods of choosing and explaining representative features or pictures about VR
- Interactive pedagogy and evaluation of knowledge
- Producing a Mind map after reading 2 texts

Teaching Materials

Please see the activities of the units.

Digital tools

- An overhead projector
- a connective computer
- internet access

Assessment Methods/Tools

Intra and inter individual evaluation.

MODULE INTRODUCTION

The aim of the module is to introduce Virtual Reality. Mobilising the representations of the participants, the activities offer a space to confront them to an overview of the art of VR developments in education. In order to identify the interest and limitations of virtual reality tools in an inclusive education framework, various studies and in-classroom cases are proposed as a basis for reflection.

UNIT 1.1 Presentation of the spirit of the module Virtual Reality

Objectives

- Introduction of the objectives of this module
- Presentation of the speakers
- Presentation of the course of the module

Time 10 minutes

Handouts/Activities N/A

Brief description of the unit:

This unit describes the module program, explains the chosen progression and introduces the activities. The trainer will use a PowerPoint Presentation.

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ACTIVITY 1 Virtual reality and empathy in immersion

Objectives

- Introduction of the objectives of this module
- Presentation of speakers
- Presentation of the course of the module

Type of activity Frontal lesson

Materials

- Computer, overhead projector
- Paper and pen
- Power point presentation M1_U1_Introduction_to-module1_overview of VR in education.pptx

Step-by step Instructions

- The activity consists of a frontal introduction to the module program.
- The trainer explains the chosen progression and introduces the activities with PowerPoint slides.

Debriefing and evaluation of activity No evaluation needed

UNIT ASSESSMENT

This unit will be assessed at the end of the day, together with all the others. Please see “Unit Assessment” section of Unit 1.4 for further instructions.

UNIT 1.2 Pictures in our heads

Objectives Work on one’s representations of VR by:

- discrimination
- introspection
- explication

To work on one's representations of VR by comparing with others in an intercultural setting

Time 1 hour and 30 minutes

Handouts/Activities **Activity 1**: Choosing is evoking. (40 min)

Activity 2: VR and intercultural representations. (50 min)

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Brief description of the unit:

This unit allows each participant to confront his or her own representation of VR by choosing and displaying pictures.

ACTIVITY 1 Choosing is evoking

Objectives

- Ice-Breaking
- Work on one's representations of the VR by:
  - discrimination
  - introspection
  - explication

Type of activity Active methods of choosing and explaining representative features of pictures about VR.

Materials Each participant prepares, in the form of 2 images (photo, screen copy...), his /her representation of virtual reality. They should choose images referring to a positive and negative representation of virtual reality. We will gather everyone's images and talk about them as an introduction to our common reflection.

Step-by step Instructions

- From a bank of images of their choice, the participants have 5 minutes to choose two pictures that most evoke VR.
- They deposit the 2 pictures on a collaborative slideshow, for instance: [https://docs.google.com/presentation/d/1gt9YjuS3bPqhGrPJBRmSb035_X9dprMPIvgs0qYVfzk/edit?usp=sharing].
- Then they explain their choice and tag it according to the criteria: positive or negative.

Debriefing and evaluation of activity

The debriefing consists in a confrontation of choices and their explanations. If possible, there will be a synthesis of the activity proposed by tags on collaborative slideshow.

ACTIVITY 2 VR and intercultural representations

Objectives Working on one's representations of VR using comparisons with others in an intercultural setting.

Type of activity Small-group work to develop reflexivity

Materials Here are three pictures issued from a previous focus-group. Those pictures are ambiguous about the criteria, that is to say about the positive or negative representation of VR.

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Step-by step Instructions

- 3 ambiguous pictures are presented on an online slideshow: https://docs.google.com/presentation/d/1gt9YjuS3bPqhGrPJBRmSb035_X9dprMPIvgs0qYVfzk/edit?usp=sharing .
- In groups of 2 or 3 participants, participants discuss whether they believe the representation of VR is positive or negative. They have the opportunity to compare their own representation with that of others.

Debriefing and evaluation of activity

The evaluation of this activity is based on the principle of self-evaluation.

UNIT ASSESSMENT

This unit will be assessed at the end of the day, together with all the others. Please see “Unit Assessment” section of Unit 1.4 for further instructions.

UNIT 1.3 The REVE project

Objectives

Work on:

- analysing the needs of a SEN student
- the development of empathy,
- pedagogical motivation
- reflective analysis of teachers/trainers from the use of VR

Time

1 hour

Handouts/Activities

Activity 1: Virtual reality and empathy in immersion. (20 min)

Activity 2: Explanations and main results of Reve. (20 min)

Activity 3: And if we dreamed. (20 min)

Brief description of the unit:

This unit handle how to help teachers understand the difficulties of students with invisible disabilities (“dys” disorders in particular) in order to better manage them and guarantee equal opportunities for these students. From the viewing of a video simulating a practical demonstration of the use of VR, participants will develop their reflexivity.

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ACTIVITY 1 Virtual reality and empathy in immersion

Objectives

Work on:

- analysing the needs of a SEN student
- the development of empathy,
- pedagogical motivation
- reflective analysis of teachers/trainers from the use of VR

Type of activity Practical demonstrations on the use of VR applications

Materials http://beanotherlab.org/2021/03/16/online-presentation-of-project-reve/ ; computer, headset, REVE application

Step-by step Instructions

Participants will be immersed, for a short time, in the daily school life of a dyslexic student thanks to an immersive virtual reality device in order to develop their empathy, to have an impact on their representations and to encourage them to train and/or look for resources to adapt their teaching methods. This immersion will be followed by a description of the work carried out in the framework of the Reve project

Debriefing and evaluation of activity

Short feedback is proposed at the end of the activity for each participant, his/her answer is saved in order to put it in comparison at the end of activity 2. On a sheet of paper, each person writes down what they remember and feel about the experience and then shares it with the group.

ACTIVITY 2 Explanations and main results of Reve

Objectives The participant checks the knowledge acquired during the previous activity.

Type of activity Interactive pedagogy and evaluation of knowledge

Materials A video of a presentation issued from a scientific article of the Rève project M1_U3_Video About Project REVE for INSHEA_EN.mp4 downloadable from the VETREALITY project website: Bertrand, P., Guegan, J., Robieux, L., McCall, C. A., & Zenasni, F. (2018). Learning empathy through virtual reality: multiple strategies for training empathy-related abilities using body ownership illusions in embodied virtual reality. Frontiers in Robotics and AI, 5, 26. https://www.frontiersin.org/articles/10.3389/frobt.2018.00026/full or M1_U3_article_LearningEmpathy through Virtual Reality [Bertrand&al2018] (1) -1.pdf

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Step-by step Instructions

The series of questions asked to the participants allows them to progressively apprehend the interest - or not - of VR according to pedagogical situations of increasing complexity. Individual preparations of the answers and feedback in a full group meeting.

- What is the interest of using VR to work on empathy?
- What does placing oneself in the shoes of a dyslexic student add to a textbook or a guide or an article?
- Are there other situations of disability or special needs that could benefit from simulation in order to remove the usual obstacles in workshops and companies? If so, which ones? (e.g. https://www.reseau-canope.fr/vis-ma-vue/)

Debriefing and evaluation of activity

The same short feedback is proposed at the end of the activity for each participant, his/her answer is saved in order to put it in comparison at the end of activity 1.

ACTIVITY 3 And if we dreamed

Objectives The participant checks the knowledge acquired during the previous activity.

Type of activity Interactive pedagogy and evaluation of knowledge

Materials Table filled in together with advantages and disadvantages using the project listing:

- What were the challenges/obstacles?
- What worked well, what not?
- What recommendations can you give to other implementing such Focus Group sessions in future.

Trainers / facilitators take notes “live” with participants’ feedback, separating their notes into 2 columns: one for advantages and the other for disadvantages.

Step-by step Instructions

The series of questions asked to the participants allows them to progressively apprehend the interest - or not - of VR according to pedagogical situations of increasing complexity. As a reminder, the questions are: What were the challenges/obstacles? What worked well, what not? What recommendations can you give to other implementing such Focus Group sessions in future.

Debriefing and evaluation of activity

Each question is accompanied by a reasoned answer that allows the participant to evaluate the acquisition of knowledge related to VR and its educational use in an inclusive society.

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UNIT ASSESSMENT

This unit will be assessed at the end of the day, together with all the others. Please see “Unit Assessment” section of Unit 1.4 for further instructions.

UNIT 1.4 Read, conceptualize and redesign

Objectives

- Putting virtual reality objects into perspective in learning situations for students with special needs.
- Developing the field of possible pedagogical practices in the use of VR for students with special educational needs.

Time 2 hours

Handouts/Activities **Activity 1**: Augmented Reality as Technology to Improve Academic Achievement in Students with and without Special Educational Needs (40 min)

Activity 2: MindMap. (1 hour and 20 min)

Brief description of the unit:

Based on reading texts leading to the construction of a mindmap, this unit invites participants to put virtual reality objects into perspective in learning situations for students with special needs. To be able to think about an object, as VR, with an intercultural approach of representations.

ACTIVITY 1 Augmented Reality as Technology to Improve Academic Achievement in Students with and without Special Educational Needs

Objectives Putting virtual reality objects into perspective in learning situations for students with special needs

Type of activity Reading scientific texts about VR in classroom with SEN students during a Chemistry or Mathematics lesson

Materials Badilla-Quintana, M. G., Sepulveda-Valenzuela, E., & Salazar Arias, M. (2020). Augmented Reality as a Sustainable Technology to Improve Academic Achievement in Students with and without Special Educational Needs. *Sustainability*, *12*(19), 8116. MDPI AG. Retrieved from

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http://dx.doi.org/10.3390/su12198116 https://www.mdpi.com/2071-1050/12/19/8116/htm

Cascales-Martínez, A., Martínez-Segura, M.-J., Pérez-López, D., & Contero, M. (2017). Using an Augmented Reality Enhanced Tabletop System to Promote Learning of Mathematics: A Case Study with Students with Special Educational Needs. Eurasia Journal of Mathematics, Science and Technology Education, 13(2), 355-380. https://doi.org/10.12973/eurasia.2017.00621a or M1_U4_article1_MindMap_AugmentedReality_Sciences_SEN[Badilla-Qintana&al2020]-1.pdf and M1_U4_article2_MindMap_AugmentedReality_Mathematics_SEN[Cascales-Martinez&al2017].pdf downloadable from VETREALITY project website

NODA application and VR goggles and computer [or a collaborative application of 2D MindMap] Possibility to create Mindmaps online with a free tool https://www.mindmaps.app/ or to create the map with pencil and paper.

Step-by step Instructions

The participants in each group have to read the text online on the website of the review or they could upload and print the pdf. Each subgroup proposes their own mind map of one of the two texts they have chosen.

Debriefing and evaluation of activity

This activity will be debriefed at the end of the second one.

ACTIVITY 2 MindMap

Objectives

To have a critical reflection about virtual reality objects in learning situations for students with special needs based on scientific evidence.

Type of activity

Producing a Mind map after reading 2 texts in a 3D conception tool or in a 2D tool of conception.

Materials

NODA application and VR casks [or a collaborative application of 2D MindMap] Possibility to create Mindmaps online with a free tool https://www.mindmaps.app/ or to create the map with pencil and paper.

Step-by step Instructions

The two subgroups meet and work together to develop a global mind map.

