

# VIRAL SKILLS TRAINING PROGRAMME



*Fostering Virtual Reality applications  
within Adult Learning  
to improve low skills and qualifications*

Project No. 2018-1-AT02-KA204-039300



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

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

---

## TABLE OF CONTENT

---

TABLE OF CONTENT.....	1
INTRODUCTION TO THE TRAINING PROGRAMME.....	2
VIRAL SKILLS TRAINING PROGRAMME (OVERVIEW).....	4
VIRAL SKILLS TRAINING PROGRAMME - CURRICULUM .....	5
GUIDELINES FOR IMPLEMENTATION .....	9
GUIDED LEARNING – FACE-TO-FACE PART .....	9
SELF-DIRECTED LEARNING PART.....	10
CONTENT OF THE TRAINING COURSE .....	11
ANNEXES .....	50
AGENDA OF THE LTTA (AND RECOMMENDED TIME TABLE FOR FURTHER IMPLEMENTATION).....	50
TEMPLATE FOR FACE-TO-FACE CONTENT DEVELOPMENT .....	51

---

## INTRODUCTION TO THE TRAINING PROGRAMME

---

This Training Programme is one of the results developed in the Erasmus+ project “Viral Skills - Fostering Virtual Reality applications within Adult Learning to improve low skills and qualifications” funded by the European Commission. Seven partners from six EU countries worked together over a period of 2 years (Oct. 2018 – Sep. 2020) to produce the following outputs:

- ▶ **VR Digest:** An overview of VR systems, requirements, and how to set up your own VR studio.
- ▶ **Viral Skills Compendium:** A useful handbook for adult educators and managers on how to integrate VR in adult learning.
- ▶ **Viral Skills E-Thek:** A collection of 25 free VR software apps that suit the needs of your adult learners including a focus on low-skilled/qualified persons.
- ▶ **Training Programme:** A 10 days blended learning programme (5 days guided learning in a classroom, 5 days self-directed learning via webinars) which certifies participants as "EU Viral Skills Educators" and grants 3 ECVET credit points.

Therefore, this Viral Skills Training Programme is a blended-learning programme based on the Viral Skills Compendium (IO2). It is directed at educators and trainers in the adult education sector. It features 40 hours face-to-face (F2F) training and 40 hours self-directed learning, adding up to a value of 3 ECVET credit points. Participants finish the course with an “EU Viral Skills Educator” certificate and the necessary competences to implement the Viral Skills Training Programme as well as to integrate VR elements in their own training content.

The F2F-part of the training foresees a mixture of theoretical morning sessions and practical afternoon sessions. Ideally, the training is implemented 5 days in a row (one work week), but it also allows flexible implementation of single days or sessions over a longer time period. The second part of the training challenges participants to test their competences on their own, while still receiving support by the professional VR trainers. This is achieved using strategically planned webinars after the F2F-sessions, which provide participants of the training course with more useful information as well as an opportunity to ask questions. The webinars will be created during the testing phase of the training programme and stay available afterwards for further use.

In order to approve the high quality standards, the Viral Skills Training Programme is tested in 1 international and 5 national pilot phases. The first pilot takes place in

January 2020 in Germany and is setup as Learning, Teaching, and Training Activity within the project and trains project staff, therefore directed at an international audience. This provides the Viral Skills partners with the competences to implement the Viral Skills Training Programme in their partner countries. From March-May 2020, the Viral Skills Training Programme is then piloted on national level in Austria, Cyprus, Ireland, Italy and Spain.

Furthermore, the Viral Skills Training Programme is assessed formally in regards to quality standards. First, an internal evaluation of the curriculum and training programme draft is implemented internally among the partnership. During the pilots, the external evaluation takes place and asks participants to give feedback about the training course they experienced. This is achieved using a standardised Google Form during the last morning session (Unit 4.2) of the Training Programme. Finally, an evaluation report is created by Auxilium, the lead partner of this output the quality management within the Viral Skills project.

## VIRAL SKILLS TRAINING PROGRAMME (OVERVIEW)

80 hours of training  
(3 ECVET credit points)

F2F (40 hours)							self-directed learning (40 hours)	
Theoretical Input (20 hours)				Practical Testing (20 hours)			Webinars (min. 3,5 hours)	Testing of VR apps (32,5 hours)
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7		
Intro to VR	VR in education	VR for low-skilled persons	Mainstreaming Viral Skills	Immersive Engaging Experiences	Intro to Viral Skills E-Thek	Testing session 1 Testing session 2 Testing session 3	P1: Webinar Tutorial  P2: Viral Skills Webinar Austria P3: Viral Skills Webinar Cyprus P4: Viral Skills Webinar Germany P5: Viral Skills Webinar Italy P6: Viral Skills Webinar Ireland P7: Viral Skills Webinar Spain	Navigating E-Thek  Evaluating Apps concerning own experience and needs → Google Form/PDF evaluation sheet will be provided in the E-Thek

**OBJECTIVES:** After completing the Viral Skills Training Programme, the participants should be:

- a) aware of and basically understand the world of VR and its temporary state of the art
- b) familiar with the most common VR providers/systems and their basic pros and cons (e.g. prices, share of the market, quantity and quality of applications provided, specialisation on specific fields such as gaming, business/economy, medicine, education)
- c) aware of the potential that VR technology has for the learning sector in general and in particular for adult learning
- d) aware of the state of the art of the academic discussion concerning this field and what the general pros and cons are postulated by pedagogic science, but also by related fields such as social science or psychology
- e) aware to what extent and under which frameworks VR learning can be applied successfully when working with low-skilled and low-qualified persons
- f) aware what the 25 open source VR applications in the "Viral Skills E-Thek" are the most recommended ones by the partnership and how they can be utilised in adult training sessions, especially when working with low-skilled and low-qualified learners
- g) familiar with at least 10 of the 25 recommended VR applications by having applied them actively in stand-alone learning by doing sessions
- h) competent in applying VR sessions at own classes for adult (low-skilled and low-qualified) learners
- i) competent in introducing the concept of VR learning and its advantages for adult education to others (such as managers and educators within their own or other organisations, learners, stakeholders and policy makers ...)
- j) competent to organise and implement the "Viral Skills Training Programme" for other educators or managers within adult education

## VIRAL SKILLS TRAINING PROGRAMME - CURRICULUM

80 hours of training  
(3 ECVET credit points)

Face-to-Face Training  
(40 hours)

Theoretical Input  
(20 hours)

Unit / Topic	Learning outcomes <i>[The learner will be able to ...]</i>		
	Knowledge	Skills	Competences
<b>UNIT 1:</b> <b>INTRODUCTION TO VR (4H)</b> - introduction to the field of VR - state of the art of hardware and software developments - pro's and con's of hardware and software developments	- explain the concept of VR - explain the difference between hardware systems (PC-based, etc.) - list VR hardware providers - classify VR hardware in relation to their recentness - remember pro's and con's of VR hardware systems - recall potential health risks in connection with VR (simulator-sickness, dizziness)	- compare VR hardware solutions based on technical specifications - compare VR hardware solutions based on available software	- determine the most suitable VR hardware system for their need based on technical facts
<b>UNIT 2:</b> <b>VR IN EDUCATION (4H)</b> - potential of VR in educational sector - academic discussion - state of the art of VR in education (EU and global)	- explain the potential of VR for learning processes - explain the potential of VR in education - explain the potential of VR for adult learners - remember at least 6 VR software genres	- decide for which purposes VR is a suitable learning tool - relate VR technology to social science and psychology	- determine suitable fields of application for VR learning in adult education

<p><b>UNIT 3:</b> <b>VR FOR LOW-SKILLED/QUALIFIED PERSONS (4H)</b></p> <ul style="list-style-type: none"> <li>- various groups of low-skilled or low-qualified persons (school drop outs, refugees, disabilities, ...)</li> <li>- how to reach these groups with VR</li> <li>- how to work with these groups using VR</li> </ul>	<ul style="list-style-type: none"> <li>- explain characteristics of the various groups of low-skilled/-qualified persons</li> <li>- explain specific requirements in working with these target groups</li> </ul>	<ul style="list-style-type: none"> <li>- create suitable learning environment for these target groups using VR</li> <li>- recommend a minimum of 10 VR apps featured in the E-Thek</li> </ul>	<ul style="list-style-type: none"> <li>- determine suitable VR apps from the Viral Skills E-Thek for a certain group of low-skilled/-qualified persons</li> </ul>
<p><b>UNIT 4:</b> <b>MAINSTREAMING VIRAL SKILLS (8H)</b></p> <ul style="list-style-type: none"> <li>- How to improve VR learning at adult education level</li> <li>- how to distribute and mainstream the project results</li> <li>- mainstream usage of VR in adult education</li> </ul>	<ul style="list-style-type: none"> <li>- explain concept and advantages of VR learning to peers (adult education trainers) and superiors (adult education managers)</li> <li>- explain concept and advantages of VR learning to policy makers</li> </ul>	<ul style="list-style-type: none"> <li>- plan VR sessions in own adult trainings</li> <li>- conduct VR sessions in own adult trainings</li> <li>- plan VR sessions in own adult trainings for low-skilled/-qualified persons</li> <li>- conduct VR sessions in own adult trainings for low-skilled/-qualified persons</li> </ul>	<ul style="list-style-type: none"> <li>- implement the Viral Skills training programme</li> <li>- to other educators or managers within adult education</li> </ul>
<p>Practical Testing (20 hours)</p>			
<p>Unit / Topic</p>	<p>Learning outcomes <i>[The learner will be able to ...]</i></p>		
	<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p><b>UNIT 5:</b> <b>IMMERSIVE ENGAGING EXPERIENCES (4H)</b></p> <ul style="list-style-type: none"> <li>- VR devices (glasses, tracking system, navigation tools/controllers, etc.</li> <li>- first exploration of 3D 360° VR environment</li> </ul>	<ul style="list-style-type: none"> <li>- list at least 3 different VR hardware providers</li> <li>- list at least 3 different VR software stores</li> <li>- remember pro's and con's of at least 3 VR providers</li> <li>- identify and recognise symptoms of a negative VR experience</li> <li>- explain potential health risks</li> </ul>	<ul style="list-style-type: none"> <li>- set up VR hardware (VR studio)</li> <li>- navigate VR app store successfully</li> <li>- navigate VR menu's successfully</li> <li>- use the VR controller(s) available in the classroom successfully</li> </ul>	<ul style="list-style-type: none"> <li>- determine the most suitable VR hardware system for their need</li> <li>- &amp; software stores</li> </ul>