Debriefing and evaluation of activity

To think about the transferability of these activities in their professional practices.

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UNIT ASSESSMENT

Assessment Tool/Method

Individual keywords participate in the generation of an online collaborative tag cloud.

Materials

- https://arbredemutualisation.inshea.fr/vetreality/

Step-by-step instructions

Each participant has to give three key words associated with what he or she could put in their forthcoming professional adventure with VR or ICT. Each participant writes the keywords on a sheet of paper and one of the trainers / facilitators generates a word cloud on an online application during the session. The facilitator of the session will put the individual keywords in the application in order to generate the online collaborative tag cloud.

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Day 2

VR devices (glasses, tracking systems, navigation tools, etc): first exploration of the 3D-360°VR environment

Module Leader: TILI, Basque Country (Es)

SUMMARY

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

Module Units

2.1 Basic VR knowledge

2.2 VR Glasses and Tracking Systems

2.3 VR Navigation tools and software

Aim of the Module

- Raise awareness among VET trainers of VR Glasses, Tracking Systems and Navigation tools available.
- Develop VET teachers' skills about VR Glasses, Tracking Systems and Navigation tools available.
- Be up-to-date concerning existing VR Glasses, Tracking Systems and Navigation tools available, in particular to promote WBL for SEN students

Learning Outcomes

Knowledge:

- Have a basic knowledge of some VR hardware available on the market
- Have a basic understanding of how to use different Tracking Systems used in VR.

Skills:

- Develop the necessary skills to learn the principal navigation tools and software used in V.R.

Competencies:

- Be competent in applying VR technology at own classes with SEN students in the frame of WBL

Teaching Methods

- Frontal lesson using webinar
- Practical examples
- Online teaching proposals
- Experimentation of VR applications
- Practical demonstrations on the use of VR applications

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Teaching Materials

Please see the activities of the units.

Digital tools

- Overhead projector
- PC
- VR Hardware

Assessment Methods/Tools

Please see the Assessment section after each unit.

MODULE INTRODUCTION

The main objective of this module is to make an introduction of basic knowledge of Virtual Reality. In addition, it will try to increase the interest of the participants in this field as the first step on the way of its use in education. For this, different activities will be carried out, which are divided into different modules. Through them, participants will learn how to use the different types of glasses, navigation tools and tracking systems in order to have a first touch of the 3D-360º VR environment.

UNIT 2.1 Basic VR knowledge

Objectives

- Pooling general information about VR
- Obtain a general view of VR
- First immersion in VR

Time 2 hours

Handouts/Activities

Activity 1: How Augmented Reality Will Change Education. (25 min)

Activity 2: What do we know about VR? (30 min)

Activity 3: VR article analysis and discussion. (30 min)

Activity 4: Master class: Basics of VR knowledge. (20 min)

Unit assessment: Kahoot evaluation. (15 min)

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Brief description of the unit:

The goal of this unit is to develop a general view of VR. The participants will read, exchange and discuss the actual state of the art of VR tools and their impact in education. They will also experience a first exploration of the 3D-360° VR environment.

ACTIVITY 1 How Augmented Reality Will Change Education

Objectives

- Carry out a first immersion in VR and AR
- Increase the interest on VR and AR
- Sensitize participants about the importance of VR and AR in education

Type of activity Exploration activity

Materials

- Computer, projector
- Paper sheets and pen
- Board

Step-by step Instructions

- In order to begin to sensitize participants to the usefulness of augmented reality (AR) in education, they will watch the following "Ted Talk" video https://www.youtube.com/watch?v=5AjxGqzqQ54 (10 min). Before watching this video, the trainer / facilitator can ask the participants if they think that the use of VR and AR can facilitate learning, with the objective of increasing their interest in this topic.
- The objective is to show that AR is not a simple game, but a tool that could be used to deal with the world's biggest problem. In this way, the video confirms that this can be the next great platform for education, making greater learning and communication easier.
- After watching the video, the trainer will allow 5 minutes in which each participant can reflect and write down in a notebook the ideas that they found interesting.
- Finally, there will be a moment of sharing where each participant can share with the others what they think is relevant. In this activity, an attempt should be made to promote the participation of all those present, since being the first activity, it can be a good opportunity to begin to create a climate of trust and confidence.
- While people share their ideas, it could be useful to write all this information on the board so that they remain visible during the following activities of the day.

Debriefing and evaluation of activity

This activity will not be evaluated. This activity does not have an evaluative objective, it is a way to begin to increase the interest of the participants on this topic.

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ACTIVITY 2 What do we know about VR?

Objectives

- Carry out a first immersion in VR
- Create awareness about the knowledge participants have about VR

Type of activity Workshop in groups of 4

Materials Paper sheets and pen

Step-by step Instructions

The use of open questions is a good tool to start reflecting and being aware of the knowledge we have on a subject. Knowing this, this activity begins with the following open question: What do we know about VR? After asking this question, the trainer will follow the next steps:

- Each participant will have time to write on a piece of paper what comes to their mind after hearing that question. In this first step, they will be able to write down what they know about VR or about the beliefs that they have around VR.
- Once each participant has finished writing their ideas about the proposed question, the trainer will organise the participants in pairs so that they can share the written ideas. After telling each other their own ideas, they will have time to write the main conclusions they have gotten together.
- Having written the conclusions in pairs, participants will get together with another group of two participants in order to explain between themselves the ideas they have highlighted. Among them, they will reach an agreement on the most important conclusion they have reached, writing them in another piece of paper.
- When all the groups have finished this, each group will present the main ideas and conclusions in front of the other participants while the others listen carefully.
- While the moment of sharing is taking place, the trainer will write the main ideas on the board so everyone will have a general idea about what is the general knowledge about VR in the group.
- Finally, participants will watch the following short video that shows general information about VR, including information on the definition and examples of VR, AR and types of VR devices: https://www.youtube.com/watch?v=vz0UUVDt2ps&abchannel=GCFLearnFree.org

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

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ACTIVITY 3 VR article analysis and discussion

Objectives

- Increase interest in Virtual Reality
- Increase knowledge about Virtual Reality

Type of activity Workshop in groups of 4

Materials ARTICLES:

- Virtual reality:
  - https://www.explainthatstuff.com/virtualreality.html
- Virtual reality augmented reality and mixed reality **I**:
  - https://www.forbes.com/sites/quora/2018/02/02/the-difference-between-virtual-reality-augmented-reality-and-mixed-reality/?sh=618fb0b52d07
- Virtual reality augmented reality and mixed reality **II**:
  - https://varjo.com/virtual-augmented-and-mixed-reality-explained/
- Virtual reality and Education:
  - https://xd.adobe.com/ideas/principles/emerging-technology/virtual-reality-will-change-learn-teach/

Step-by step Instructions

First of all, the trainer / facilitator will explain to the participants that they will be divided into groups of 4 people. Each group will have to analyse one article about virtual reality. (These articles are described in the material section)

- First, each participant will have time to read the article individually and highlight the most important or representative paragraphs or phrases of the article.
- Once each participant has individually highlighted his or her important phrases, the trainer will allow time for each group member to present what they have done to the rest of the participants. The other participants will listen in a thoughtful manner and will contribute with their point of view.
- Among the four participants, they will reach an agreement on the most important points they have discovered in the article.
- After all the groups finish analysing the article, the trainer will facilitate a discussion summary.
- Each group will choose a representative who will present the main ideas of the article to the rest of the participants.

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In turn, the trainer will write down these ideas, summarising on the whiteboard.

- Then, the representatives of the second group will present their ideas, and the trainer will continue to write them on the whiteboard.
  The activity will continue until all the groups express their ideas.
- To conclude the activity, the trainer will read the ideas that have been written on the whiteboard and allow a few minutes for personal reflection.

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

ACTIVITY 4 Master class: Basics of VR knowledge

Objectives

- Obtain a general idea of the basic concepts of virtual reality (VR).
- Develop personal opinions about the VR concept.

Type of activity Frontal lesson

Materials

PPT presentation M2_U1_Basic VR knowledge (1).pptx
Internet connection, computer, projector, sheet of papers and pens.

Step-by step Instructions

Using the PPT presentation the trainer will provide participants with background information about basics of VR knowledge.

Participants will get an overview of the differences between virtual reality (VR), augmented reality (AR) and mixed reality (MR); the contribution that each of these technologies can bring to society and how they can be used individually or together to improve people's life.

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

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UNIT ASSESSMENT

Assessment Tool/Method

Structured questionnaire (Kahoot) about the topic of Unit 2.1 to assess whether knowledge was acquired, solve possible doubts, and collect suggestions to improve the implementation of Unit 2.1.

Materials Projector, smartphone or computer, internet connections and the questionnaire (Kahoot Unit 2.1)

Step-by-step instructions

- The trainer will ask participants to log in to the kahoot website. (Kahoot website)
- Then, the trainer will enter in the questionnaire link (Kahoot Unit 2.1), project it to the participants and ask them to enter the PIN to access the game on the kahoot page they had previously logged in.
- As the questions are answered, the trainer will comment on the answers and ask the participants to raise any doubts they may have.
- At the end of the kahoot, the trainer will ask the participants if they have any questions about any other part of the unit and if there were any, he/she will solve them.

UNIT 2.2 VR Glasses and Tracking systems

Objectives

- General information about VR Glasses and Tracking systems
- General overview about VR Glasses available on the market
- General overview about VR Tracking systems available on the market

Time 2 hours

Handouts/Activities

- **Activity 1**: Exploration of different devices via online. (40 min)
  Activity 2: Master Class concerning the VR Glasses and Tracking systems available on the market. (35 min)
- **Activity 3**: Identification of the pros and cons of different devices. (30 min)
- **Unit assessment**: Kahoot Evaluation. (15 min)

Brief description of the unit

This unit will help the participants to get familiar with the principal VR glasses and Tracking systems available in the market. In order to do that they will have a master class, as well as some exploration experiences that will be performed via online. In addition, they will be able to identify the pros and cons of different VR devices.

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ACTIVITY 1 Exploration of different devices via online

Objectives

The objective of this activity is that the participants, taking advantage of the internet, can distinguish between different types of virtual reality devices available on the market. This simple activity will allow participants to have a more global vision of the different VR devices and make them think about how they can be integrated into education.

Type of activity

Participatory exploration of different VR devices available on the market via online

Materials

- Laptop or computers
- internet connections and different websites that are listed in the step-by step instructions section.

Step-by step Instructions

- First, the participants will be divided into groups of between three and four people
- Then, the trainer will provide different links so that the participants can analyse different virtual reality glasses
- Each of the groups will analyse a different webpage.
- For this activity we have chosen the virtual reality glasses manufactured by the most popular companies in the sector.
    - HTCVIVE: https://www.vive.com/eu/?utm_source=htc&utm_medium=htccom&utm_content=htccom_menu_link&utm_campaign=default_try_vive
    - Oculus: https://www.oculus.com/
    - Valve Index: https://www.valvesoftware.com/es/index
    - Google Cardboard: https://arvr.google.com/cardboard/
    - Samsung gear VR: https://www.samsung.com/es/business/wearables/gear-vr-r323/sm-r323nbkaphe/
- Around 20 minutes will be allowed for each group to analyse the available products, collect notes and collect ideas (pros and cons etc.)
- After this, each group will explain to the rest of the groups which glasses they were most interested in, in order to be able to use them on students with special needs.

During this activity, it is very important that the participants take into account the availability of the product (price), the ease of handling, the number of apps or software compatible with the product, etc.

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

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ACTIVITY 2 Master class concerning the VR Glasses and Tracking systems available in the market

Objectives Gathering knowledge about VR Glasses and Tracking systems available in the market.

Type of activity Master class

Materials

- Projector,
- Computer
- PPT presentation M2_U2_VR Glasses and Tracking Systems (1).pptx

Step-by step Instructions

- In the master class, it will be summarized which are the virtual reality glasses as well as the tracking systems most used nowadays.
- With the activity that has been done previously, the participants will already have a general idea about the types of glasses and tracking systems available on the market. With this theoretical class, it is intended to organise and reinforce the knowledge acquired in the previous section.
- Again in this step, it is very important to take into account not only the quality of the glasses and the tracking systems, but also their price and usefulness in education.

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

ACTIVITY 3 Identification of the pros and cons of different devices

Objectives Identification of the pros and cons of different VR Glasses and Tracking systems available on the market.

Type of activity Workshop in groups of 4. (30 minutes)

Materials

- Computer
- Theoretical information provided earlier
- Paper sheets and pen

Step-by step Instructions

- After working on the theoretical material provided in the previous activity, It is assumed that during this activity participants already have a knowledge of the material that is available in the market.

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- Now the trainer will emphasise the advantages and disadvantages of the use of different glasses and tracking systems in students with special needs (the use of the internet will be necessary during this step).
- In order to do that, half of the group will write on a piece of paper a summary about the pros of different devices mentioned and the other half will write about the cons of the devices mentioned.
- Once all the information has been compiled, the conclusions drawn will be contrasted in groups of four
- Finally, the whole group will complete a single chart with the pros and cons identified clearly.

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

UNIT ASSESSMENT

Kahoot evaluation (15 min)

Assessment Tool/Method

Structured questionnaire (Kahoot) about the topic of Unit 2.2 to assess whether the knowledge was acquired, solve possible doubts, and collect suggestions to improve the implementation of this unit.

Materials

- Projector
- computer
- internet connection
- Kahoot questionnaire
- smartphones.

Step-by-step instructions

- The trainer will ask participants to log in to the Kahoot website (Kahoot website)
- Then, the trainer enters in the questionnaire link and projects it to the participants and asks them to enter the PIN to access the game on the kahoot page they had previously logged in.
- As the questions are answered, the trainer will comment on the answers and ask the participants to raise any doubts they may have.
- At the end of the kahoot, the trainer will ask the participants if they have any questions about any other part of the unit and if there were any, he / she will solve them.

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UNIT 2.3 Navigation tools and software

Objectives

- General information navigation tools and software
- General overview about VR software and software platforms available on the market
- General overview about navigation tools available on the market

Time 2 hours

Handouts/Activities

Activity 1: Master Class concerning the navigation tools and software available in the market. (20 min)

Activity 2: Exploration of different software appropriate for education. (30 min)

Activity 3: First contact with VR. (50 min)

Unit assessment: Kahoot Evaluation. (20 min)

ACTIVITY 1 Master Class concerning the navigation tools and software available in the market

Objectives Gathering knowledge about the navigation systems and software available on the market.

Type of activity Master Class.

Materials

- Projector,
- Computer,
- Internet connection,
- PPT presentation M2_U3_VR Navigation tools and software (1).pptx

Step-by step Instructions

The objective of this theoretical presentation is that the participants learn to differentiate the different VR navigation tools and software used.
They will learn the different ways to navigate in virtual reality; Physical navigation, virtual navigation and teleportation. And the objective is to analyse which of these can be applied in a better way to educate students with special needs.
The most common software developers will also be seen; STEAM, Oculus, Viveport…

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

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ACTIVITY 2 Exploration of different software applications appropriate for education

Objectives

- Explore different software applications appropriate for education.
- Identify the main aspects about them.
- Identify the challenges and opportunities they could provide for SEN students.
- Reflect how VET teachers and trainers could use them in class.

Type of activity Workshop in groups of 4 about the different software applications

Materials

- Computer
- Webpages named afterwards

Step-by step Instructions

- The trainer will take 5 minutes to explain the activity to the participants.
- The participants will be divided into groups of 4.
- The trainer, before starting the activity, will set clear rules:
    - **The focus should be on quantity.** A good thought shower will generate many ideas; the more the better.
      The thinking behind this is that quantity naturally breeds quality.
      The more ideas there are, the bigger the chance of an effective solution.
    - **Criticism is not allowed.** People taking part should be free to speak their mind.
      There should be no judgment from others as this can inhibit lateral thinking and could even prevent some team members from participating.
      Unusual ideas welcomed.
- The trainer will indicate the website on which they can observe the different software applications.
- Each group will analyse all the webpages and they will choose an application they think is appropriate for educational purposes.
    - Oculus: https://www.oculus.com/experiences/quest/
    - Vive port: https://www.viveport.com/
    - SteamVR: https://store.steampowered.com/app/250820/SteamVR/?l=spanish

    - They will have 20 minutes to carry out the analysis.
    - At the end each group will explain to the rest of the groups what they have found and why they think their applications are useful for education and how they would integrate it in class.
    - At this point the groups will be more realistic.
    - Altogether, they are going to filter the ideas that could work in class, with SEN students.
    - Participants will then carry out a group reflection about the ideas and analysis made previously.

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Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

ACTIVITY 3 First contact with VR

Objectives First immersion in VR

Type of activity Workshop in groups of 4

Materials

- Internet connection,
- computer
- VR equipment: VR hardware and software/apps

Step-by step Instructions

- After the previous analysis made in activity 2, each group will find 1-2 free VR software that can be useful to support SEN students in class (5 min).
- They will download the apps and try them, just to familiarise with the program, to experiment the way they could use them, etc. (20 min).
- At the end they will need to reflect about the experience, think about how the software could be used, when, what considerations need to be taken into account, the positive and negative aspects about them, etc. (10 min).

Debriefing and evaluation of activity

This activity will not be evaluated in this step. The evaluation of the activity will be developed in the Unit Assessment through a specific evaluation system.

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UNIT ASSESSMENT

Kahoot evaluation (15 min)

Assessment Tool/Method

Structured questionnaire (Kahoot) about the topic of Unit 2.3 to assess whether the knowledge was acquired, solve possible doubts, and collect suggestions to improve the implementation of this unit.

Materials

- Projector
- Computer
- Internet Connection
- Kahoot Questionnaire
- Smartphones.

Step-by-step instructions

- The trainer will ask participants to log in to the kahoot website. (Kahoot website)
- Then, the trainer enters in the questionnaire link and projects it to the participants and asks them to enter the PIN to access the game on the kahoot page they had previously logged in.
- As the questions are answered, the trainer will comment on the answers and ask the participants to raise any doubts they may have.
- At the end of the kahoot, the trainer will ask the participants if they have any questions about any other part of the module and if there were any, he / she will solve them.

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Day 3

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

Module Leader: CETB, Ireland

SUMMARY

Duration: 8 hours: 2 lessons of 2 hours and 1 lesson of 4 hours

Module Units

3.1 Selection of Students

3.2 Empowering teachers to use VR with students according to their learning styles

3.3 Monitoring & Evaluation

Aim of the Module

- To give teachers the skills needed to identify students who would benefit from the use of VR and situations where this might assist students to engage in work based learning (WBL).
- To achieve basic competency for teachers and trainers in Virtual Reality skills, specifically in respect of Vocational Training so that these skills may be passed on to their students.
- To provide a suitable framework for teachers, to allow them to deliver and evaluate learning using VR

Learning Outcomes

Knowledge:

- Have an understanding of the importance of selecting suitable students for the module.
- Have an understanding of the need to assess the students' suitability for working with VR.
- Assess suitability of devices for SEN students.
- Empower teachers to use VR with students, in accordance with the students individual learning styles.

Skills:

- Develop skills in student selection, skills covered will include; health and safety, side effects of VR use and matching equipment types to suitable students.
- Teachers will have the necessary skills to use VR in their own environment.

Competencies:

To enhance the teachers' competencies in applying VR selection and use for SEN students within the framework of WBL.

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Teaching Methods

- Practical teacher demonstrations of hardware / software
- Interactive group discussion regarding; introduction of VR / hardware & software and its use in education and work based environments via webinars.
- PC / laptop based demonstration of examples to show teachers best practice in VR. (Education & Workplace)
- Evaluation through discussion and written based recording of success/challenges associated with VR equipment and educational use.

Teaching Materials / Resources

Please see the activities within the units.

Digital tools

- Laptop/PC
- Digital projector/Digital whiteboard with interactive group remote control
- VR Goggles and suitable hardware
- Go-Pro360

Assessment Methods/Tools

- Thought shower activity - evidence of learning.
- Discussion/interactive engagement.
- On-going monitoring of teacher engagement with VR hardware.
- Informal assessment Q & A listening to teacher feedback.
- Preparation of a lesson plan
- Google Forms

MODULE INTRODUCTION

The objective of the module is to assist in the selection of students' suitability for VR learning based on appropriate criteria. It aims to achieve basic competency in virtual reality skills so that the teacher is competent in devising a lesson plan for their students with regard to WBL. In respect of further education and employment opportunities, particular emphasis is placed on SEN students. This module also promotes on-going best practice in health and safety, evaluation and guidelines to teach VR to SEN students.

UNIT 3.1 Selection of students

Objectives

- To identify students for whom VR is most beneficial.
- To identify students for whom VR would be unsuitable.
- To identify the limitations of VR.

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Time 2 hours

Handouts/Activities

Activity 1: View visual explanation of virtual reality on laptop by teacher showing a YouTube clip. (20 min)

Activity 2: Teachers' discussion and analysis. (1H)

Activity 3: Development of a checklist as a suitable resource in teaching VR to SEN students. (40 min)

Brief description of the unit:

The goal of this unit is to assess the suitability and limitations of VR applications to student learning, in particular the emphasis on SEN students with reference to WBL.

ACTIVITY 1 View visual explanation of virtual reality on laptop by teacher showing a Youtube clip

Objectives

- To explain what Virtual Reality is in SEN education.
- To present an overview through dialogical engagement.
- To introduce the criteria required to create for a checklist for use in teaching VR to SEN students.

Type of activity Workshop in groups of 4.

Materials

- Laptop / digital projector
- paper sheets and pens.

Step-by step Instructions

- The topic is introduced to the participating VET teachers and trainers.
- The background to the clip is explained.
- Watch and discuss: https://youtu.be/pruy0JZRJY4 (2mins)

Debriefing and evaluation of activity

Questions will be asked to ascertain what teachers understood from the digital methodology and questions answered.

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ACTIVITY 2 Teachers discussion and analysis

Objectives

- Teachers will be able to list the advantages and disadvantages of using VR in a classroom.
- Teachers will be able to identify students for whom VR would be unsuitable/suitable.

Type of activity Workshop to include placemat activity which will incorporate think/pair/share techniques.

Materials

- Tables and chairs set out suitable for discussion.
- A3 sheets of paper and whiteboard markers per table.
- Sticky notes and pens.

Step-by step Instructions

- The teachers will be divided into groups.
- Each group will be given a topic to discuss.
- They will write their observations individually and then share with their group.
- Then a class discussion will be facilitated.

The topics are but not limited to:

- Group 1 What would you think are the advantages of using VR in a classroom?
- Group 2 What are the disadvantages of using this methodology in the Classroom?
- Group 3 What are the implications of using VR?

Debriefing and evaluation of activity

Interactive feedback session using placemats/flipchart/stick notes followed by Q&A session.

ACTIVITY 3 Development of a checklist as a suitable resource in teaching VR to SEN students

Objectives

- Teachers will be able to assess the suitability of using VR with SEN students through a checklist.
- This will be done through discussion and feedback.
- Teachers will have the tools for continuous assessment of the suitability in using VR for SEN settings.
- A collaborative checklist will be devised.

Type of activity The checklist will be presented to the teachers.

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Materials Checklist, in the M3_Appendix.doc file downloadable from the VETREALITY project website is presented on a whiteboard projected from laptop.

Step-by step Instructions

- The checklist is presented on screen.
- Each question is explained to the teachers.
- The selection of questions is explained.
- How to use the checklist is explained.
- The teachers are given the opportunity to add to the checklist new items.

Debriefing and evaluation of activity

Feedback from teachers will be encouraged through a Q&A session. The checklist is a live document which can be modified depending on the scenario.

UNIT ASSESSMENT

Kahoot evaluation (15 min)

Assessment Tool/Method Structured questionnaire (Kahoot) about the topic of Unit 3.1 to assess whether knowledge was acquired

Materials

- Projector,
- smartphone or computer,
- internet connections
- Kahoot questionnaire

Step-by-step instructions

- The trainer will ask participants to log in to the kahoot website. (Kahoot website)
- Then, the trainer will enter in the questionnaire link, project it to the participants and ask them to enter the PIN to access the game on the kahoot page they had previously logged in.
- As the questions are answered, the trainer will comment on the answers and ask the participants to raise any doubts they may have.
- At the end of the kahoot, the trainer will ask the participants if they have any questions about any other part of the unit and if there were any, he/she will solve them.

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UNIT 3.2 Empowering teachers to use VR with regards to student's learning styles

Objectives

- To understand the learning styles of students and matching these styles to VR applications.
- Training teachers on how to use VR effectively.
- Teachers will be able to identify risks associated with VR.
- Teachers will be able to manage a range of implications associated with VR.

Time 2 hours

Handouts/Activities

Activity 1: YouTube presentation. (20 min)

Activity 2: Learning styles PowerPoint. (30 min)

Activity 3: Matching SEN students to suitable hardware devices. (1H and 10 min)

Brief description of the unit:

This unit will provide participants skills on how to assess the WBL suitability of VR applications to be used with SEN students.

ACTIVITY 1 YouTube Presentation

Objectives To train teachers how to use VR effectively.

Type of activity Video Presentation (7.18 mins).

Materials Computer and screen.

Step-by step Instructions

- The trainer introduces the topic to the teachers.
- Then the trainer explains the background to the clip.
- Participants watch the video and then discuss: https://youtu.be/n87yaF37QEc

Debriefing and evaluation of activity

Teachers will be asked for their feedback from the clip and a discussion will follow.

ACTIVITY 2 Learning Styles PowerPoint

Objectives To understand different learning styles and how they map to VR applications.

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Type of activity Masterclass on learning styles.

Materials Projector and laptop.

Step-by-step Instructions A masterclass on learning styles will be delivered through PowerPoint presentation M3__U2_PowerPoint.pptx

The class will explore the type of learners that will be in their class and develop an understanding of the learning styles that will match the students to VR application. This will be done by going through the PowerPoint and engaging the VET teachers and trainers in reflective practice.

Debriefing and evaluation of activity

A Q&A session will follow to debrief the activity.

ACTIVITY 3 Matching SEN students to suitable hardware devices

Objectives

- Assess suitability of devices for SEN students.
- The contraindications of using VR in the classroom will be explored in order to match VR headwear with SEN students.

Type of activity Show and tell.

Materials Laptop, screen and goggles.

Step-by-step Instructions

- The different apparatus that are available, e. g. straps, weights, gloves, etc. will be explored to ensure best practice for all students.
- Discussion of personal experiences of using VR headwear and a discussion on what VR use would be appropriate for specific students.

Debriefing and evaluation of activity

Shared reflections from the group through discussion.

UNIT ASSESSMENT

Kahoot evaluation

Assessment Tool/Method Structured questionnaire (Kahoot) about the topic of Unit 3.1 to assess whether knowledge was acquired

Materials

- Projector,
- smartphone or computer,
- internet connections,
- Kahoot questionnaire

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Step-by-step instructions

- The trainer will ask participants to log in to the kahoot website. (Kahoot website)
- Then, the trainer will enter in the questionnaire link, project it to the participants and ask them to enter the PIN to access the game on the kahoot page they had previously logged in.
- As the questions are answered, the trainer will comment on the answers and ask the participants to raise any doubts they may have.
- At the end of the kahoot, the trainer will ask the participants if they have any questions about any other part of the unit and if there were any, he/she will solve them.

Unit 3.3 Monitoring and Evaluation

Objectives	To achieve competency in the use of VR in the classroom by guiding students in the safe use of VR and fostering ongoing best practice.
Time	4 hours
Handouts/Activities	**Activity 1**: Observation Session. (20 min) **Activity 2**: Focus Group Discussion on health and safety. (40 min) **Activity 3**: Self-directed learning with VR headset. (1hour)

Brief description of the unit

The importance of monitoring and evaluating VR is an ongoing evolving process which requires continuous appraisal.

ACTIVITY 1 Observation session

Objectives	Participants need to be conscious of safety considerations in the ongoing use of VR.
Type of activity	Face to face experiential engagement with VR environment
Materials	VR Goggles and software casting cable, iPad/computer and whiteboard.

Step-by step Instructions

- A volunteer is chosen to immerse themselves in VR while their experience is casted to the whiteboard. This allows for group interaction and engagement with the experience.
- The experience of VR is guided by verbal direction. Questions are posed regarding sensory/emotional and physical responses to their own personal

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experience in VR. Instructions are given regarding safety navigation around possible obstacles.

- Questions asked include but not limited to:
  How are you feeling? (senses/emotionally/physically, directions on physical boundaries will also be addressed)
- The volunteer will immerse themselves for a **maximum** of 20 mins. and should be followed by an appropriate movement break.

Debriefing and evaluation of activity

Classroom discussion on the volunteer's experience, reflections noted on the whiteboard.

ACTIVITY 2 Focus Group Discussion on health and safety

Objectives To ensure the safe delivery of the teaching of VR.

Type of activity Small focus groups of participants.

Materials Table and chairs, A3 paper and pens.

Step-by step Instructions Placemat activity done with pen and paper incorporating think/pair/share where limitations to VR. and the safety considerations with VR use will be explored.

Debriefing and evaluation of activity

All completed placemats of A3 are displayed and VET teachers have the opportunity to share their experiences through a whole group discussion.

ACTIVITY 3 Self-directed learning with VR headset

Objectives The teachers become confident in using VR

Type of activity Focus group discussion. Forms questionnaire.

Materials Table and chairs, interactive whiteboard.

Step-by step Instructions Discussion and feedback from all teachers.

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Debriefing and evaluation of activity

The VET teachers are confident in their own ability to use VR and all questions are answered to their satisfaction. Trainer asks the teachers if they have any other questions or if they are in need of any further clarification. This is done through Q&A.

A link to a questionnaire on Forms is given to the group. The teachers are given the link and time to answer the questions on the Form questionnaire on their laptop. The results are further discussed.

Feedback on Forms link

UNIT ASSESSMENT

Assessment Tool/Method Devising a lesson plan (1hour 20 min)

Materials Pen and paper.

Step-by-step instructions

- The trainer divides the group into 3 focus groups of 4 participants each.
- Each group is given a different student scenario.
  - Group 1: Students with a general learning disability (Dyslexia/dyscalculia)
  - Group 2: Students on the autism spectrum
  - Group 3: Students with dyspraxia

- Each group produces a lesson plan.
- Teachers devise a lesson plan on the instruction of VR in WBL with particular emphasis for inclusion of SEN students with a focus on peer to peer teaching experience of SEN students in their own environment.
- Instructions on devising a lesson plan will be given as a template and supplementary information on SEN students will also be available
  - SEN information document can be found in M3_Appendix.doc downloadable from VETREALITY project website
  - Lesson plan template.
- All lesson plans will be completed onsite and shared between the group.

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Day 4

20 VR apps that might be relevant for WBL with SEN students ... and how to find more yourself!

Module Leader: Auxilium, Austria

SUMMARY

Duration: 8 hours: 1 lesson of 3 hours and 1 lesson of 5 hours

Module Units

4.1 How do I know when a VR app is suitable for my teaching - and especially when it is not!
4.2 Best Practice App – or crap?

Aim of the Module

- Raising awareness among teachers about the criteria that make an app useful and usable in the classroom.
- Communication of indicators according to which the criteria can be determined
- To provide basic knowledge about the selected 20 best practice apps.
- Empowerment of teachers to select apps according to their own needs and quality standards and to evaluate them with regard to their relevance for WBL with SEN students.

Learning Outcomes

Knowledge:
- To learn about relevant assessment criteria and indicators of VR apps in terms of their applicability in WBL, especially with regard to SEN students
- To get familiar with 20 open-source VR applications recommended in IO1 and their relevance for WBL and/or SEN students
-

Skills:
- To be able to use at least 1 to 2 out of the 20 recommended VR applications on operative level (navigation, finding and using all features etc.)
- To be able to verify recommendations given with regards to own quality standards in WBL and/or needs of SEN students
- To be able to define own quality indicators for the WBL use of VR apps and embed them in a holistic training model for SEN students

Competencies:
- To get competent in assessing whether and which apps are useful and useful in WBL and/or the teaching of SEN students.

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Teaching Methods

- Frontal teaching by using PPTs and webinar
- Group works
- Discussions
- (Joint) Mapping and ranking (of indicators)
- Analysis of information/data (e.g., recommendations given in the E-Compendium)
- Hands-on application of VR apps (individually or in small groups)
- Applying assessment tools

Teaching Materials

Please see the activities of the units.

Digital tools

- VR hardware
- VR apps suitable for hardware selected
- If needed: beamer/PCs/smartphones (to be able to follow the navigation of the apps together)

Assessment Methods/Tools

Please see Assessment section after each unit.

MODULE INTRODUCTION

If a VET teacher / trainer wants to work successfully with immersive technologies in the classroom, he / she must learn to understand that VR apps do not have a value in themselves, but - like all methods and tools - must always be understood as an interplay of several criteria. As there are now a large number of apps available, it is important for the teacher to know about the advantages and disadvantages, opportunities and risks of their use in teaching in general and in WBL with SEN students in particular. Teachers need to develop an awareness of this - and they need some technology and tools to support them.

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UNIT 4.1 How do I know when VR is suitable for my teaching - and especially when it is not?

Objectives

- To understand that applying VR in training and education asks for certain frameworks and a lot of preparation work
- Analysing the recommendations given in the E-Compendium to identify and define situation- and target group-related criteria and indicators
- Weighting of indicators and derivations for own VR teaching

Time: 3 hours

Handouts/Activities

Activity 1: In-depth analysis of recommendations given in the E-Compendium and relevant to be considered before introducing VR apps in WBL with SEN students and linking with own requirements and needs in VR teaching. (2 hours)

Activity 2: Set-up of an own mind-map structuring/clustering relevant frameworks, stakeholder and criteria for own VR teaching. (1hour)

Brief description of the unit:

Using VR in the classroom is not an easy undertaking. It requires extensive organisational preparation, a high level of motivation and innovation from many different stakeholders (teachers, learners, management of the educational institution, possibly parental consent, etc.), a basic supply of high-speed internet, appropriate investment in hardware and perhaps even software, extensive prior knowledge of technical and operational handling, a targeted selection of apps and the pedagogical skills and abilities to use them in the classroom - and worst of all: this list makes no claim to be exhaustive! In order to sensitise teachers to this - without scaring them off! - have them work in teams or small groups to identify criteria relevant to your VR lessons and provide them with indicators. Afterwards, the results can be presented and discussed in plenary and compared with a proposal from the project.

ACTIVITY 1 – In-depth analysis of recommendations given in the E-Compendium and relevant to be considered before introducing VR apps in WBL with SEN students and linking them with own frameworks and needs in VR

Objectives

- Read and analyse the recommendations given in the E-Compendium and apply them for own situation and needs
- Understand that although there are generally valid criteria, in the end everything has to be tailored very precisely to the target group.
- Increase the competence to identify obstacles and develop solutions.

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Type of activity Presentations, clustering/mind-mapping, comparative analysis, discussion

Materials PPT VETReality_M4_U1_VR_Usability.pptx

- Whiteboard,
- flipchart,
- pc/beamer (one of these)

Step-by step Instructions

The trainer follows slide 4-17 of PPT *VETREALITY_M4_U1*:

- Either individually, in pairs, in groups or in plenary, go through the individual recommendations and note on the right-hand side of each slide/sheet whether and to what extent each recommendation is relevant to the individual's teaching and how it should be applied. (If the format on the right side of each slide/sheet needs to be revised, the participants can do this by modifying *VETREALITY_M4_U2_A1_form*).
- Discussion and reflection: Compare and discuss the results of your analysis of the recommendations and how/why they are relevant to you or not.
- Participants can also set up and define own criteria and how to apply them for their VR teaching.

Debriefing and evaluation of activity:

Formative informal evaluation working results and contributions to discussions

ACTIVITY 2 – Set-up of an own mind-map structuring/clustering relevant frameworks, stakeholder and criteria for own VR teaching

Objectives See objectives of Activity 1 of this unit

Type of activity Presentations, clustering/mind-mapping, comparative analysis, discussion

Materials

- PPT *VETReality_M4_U1_VR_Usability.pptx*
- A free mind-map tool
- Whiteboard, flipchart, pc/beamer (one of these)

Step-by step Instructions

The trainer follows slide 18-20 of PPT *VETREALITY_M4_U1*:

- In pairs or small groups, partners should try to indicate all criteria and indicators relevant for VR teaching they can think of (either on flip-chart or pc/beamer); the trainer collects all findings and develops in an overall “live” mind-map. (For this, one of the many for-free mind-map tools available in the internet should be used;

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before starting with this first task, do not show mind-map on slide 20 to the participants)

- Discussion and reflection: After the group has developed an own mind-map, participants should compare results with the one provided on slide 20 (which is mainly based on the results of research work and interviews with experts and stakeholders in the Europe-wide study of the project). Some useful questions the trainer may ask are:
- What similarities and what differences do you find? Are you surprised by them? Which criteria and indicators do you find useful? Which do not? Which ones do you think are still missing? To what extent do you believe that you or your institution is currently prepared and equipped to actually use VR? What still needs to be done to enable the smoothest and most meaningful use of VR?

Debriefing and evaluation of activity:

Formative informal evaluation working results and contributions to discussions.

UNIT ASSESSMENT

We find it very difficult to evaluate the knowledge transfer and competence building within the framework of this unit in a standardised way and to give quantitative and qualitative specifications. Rather, the learning effects result from the quality of the contributions, discussions, the evaluation sheets produced and the intensive practical testing of the apps.

UNIT 4.2 Best practice app – or crap?

Objectives

- Get an overview of the 20 best-practice apps proposed by the project group
- Understand that apps become outdated very quickly and that there are revised and expanded versions
- Criteria-based selection of 10 apps that are most suitable for your own lessons
- Evaluation of at least 3 apps based on a catalogue of criteria
- Comparing the assessment of the project group with the results of the self-evaluation of the apps
- Drawing concrete conclusions for own teaching and testing at least 1 app

Time: 5 hours

Handouts/Activities

Activity 1: Meet the 20 best practice apps – and put up to 10 on a short-list. (1 hour and 30 min)

Activity 2: Best app or crap? From 10 to 3. (3 hours)

Activity 3: Find your own best practice app. (1 hour and 30 min)

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Brief description of the unit:

The VETREALITY project group screened over 100 VR learning apps and selected those 20 that seem to have the highest relevance for WBL with SEN students. On the one hand, this preliminary work is very helpful for anyone considering the use of VR in the classroom. On the other hand, there are still a lot of open questions in this context: e.g., the apps were neither selected for a certain sector nor level of education, nor has the type of "special needs" that the students have been defined. This ensures a very inclusive access, but might lead to shortcomings in terms of applicability, relevance and target group orientation. In addition, the field of immersive technologies is extremely dynamic, which means that the apps quickly become outdated or there are revised and extended versions of them. Therefore, the participants not only need to know which best-practice apps the partnership has selected, but they also need to learn to assess whether and to what extent they can be used in their own teaching. Finally, the participants should also be able to find new apps on the internet and analyse their usability and suitability for their own lessons and their own target group. Since the combinations of educational level, professional topics and special needs of students are almost unlimited, good analytical skills of the trainer are of great importance. Therefore, the evaluation formats are designed in such a way that they can be applied not only to the 20 pre-selected apps, but also to completely new ones. This allows the VET teachers and trainers to work independently of the selection of the project and to search for new and innovative apps themselves and integrate them into the lessons.

ACTIVITY 1 – Meet the 20 best practice apps – and put up to 10 on a short-list

Objectives

- To get an overview of the 20 best-practice apps proposed by the project group
- To select up to 10 apps that are most suitable for your own lessons

Type of activity Presentation/study of best practice apps

Materials Handouts, pc/beamer

PPT presentation VETReality_M4_U2_VR_Apps.pptx

Step-by step Instructions

VETREALITY_M4_U2 (slide 4-26): Participants study the overview of the selected best practice apps in detail (see also E-Compendium p39ff.). This can be done by several ways:

a) Participants can go through the list individually or in pairs/small groups.

b) The list can be presented by the trainer in plenary and discussed by all together.

c) The apps are divided among the participants; they familiarise themselves with the apps (e.g., as homework) and then present them to the plenary.

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- Depending on which method is chosen, the amount of work for the trainer and the participants changes (but this is not difficult to estimate). In our opinion, variant c) seems to be the most effective and sustainable, although the most time-consuming.
- No matter which option is chosen, at the end each participant should have selected 10 apps from the list that seem to be the most suitable for their teaching.

Debriefing and evaluation of activity:

Formative informal evaluation working results and contributions to discussions.

ACTIVITY 2 – Best app or crap? From 10 to 3

Objectives

- To acquire the competence to be able to assess the proposed apps themselves for their suitability for use in their own lessons
- To compare one's own assessment with the assessments of the project group and putting the positions into perspective.

Type of activity Testing of apps (hands-on activity)

Materials VR hardware, 3 apps, evaluation sheet

Step-by step Instructions

Each participant tests three selected apps for about 30 minutes and evaluates them using the form developed for this purpose on the right side. Afterwards, the participants compare their own evaluations with those of the project group and Chapter 4 of the E-Compendium) and discuss the results in the plenum.
The activity consists largely of self-learning phases, which do not necessarily require the physical presence of the participants or the simultaneous work of the entire learner group. (If modification of slides is needed, please use *VETREALITY_M4_U2_A1_forms* attached).

Debriefing and evaluation of activity:

Formative informal evaluation working results and contributions to discussions

ACTIVITY 3 Find your own best practice app

Objectives

- To learn how to find apps in the internet/app stores
- To apply in-depth evaluation on apps
- To identify whether or not apps are finally suited for one’s teaching frameworks, aims and needs of the students

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Type of activity In-depth evaluation of app (hands-on activity), development of action plan

Materials VR hardware, 1 app, evaluation sheet, action plan

Step-by step Instructions

In this exercise, the participants are asked to search for an app on the internet or in one of the usual app stores that seems interesting for their lessons and to test it in detail using the evaluation form provided. (*VETREALITY_M4_U2_A2_app_evaluation*) The participants should present their analysis results and discuss them with the plenary. This activity also has large self-learning elements and can be implemented face-to-face or remote.

Debriefing and evaluation of activity:

Formative informal evaluation working results and contributions to discussions

UNIT ASSESSMENT

We find it very difficult to evaluate the knowledge transfer and competence building within the framework of this unit in a standardised way and to give quantitative and qualitative specifications. Rather, the learning effects result from the quality of the contributions, discussions, the evaluation sheets produced and the intensive practical testing of the apps.

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Day 5

How to foster WBL at local level and EU mobility for SEN students using VR applications

Module Leader: Reattiva, Italy

SUMMARY

Duration: 8 hours that can be divided as follows:

- An 8-hours-long day workshop;
- A session of 3 hours (including evaluation unit) + a session of 5 hours (incl. evaluation unit) OR a session of 3 hours (including evaluation unit) + 3 sessions of 1.5 hours each + 0.5 hour for the evaluation unit at the end of the third session.

Module Units

5.1 Basic knowledge of WBL at local level and EU mobility programs, with a special eye for SEN students and VR

5.2 VR to apply and get ready for WBL at local level and participate to EU mobility programs.

Aim of the Module

- To raise VET teachers and trainers' awareness about WBL at local level and EU mobility programs and how VR could be used to foster them among SEN students.
- To equip VET teachers and trainers with basic knowledge, skills and competences on how VR could be used to prepare SEN students to undertake a WBL experience at local and/or at EU/mobility level.

Learning Outcomes

Knowledge:

- Understand how VR can be the basis for fostering experiential learning practices (WBL at local level and/or WBL at EU/mobility level) addressed to SEN students.
- Be aware of the main learning potentials of VR when applied for facilitating SEN students' access to WBL at local and/or at EU/mobility level.
- Understand how SEN students' engagement in WBL at local level and in mobility programs could be increased through VR applications.

Skills:

Be able to use at least 10 out of the 20 recommended VR applications.

Competencies:

- Be competent in applying VR technology at own classes with SEN students in the frame of WBL at local level and in mobility programs.

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- Be competent, thanks to a cascade effect, in transferring to other VET staff (within own or other organisations) competences on VR applications for supporting SEN students' access to WBL at local level and to mobility programs.

Teaching Methods

- At home individual investigation: think, ask and research.
- Frontal lesson.
- Station rotation thought shower – learning together through interactive group discussion.
- Practical teacher demonstrations of hardware/software.
- Experimentation of VR applications.
- Simulation exercises.
- Evaluation through reflection, questions and discussion and written based recording of success/challenges associated with VR equipment and educational use.

Teaching Materials

Please see the activities of the units.

Digital tools

- Computer.
- Projector.
- VR hardware consoles.
- VR software and apps.

Assessment Methods/Tools

- Discussion/interactive engagement.
- Informal assessment Q&A.
- Feedback.
- On-going monitoring of teachers' engagement with VR hardware.
- Questionnaire.

MODULE INTRODUCTION

This module focuses on how VET teachers and trainers could use VR hardware and apps to foster WBL at local level and EU mobility programs among SEN students, to facilitate equal access and inclusion in all VET environments. Even if most WBL at local level and EU mobility programs are suitable for SEN students, often prejudice and fear feed hesitation and SEN students miss the chance to undertake a WBL path at local or a mobility experience. The aim of this module is to equip VET teachers and trainers with basic knowledge, skills and competences on WBL (mobility) programs and how VR could be used to prepare SEN students to undertake a WBL experience at local and/or at EU/mobility level.

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UNIT 5.1 Basic knowledge of WBL at local level and EU mobility programs, with a special eye for SEN students and VR

Objectives

- Obtain general information and learn about WBL at local level and EU mobility programs, with a special eye for SEN students and VR.
- Identify the main steps, needs and requirements to apply and get ready for WBL at local level and EU mobility programs as well as to carry them out.
- Identify limitations and opportunities for SEN students to undertake WBL at local level and EU mobility programs.
- Identify the role that VR could play to foster WBL at local level and EU mobility programs among SEN students.
- Reflect on how VR could be used by SEN students to prepare for WBL at local level and for EU mobility programs, and especially on the possible VR's contributions and limitations.

Time

3 hours

Handouts/Activities

Activity 1. Presenting WBL at local level and EU mobility programs, with a special eye for SEN students and VR. (30 min)
Annexes downloadable from the VETREALITY project website:
M5_U1_Useful info and links about local WBL and EU mobility programs.docx

PPT presentation M5_U1_1.PPT

Activity 2. Homework/in class activity: think, ask and research about WBL at local level and EU mobility programs, with a special eye for SEN students and VR. (20-30 min or more)

Annexes downloadable from the VETREALITY project website:
M5_U1_ Activity 2 - The Questions.docx

Activity 3. Station rotation thought shower session on VR for local WBL and EU mobility programs and SEN students. (1hour and 40 min)

Unit Assessment: Semi-structured questionnaire about the topic of the Unit 5.1 available at https://docs.google.com/forms/d/e/1FAIpQLSeB4hZukcH8Ci5FLpLSf-bRvFxqHmNIdwVW_JH83g8JOZ8O0A/viewform. (25-35 min)

Brief description of the unit:

The goal of this unit is to acquaint SEN students' teachers and trainers with several local WBL and EU mobility programs and their main characteristics, in terms of main phases, steps, requirements, aspects and implications, as well as with the role that VR could play to prepare and foster this kind of opportunities among SEN students.

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ACTIVITY 1 Presenting local WBL and EU mobility programs, with a special eye for SEN students and VR

Objectives

- Learn about local WBL and EU mobility programs, with a special eye for SEN students and VR.
- Develop personal ideas, opinions, and questions about local WBL and EU mobility programs, with a special eye for SEN students and VR.

Type of activity Frontal lesson (20-30 min.).

Materials

- M5_U1_Useful info and links about local WBL and EU mobility programs.docx
- M5_U1_~1.PPT
- Internet connection, computer, projector, board and markers, sheets of paper and pens.

Step by step instructions

Right before the class, the trainer sends M5_U1_Useful info and links about local WBL and EU mobility programs.docx to the participants. The trainer asks them to check it out and to integrate it with a program they know.

First, using the PPT presentation the trainer provides participants with background info about their main characteristics and phases (get in a WBL program, preparing for it, starting it, going through it, ending it) and present some of the local WBL and EU mobility programs listed in the first annex. The trainer focuses on SEN students and refer to VR, but only lightly, as the content must come from participants in the next activities.

Debriefing and evaluation of activity

Q&A about the slideshow presentation and Annex I (10-15 min.). *Feedback* is welcome. This will be used to improve the slideshow presentation, the Questions of Activity 1, and Annex I.

ACTIVITY 2 Homework/in class activity: think, ask and research about local WBL and EU mobility programs, with a special eye for SEN students and VR

Objectives

- Obtain general information about local WBL and EU mobility programs, with a special emphasis for SEN students and VR.
- Develop personal ideas, opinions, and questions about local WBL and EU mobility programs, with a special eye for SEN students and VR.

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Type of activity Homework/in class activity: think, ask, research (20/30 minutes or more)

Materials

- The PPT presentation "Breaking down and defining WBL at local level and EU mobility programs".
- Annex M5_U1_ Activity 2 - The Questions.docx
- Internet connection, smartphone, computer, paper, and pen.

Step by step instructions

Ahead the class the trainer should ask the participants the following questions which can also be found in the mentioned annexes above

- What do you know about local WBL and EU mobility programs?
- What kind of local WBL and EU mobility programs do exist?
- What are the main characteristics of the local WBL and EU mobility programs that you know?
- What do they have in common?
- What are their main phases?
- Do you know any SEN student who has carried out a WBL program…?
  - … in its own city?
  - … in another city of its own country?
  - … in another country?
- What kind of SEN student was he or she?
- For what kind of SEN do you think that it would be **easier / more difficult** to go for a WBL program (abroad)?
- Do you know any local WBL and/or EU mobility programs specifically targeted for SEN students?
- What kind of **limitations** and **opportunities** local WBL and EU mobility programs can imply for (different kinds of) SEN students?
- What can be the main **barriers** for a SEN student to go for a WBL program?
- What can be the main **opportunities** for a SEN student to go for a WBL program?
- Do you have any idea about **how VR** could be used to **foster** local WBL and/or EU mobility programs among SEN students?
- Think also about its possible **limitations** and **contributions**.

The trainer asks participants to outline their answers drawing from their own experience, speaking with people they know, conducting some research and going through the slideshow presentation "Breaking down and defining WBL at local level and EU mobility programs". They can take mental, digital, or analogical note of their answers. This will give participants thinking time, time to mull the topic over in their heads before the class. They can also do this activity with a training colleague to deepen and enrich their knowledge through discussion and a wealth of points of view.

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Debriefing and evaluation of activity

Add that feedbacks about the activity are welcome. For example, if a participant would like to add, eliminate, or modify a question their opinion is welcome. All questions and discussions are welcome. Feedback is important to know what to keep and modify to improve an activity.

ACTIVITY 3 Station rotation thought shower session on VR for local WBL and EU mobility programs and SEN students

Objectives

- Identify the main aspects about applying, preparing for, and carrying out local WBL and/or EU mobility programs: main steps, pivotal moments, requirements, etc.
- Identify challenges and opportunities for SEN students to undertake local WBL and/or EU mobility programs.
- Identify how VET teachers and trainers could use VR to foster local WBL and/or EU mobility programs among SEN students.
- Identify how SEN students could use VR to get ready for local WBL and/or EU mobility programs.
- Reflect on VR limitations and contributions in preparing SEN students for local WBL and/or EU mobility programs.

Type of activity

Station rotation thought shower session on the main aspects of local WBL and EU mobility programs, paying attention to the role that VR could play to foster them among SEN students.

Materials

- Three tables separated from each other surrounded by as many chairs as the number of participants.
- 3 big cardboards, one on each table. Each cardboard is a Station concerning an aspect about undertaking local WBL and/or EU mobility programs.
- Each cardboard has writing on it that is related to its respective Annex.
- The title of station 1's cardboard is *Look and apply for local WBL and EU mobility programs*
  The title of station 2's cardboard is *Train professional skills and competences before undertaking a (EU) WBL mobility program*
  The title of station 3's cardboard is *Train life skills and competences before undertaking a (EU) WBL mobility program*
  These cardboards can be downloaded from the VETREALITY project website as follows:
    M5_U1_Activity 3 - Station 1 - Trigger questions.docx
    M5_U1_Activity 3 - Station 2 - Trigger questions.docx
    M5_U1_Activity 3 - Station 3 - Trigger questions.docx.
- Markers of 3 different colours: one colour for each cardboard.
- A board, markers, pens, sheets of paper. Optional: computer and projector.

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Step-by step Instructions

The trainer takes 10 minutes to explain the activity to the participants. The participants are divided into 3 sub-groups. Each group starts the activity sitting around one of the three tables. After 15-20 minutes, for two times, every group rotates to the next table. After 45-60 minutes every group will have spent 15-20 minutes discussing in group around each one of the three tables.

At every round, the groups read about the topic pinpointed by the station's cardboard, as well as the ideas that the group(s) previously sitting there jotted down on it, in the form of a **mind map**. Then they debate about it and write down, on the cardboard, adding pieces to the mind map, the main ideas that emerge from their discussion, integrating the previous group's thoughts. In addition, at every station the participants are going to find a list of **trigger questions** (see the 3 annexes) that are meant to be used as inspiration, as food for thought, not as a list of questions to answer to one by one.

The trainer, before starting the activity, sets clear ground rules: 1) **The focus should be on quantity**. A good thought shower will generate many ideas; the more, the better. The thinking behind this is that quantity naturally breeds quality. The more ideas there are, the bigger the chance of an effective solution. 2) **Criticism is not allowed**. People taking part should be free to speak their mind. There should be no judgement from others as this can inhibit lateral thinking and could even prevent some team members from participating. 3) **Unusual ideas welcomed**. All assumptions should be suspended, a new perspective welcomed.

The trainer moves throughout the classroom, listens to the discussions, encourages people to take part and gives hints and suggestions when a discussion reaches a dead end or becomes too broad. The trainer also reminds participants to keep focusing on SEN students and VR.

Station 1: Look and apply for local WBL and EU mobility programs (15-20 minutes x 3 times)

Trigger questions:

- Where would you look for information?
  Trigger answers: webpages, contacts, search engines, private or public bodies, etc.
- What are the main steps of an application process and in what order are they usually taking place?
  Trigger answers: finding info, ask questions, register to a new platform, prepare documentation, get an answer, be invited for a job interview, waiting for an answer…
- What are the main documents that are needed to apply for local WBL and EU mobility programs? What other kind of documents may be asked for?
  Trigger answers: CV, cover letter, other application documents, portfolio, personal webpage, etc.
- What are the main limitations to SEN students' access to local WBL and to EU mobility programs *in this phase*? *Trigger answers*: ignoring programs or key information, emotional hesitation, fear, prejudice, not knowing who to ask for help, not being used to ask for help, insecurity, lack of resources, do not feel capable to communicate in a foreign language, etc.
- How VR could be useful *in this phase*?
  Trigger answers: practice an interview, define, and organize the steps that need to be undertaken to get local WBL and/or EU mobility programs, practice the ability to speak in public, etc.
- What could be the limits of VR, instead?
  Trigger answers: to have to learn how it works, to mistake it as reality.

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Station 2: Train *professional* skills and competences before undertaking a WBL program (15-20 minutes x 3 times)

Trigger questions:

- What kind of professional skills and competences are required to undertake a WBL program?
  Trigger answers: some skills are specific of a sector/job, like bartending for bars, while other are transversal, like speaking a foreign language.
- How could a SEN student train professional skills and competences and get ready for a WBL program before undertaking it?
  Trigger answers: for example, by practicing some of the job's tasks or by train some skills that are necessary for the job to be fulfilled properly, like the foreign language.
- How could a SEN student use VR to train her/his *professional* skills and competences?
  Trigger answers: using a job simulator, practicing a foreign language.
- By the way, what could be the limits of VR instead?
  Trigger answers: depending on the kind of SEN, a VR app can/cannot be suitable for a certain student, or certain apps can/cannot be useful as a training tool in the real world.

Station 3: Train *life* skills and competences before undertaking a (EU) mobility program (15-20 minutes x 3 times)

Trigger questions:

- What kind of *life* skills and competences is useful to have and or develop to undertake a (EU) mobility program?

  Trigger answers: be willing to dare speaking in a foreign language and to practice it; thinking of what is needed and prepare the luggage for the experience; know how to travel and take a flight; get info about the city/culture/practicalities of the mobility's place; get into the right mood and keep it; housekeeping; move throughout a new city; moments of loneliness and frustration; get to know new friends; dealing with the time to go back home.

- How could a SEN student train these *life* skills and competences to prepare for a mobility abroad?

  Trigger answers: thinking of its own weaknesses and interests and get experience.

- How VR could be useful in this sense? By the way, what could be the limits of VR instead?

  Trigger answers: use a suitable VR app to work out specific interests, doubts, insecurities. The limit of VR is that it is fictitious.

Debriefing and evaluation of activity

When the station rotation thought shower session ends, each sub-group presents to the rest of the group the ideas expressed on the last cardboard they have been debating about. The objective here is to collectively discuss about the results of the session to draw some pivotal conclusion for each cardboard. While the participants discuss, the trainer writes down the generated ideas on the board to define the key points of each cardboard. This exercise should last around 30 minutes.

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UNIT ASSESSMENT

Assessment Tool/Method: Semi-structured questionnaire about the topic of the Unit 5.1 to assess whether the knowledge was acquired, solve possible doubts, and collect suggestions to improve the implementation of Unit 5.1.

Materials: Smartphone or computer, internet connection, evaluation questionnaire available at the following link https://docs.google.com/forms/d/e/1FAIpQLSeB4hZukcH8Ci5FLpLSf-bRvFxqHmNIdwVW_JH83g8JOZ8O0A/viewform

Step-by-step instructions

- the trainer provides the questionnaire to every participant and gives them 10-15 minutes to answer the questions.
- The results are projected and discussed in plenary for 15-20 minutes.

UNIT 5.2 VR to apply and get ready for local WBL and/or EU mobility programs

Objectives

- Learn how to use VR to find and apply for local WBL and/or EU mobility programs.
- Learn how to use VR to get ready for local WBL and/or EU mobility programs.

Time 5 hours

Handouts/Activities

Activity 1. Participatory exploration of VR apps to look and apply for local WBL and/or EU mobility programs. (1 hour and 30 min)
Activity 2. Participatory exploration of VR apps to train professional skills before undertaking a WBL program. (1 hour and 30 min)

Activity 3. Participatory exploration of VR apps to get ready for an EU mobility program. (1 hour and 30 min)

Assessment of the unit. (30 min)

Brief description of the unit:

The unit is about exploring the potential of VR as a tool to support VET teachers and trainers and (SEN) students throughout the application process and the preparation phase before undertaking local WBL and EU mobility programs.

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ACTIVITY 1 Participatory exploration of VR apps to look and apply for local WBL and EU mobility programs

Objectives

VET teachers and trainers will get an overview of the software platforms and tools available on the market that could be used to support SEN students aiming at applying for local WBL and EU mobility programs, starting from the search of an internship, going through the mapping of the steps to undertake and the preparation of the documents to apply for it, until arriving at the preparation of an interview.

Type of activity

Participatory exploration of VR apps and debate

Materials

- Internet connection.
- computer.
- VR hardware and software/apps.
- paper, pens, and rulers; board.
- VETREALITY e-Compendium for VET teachers and trainers.

Step-by step Instructions

1) The teacher or trainer shows a list of VR apps and software that can be useful to support (SEN) students **in looking for local WBL and EU mobility programs and apply for them**.
   The trainer can refer to the unit 4 “Best Practice Apps” of the VETREALITY e-Compendium for VET teachers and trainers, as well as to a list of previously prepared apps.
   For example, the trainer can propose the following apps:
   - **Noda** (App 4.13 in the VETREALITY e-Compendium for VET teachers and trainers).
     This app could be useful to develop individually or in a collaborative way a 3D mind map of the sequence of steps to undertake, to find and apply for local WBL and EU mobility programs. In other words, this app could be useful to get an overview, plan, organize and prioritize the steps to go from the idea of doing a WBL at local level or a EU mobility experience to get one in a playful way.

   - **Virtual Speech** (App 4.18)
     This app could be useful to practice public speaking, for example for job interviews or public presentations, and receive feedbacks.

   - **Virtro Job interview simulations** (App 4.8)
     This app could be useful to practice job interviews and receive feedbacks.

2) Time to practice the proposed VR apps!

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Debriefing and evaluation of activity

The trainer discusses the pros and cons of every proposed app with the participants, takes notes and welcome observations, new proposals, ideas, and doubts.

ACTIVITY 2 Participatory exploration of VR apps to train professional skills before undertaking a WBL program

Objectives

- Using VR to train professional skills before undertaking a WBL program.
- Getting ready for a WBL experience with the support of VR.
- Use VR to train professional skills and knowledge through simulators or other kinds of apps for work.
- Teacher or trainer will familiarise with VR apps and get inspiration.
- This activity concerns using VR applications and hardware to train SEN students for WBL programs.

Type of activity Participatory exploration of VR apps and debate

Materials

- Internet connection.
- computer.
- VR hardware and software/apps.
- paper, pens, and rulers, board.
- VETREALITY e-Compendium for VET teachers and trainers.

Step-by step Instructions

1) The trainer shows a list of VR apps and software that can be useful to support (SEN) students **to train key professional skills** for local WBL and EU mobility programs they would like to undertake.

   The trainer can refer to the unit 4 “Best Practice Apps” of the VETREALITY e-Compendium for VET teachers and trainers, as well as to a list of previously prepared apps.

   For example, the trainer can propose the following apps:
   - **Bartender VR** (App 4.2 in the VETREALITY e-Compendium for VET teachers and trainers) and **Cooking Simulator** (App 4.14) to practice bartending and what is to work in a restaurant’s kitchen for those interested in working in the *Services* sector.
   - **Job Simulator VR** (App 4.6) to practice the role of office worker, gourmet chef, convenience store clerk and auto mechanic for those interested in working in the *Services, Business, Administration, Manufacturing* and *Processing* or in the *Construction* sectors.
   - **Shopkeeper simulator VR** (App 4.7) to practice running a shop for those interested in working in the *Services* and in the *Business* or in the *Administration* sectors.
   - **Farm VR** (App 4.4) to learn about agriculture for those who are interested in working in the *Agriculture, Forestry, Fisheries, Veterinary* and in the *Manufacturing* and *Processing* sectors.

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- **Hololab Champions** (App 4.5), **The body VR** (App 4.10) and **Sharecare VR** (App 4.19) to practice conducting chemical experiments, explore biological processes in the human body and study anatomy and pathology for those interested in working in the *Natural Sciences, Mathematics* and *Statistics* and *Health* and *Welfare* sectors.
- **Hold the World** (App 4.11) to see how it is to work in a museum or teach history for those interested in working in the *Arts and Humanities* and *Education* sectors.
- **Masterworks: Journey through history** (App 4.17) to explore different environments across continents to visit some of the world's most amazing places that span 3000 years of human history, collect artifacts, and learn from archaeologists and scientists about the mysteries of who built these amazing places and learn about the challenges they face today for those interested in working in the *Arts and Humanities, Social Sciences* and *Education* sectors.

2) Time to practice the proposed VR apps!

Debriefing and evaluation of activity

The trainer discusses the pros and cons of every proposed app with the participants, takes notes and welcome observations, new proposals, ideas, and doubts.

ACTIVITY 3 Participatory exploration of VR apps to get ready for local WBL and EU mobility programs

Objectives

- Teacher or trainer will get an overview of the software platforms and tools available on the market, that could be used to support SEN students applying for local WBL and EU mobility experiences abroad.
- Teacher or trainer will familiarize with VR apps and get inspiration.
- Use VR apps to train for EU mobility experiences abroad.
- Using VR to get ready for a mobility program.

Type of activity Participatory exploration of VR apps and debate

Materials

- Internet connection.
- computer.
- VR hardware and software/apps.
- paper, pens, and rulers, board.
- VETREALITY e-Compendium for VET teachers and trainers.

Step-by step Instructions

1) The trainer shows a list of VR apps and software that can be useful to support (SEN) students **to get ready for a mobility program** that is to get ready for spending a life period in a new context where people speak a foreign language and there is a different culture to explore and learn about, but also to get ready for independency and management of daily life.

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The trainer can refer to the unit 4 “Best Practice Apps” of the VETREALITY e-Compendium for VET teachers and trainers, as well as to a list of previously prepared apps.

For example, the trainer can propose the following apps:

- **Google Cardboard** (App 4.15 in the VETREALITY e-Compendium for VET teachers and trainers) to familiarise with the places the trainee will visit when in mobility either by using one of the numerous virtual tours (visit-type) resources available on the Internet or by easily creating a new one.

- **Google Art and Culture** (App 4.16) to learn about arts, culture, traditions, history of numerous places worldwide through a wide offer of articles, videos, images, virtual tours, and games.

- **Mondly VR** (App 4.20) to practice a foreign language in a fun way and receive tips and feedbacks about performance.

2) Time to practice the proposed VR apps!

Debriefing and evaluation of activity

The trainer discusses the pros and cons of every proposed app with the participants, takes notes and welcome observations, new proposals, ideas, and doubts.

UNIT ASSESSMENT

Assessment Tool/Method: Feedback

Materials:

- Post its
- pens
- markers

Step-by-step instructions

- the trainer hands-out post-its of different colours to the participants asking to write down 1) what it was useful to learn that will be used/further investigated (one colour); 2) what should be different and requires improvement (the other colour).
- Participants have 10-15 minutes to reflect, note own answers, stick the note on the board.
- The last 15-20 minutes are used by the trainer to read out loud the answers and comment them together with the rest of the group.
- At the end the trainer records the result of the activity to analyse it and improve the same activity the next time.

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Day 6

Educational potential and the future of VR in workplaces

Module Leader: Danmar Computers, Poland

SUMMARY

Duration: **8** hours: 2 lessons of 3 hours and 1 lesson of 2 hours

Module Units

6.1 How VR is currently used in workplaces

6.2 Educational potential of VR

6.3 What is next for VR?

Aim of the Module

- Increase interest in current job training opportunities offered by VR.
- Raising awareness of VR technology and its potential future development.
- Understanding how businesses are currently using VR to train employees

Learning Outcomes

Knowledge:

- Aware of the main learning potentials of VR when applied for facilitating SEN students access to WBL at local and EU/Mobility level.
- Competent in applying VR technology at own classes with SEN students in the frame of WBL
- Knowledge of how VR can be used in the workplace
- Aware of how VR can support employee training
- Aware of what VR and AR are and how they affect the VR work environment
- Aware of the application of VR in a work environment
- Aware of how VR may change in the future
- Aware of the risks associated with VR

Skills:

- Possess the ability to use VR applications in the class
- Possess the ability to operate different VR devices

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Competencies:

- Have the ability to present VR solutions in companies
- Be able to transfer knowledge about VR
- Be able to search for opportu*nities to use VR*

Teaching Methods

- Frontal lesson
- Practical demonstrations on the use of VR applications
- Group work
- Individual work

Teaching Materials

- e-Compendium
- Sheets of paper/flipchart,
- Pens/markers
- Videos
- Presentations

Digital tools

- VR hardware consoles
- VR headset
- VR software and apps
- Computers (if needed *for VR hardware)*

Assessment Methods/Tools

Quiz

MODULE INTRODUCTION

This module aims to get VET teachers and trainers interested in the possibilities of VR and the foreseeable possibilities of its development especially in using it for workplace training. Furthermore, this module aims to present how VR is already being used in Industry 4.0 to support work and as a resource for safe training. Finally, the module will answer the question what is next for this technology in relation to education and work-based learning?

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UNIT 6.1 How VR is currently used in workplaces

Objectives

- Getting to know the possibilities offered by VR
- Exploring the possibilities of using VR at work
- Understand how VR is currently being used in the workplace

Time 3 hours

Handouts/Activities

Activity 1: To get started. (1hour)

Activity 2: VR and the workplace. (1hour)

Activity 3: Presentation of VR solutions. (1hour)

Brief description of the unit:

The first unit is designed to introduce participants to the world of VR in the work environment. Participants will be tasked with trying to understand what VR applications could deliver in the workplace and explore the current state of play.

ACTIVITY 1 To get started

Objectives Getting to know the possibilities offered by VR

Type of activity Presentation, discussion and individual work

Materials One of the applications included in the e-compendium (depends on VR headset chosen)

Step-by step Instructions

- Work starts with a short reminder about VR technology in the form of open discussion (10 minutes)
- The trainer launches any VR application as a warm-up and to motivate participants to active participation (40 minutes)
- If necessary, there is a quick question and answer session (10 minutes)

Debriefing and evaluation of activity No evaluation needed

ACTIVITY 2 VR and the workplace

Objectives Exploring the possibilities of using VR at work

Type of activity Working in groups

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Materials

- Sheets of paper/flipchart (depending on group size)
- pens,
- markers
- Presentation M6_U1_How VR is currently used in workplaces.pptx

Step-by step Instructions

- Work starts by dividing participants into small groups (10 minutes)
- Each group does a brainstorm and tries to think of as many possible applications of using VR as possible. The aim is to search for a specific occupation and match the possibilities offered by VR. For example: Hairdresser - Hairdressing training using VR (30 minutes)
- Each group presents its ideas (20 minutes)

Debriefing and evaluation of activity No evaluation needed

ACTIVITY 3 Presentation of VR solutions

Objectives Understand how VR is currently being used in the workplace

Type of activity Presentation, discussion

Materials 5 Ways You Can Use Virtual Reality in the Workplace
https://www.viar360.com/5-ways-can-use-virtual-reality-workplace/

Step-by step Instructions

- The trainer provides a detailed presentation of the topic (10 minutes)
- Group work (25 minutes)
  - Group_1 *"Come up with how VR can support learning in the workplace"*
  - Group_2 *"Come up with solutions that VR can offer in education"*
  - Group_3 *"Come up with how VR can enhance computer games"*
- Presentation of results and discussion (25 minutes)

Debriefing and evaluation of activity No evaluation

UNIT ASSESSMENT

Assessment Tool/Method: Quiz

Materials: Kahoot platform!

Step-by-step instructions To test their knowledge, the trainer conducts a short quiz with participants using the Kahoot platform! The quiz questions are also downloadable in EN from the VETREALITY project website

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UNIT 6.2 Educational potential of VR in workplace

Objectives

- Understanding what VR and AR are and how they affect the VR work environment
- Practical work with VR glasses
- Understanding the application of VR in a work environment

Time 2 hours 55 minutes

Handouts/Activities

Activity 1: What is VR and AR. (45 min)

Activity 2: VR learning applications. (1hour and 15 min)

Activity 3: Presentation of VR solutions. (55 min)

Brief description of the unit:

This unit is intended to present real-life examples of introducing VR into a company and showing how VR can be used. Furthermore, the unit presents the differences between VR and AR and explains why they need each other.

ACTIVITY 1 What is VR and AR

Objectives Understanding what VR and AR are and how they affect the VR work environment

Type of activity Presentation of differences between VR and AR

Materials Video_1: https://www.youtube.com/watch?v=vz0UUVDt2ps

Video_2: https://www.youtube.com/watch?v=f9MwaH6oGEY

Step-by step Instructions

- The trainer will show 2 videos (15 minutes)
- Discussion with participants on the differences between VR and AR (30 minutes)

Debriefing and evaluation of activity No evaluation needed

ACTIVITY 2 VR learning applications

Objectives Practical work with VR glasses

Type of activity Individual work

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Materials VR goggles, VETREALITY e-Compendium

Step-by step Instructions

- Working with a VR device and an educational game. The choice of game depends on the choice of VR hardware. Inventory of apps and games for specific hardware are available in the VETREALITY e-Compendium (60 minutes).
- Group discussion on how VR applications can support the learning of practical skills. (15 minutes)

Debriefing and evaluation of activity

No evaluation needed

ACTIVITY 3 Presentation of VR solutions

Objectives Understanding the application of VR in a work environment

Type of activity Presentation, discussion

Materials VR in the workplace online articles:

- Why Microsoft Uses Virtual Reality Headsets To Train Workers
  Link: https://www.youtube.com/watch?v=Rnk_akgSjqg
- Occupational Safety and Health Training in Virtual Reality
  Link: https://www.youtube.com/watch?v=L5lo63YzAAU
- VR Safety Training for Electric Power Industry | Oculus Quest
  Link: https://www.youtube.com/watch?v=5AsksACwdDE

Step-by step Instructions

- Presentation of VR solutions in the workplace (15 minutes)
- Discussion on the advantages of VR training (25 minutes)
- Re-discussion (continuation of Unit 1) on what professions could have the opportunity to use VR (15 minutes)

Debriefing and evaluation of activity No evaluation

UNIT ASSESSMENT

Assessment Tool/Method: Quiz

Materials: Kahoot platform!

Step-by-step instructions To test their knowledge, the trainer conducts a short quiz with participants using the Kahoot platform! The quiz questions are also downloadable in EN from the VETREALITY project website

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UNIT 6.3 What is next for VR

Objectives

- Understanding how VR may change in the future
- Understanding the risks associated with VR

Time 2 hours and 10 minutes

Handouts/Activities **Activity 1**: The future of VR. (1hour and 5 min)

Activity 2: The dangers of VR. (1hour and 5 min)

Brief description of the unit:

This unit focuses on presenting possible ways forward for VR technology as well as possible risks associated with the development of this technology.

ACTIVITY 1 The future of VR

Objectives Understanding how VR may change in the future

Type of activity Presentation

Materials PPTX presentation M6_U3_what is next for VR. pptx

Step-by step Instructions

- Work begins with a presentation provided by the trainer on the future of VR (15 minutes)
- Group work session, each group thinks of an interesting application for VR technology in education/work (35 minutes)
- Presentation of the results (15 minutes)

Debriefing and evaluation of activity No evaluation needed

ACTIVITY 2 The dangers of VR

Objectives Understanding the risks associated with VR

Type of activity Group work

Materials 4 Health Risks from Using Virtual Reality Headsets

Link:https://www.vesttech.com/4-health-risks-from-using-virtual-reality-headsets/

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Step-by step Instructions

- The session begins with a short presentation provided by the trainer of the current risks associated with VR (10 minutes)
- Each group is asked to consider what risks (for example, economic risks) the uncontrolled development of VR technology may cause (40 minutes)
- Presentation of results (15 minutes)

Debriefing and evaluation of activity

No evaluation needed

UNIT ASSESSMENT

Assessment Tool/Method:	Quiz
Materials:	Kahoot platform!
Step-by-step instructions	To test their knowledge, the trainer conducts a short quiz with participants using the Kahoot platform! The quiz questions are also downloadable in EN from the VETREALITY project website

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SELF-DIRECTED LEARNING PATH

Dear Teacher/Trainer,

If you are reading this chapter, it means that you have completed the “Guided-Training” path of the VETREALITY Training Programme.

We hope that your knowledge is now sufficient to integrate VR apps into your own teaching, and especially to facilitate and support the access of your SEN students in WBL / mobility.

Thus, now, you should be able to use and apply VR technology and you can enter the “Self-Learning” path of the Training in order to explore on your own at least 10 out of the 20 VR applications recommended in the VETREALITY e-Compendium for VET Teachers and Trainers.

At first, to feed a bit more your learning, and to strengthen even more the concepts we have already analysed in the face-to-face training path, we invite you now to watch the VETREALITY webinars.

Each webinar complements a training day and provides a theoretical background and additional explanations on what you have already learnt / experienced in the “Guided-Training” path.

You are also able to carry out the self-directed learning activities foreseen in the different modules of the guided path.

You are now ready to explore on your own the 20 apps we propose in the VETREALITY e-Compendium for VET Teachers and Trainers.

You should evaluate them in terms of usability for supporting SEN students' access to WBL. During this phase, we will support you via remote and through our webinars.

In the 4th day of our face-to-face training, you have already gained some knowledge, skills and competences as well as the tools to analyse those apps. You have also received information on how to search and assess new VR apps, according to your SEN students’ needs.

Thus, we invite you to explore at least 10 out of the 20 apps we identified in the e-Compendium, and to find at least 3 new ones which are suitable for your students!

You can use the evaluation form here below (retrieved from the 4th day of training – Unit 2 - Activity 2) in order to create your own comparative analysis of the VR applications you find on the Internet.

To conclude this part of the Training Programme, you can share with the other participants to the VETREALITY Training the outcomes of your VR apps’ assessment.

It will be very useful in order to find out new VR apps to use with your students but also to share thoughts and opinions about VR apps that several of you have found out.

Enjoy your exploration!

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ANNEX 1: App Description and Evaluation Form

Best practice app N° 1	DESCRIPTION		
Full official name:			
Provider/Developer:			
Demo link:			
Price:			
Year of publication:			
Available languages:	☐ ENG ☐ ESP ☐ FRA ☐ GER ☐ ITA ☐ POL ☐ OTHER: _____		
Available on these VR software platforms:	*Please indicate on which platforms this app is available. For example: Steam VR, VIVE PORT, Google Play etc.*		
Available for these VR hardware systems:	*Please indicate which VR hardware system is needed for this VR app*		
Learning content description: (at least 200 characters)	*What kind of content is available? Please be specific and describe the VR app for someone who is not familiar with it.*		
Learning process description: (at least 200 characters)	*How does the VR application facilitate the acquisition of knowledge or the training of skills?*		
SWOT	**User-friendliness***	**Pedagogic orientation****	**Applicability potential*****
STRENGTHS	• … • … • …	• … • … • …	• … • … • …
WEAKNESSES	• … • … •	• … • … • …	• … • … • …
OPPORTUNITIES	• … • … • …	• … • … • …	• … • … • …
THREATS	• … • … • …	• … • … • …	• … • … • …
Overall summary of findings and recommendations: (at least 500 characters)	*Please indicate your choice why you have selected this app and how it can help to facilitate the access to WBL with a special focus on SEN students; please do also indicate for which group of SEN students the app is best suited and why.*		

**User-friendliness*: How easy is it to use this app? Are there many different functions? Is there a clear structure? Is it clear how to use the app? Are there any challenges in finding specific content? Etc.*

*** **Pedagogic orientation**: Is this app intended for learning or for gaming or maybe both? Does it feature didactic methods that make it easier to grasp for users? Is there specific pedagogic learning content and/or pedagogic methodology used? Etc.*

**** **Applicability potential**: Is this app suitable for the target group of VET trainers and/or the target group of VET learners/SEN learners? If yes, how? How easy can this VR app be used by trainers? Do they need a lot of preparation or not? Etc.*

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