		in connection with VR (simulator-sickness, dizziness)	- have positive first VR experience - react constructively in case of negative VR experience	
<b>UNIT 6:</b> <b>INTRODUCTION TO THE VIRAL SKILLS E-THEK (4H)</b> - introduction to the E-Thek - exploration of best practice VR apps for adult education		- extract specific information from the E-Thek - recall at least 10 VR apps from the E-Thek	- explore at least 2 VR applications confidently - decide for which purposes VR apps are suitable learning tools	- determine the educational value of VR applications - move and act confidently in a virtual environment - determine suitable fields of application for VR learning in adult education
<b>UNIT 7:</b> <b>TESTING VR (12H)</b> - Testing Session 1 (4h) - Testing Session 2 (4h) - Testing Session 3 (4h)		- explain the key topics and potential learning benefits of at least 10 VR apps	- explore at least 8 VR applications confidently	- determine pro's and con's for educational utilisation of the VR apps that have been tested personally
self-directed learning (40 hours)				
Webinars(min. 3,5 h) @ Viral Skills YouTube Channel + Events on Facebook				
P1: Webinar Tutorial	min. 30 minutes	<b>Key note: How to implement a YouTube webinar for VR training courses</b> Collecting Feedback and Questions from participants		
P2: Viral Skills Webinar Austria	min. 30 minutes	<b>Key note: VR in adult education</b> Collecting Feedback and Questions from participants		



P3: Viral Skills Webinar Cyprus	min. 30 minutes	<b>Key note: Innovative application of VR technologies in education</b> Collecting Feedback and Questions from participants
P4: Viral Skills Webinar Germany	min. 30 minutes	<b>Key note: VR developments in adult education</b> Collecting Feedback and Questions from participants
P5: Viral Skills Webinar Italy	min. 30 minutes	<b>Key note: How to work with VR in the education sector</b> Collecting Feedback and Questions from participants
P6: Viral Skills Webinar Ireland	min. 30 minutes	<b>Key note: Bringing VR into the classroom</b> Collecting Feedback and Questions from participants
P7: Viral Skills Webinar Spain	min. 30 minutes	<b>Key note: VR in VET and adult education</b> Collecting Feedback and Questions from participants
Testing VR apps (46,5 h)		
<p>The main task of the self-directed learning part is that participants test VR applications from the E-Thek and beyond. They should experiment with the E-Thek and with available VR software app stores. In the E-Thek, an evaluation form will be provided for each application concerning their relevance and applicability within an adult education framework.</p> <p>The webinars mentioned above will support learners during this self-directed learning phase and will be implemented in regular intervals in order to steer the learning progress.</p> <p>For future implementations of the Viral Skills Training Programme, two measures are taken: First, the webinars will stay available on the Viral Skills YouTube channel. Second, the first webinar is a tutorial on how to create a webinar. This means, future trainers are enabled to hold their own webinars with their target groups and are provided with a guideline.</p>		

## GUIDELINES FOR IMPLEMENTATION

---

### GUIDED LEARNING – FACE-TO-FACE PART

Before implementing the guided learning part, trainers should study the whole curriculum and read through the proposed chapters of the VR Digest as well as the Viral Skills Compendium. Furthermore, it is advised to test at least 10 of the 25 E-Thek VR apps before implementing the training. Trainers should also prepare all necessary materials as proposed in the units and prepare for a variety of didactical methods, such as frontal lessons, group and pair work, individual work phases, group discussions, flipchart brainstormings, and many more.

As mentioned in the introduction, the Viral Skills Training Programme is planned as a 40 hour training which was meant for the implementation within one work week. Originally, 8 hours a day should be spend with the training, with a theoretical morning session and a practical afternoon session. In order to enable a flexible and sustainable implementation process, the units are planned in a matter that allows trainers to offer the sessions individually as well. Changing of time frames suggested possible, depending on the target groups needs – e.g. plan more time if the group has never heard of VR before! Nevertheless, the implementation of all units is crucial in order to achieve the full potential of the Viral Skills Training Programme.

Last, but not least, trainers should remember that they are working with adults and therefore should involve them actively in the training. Trainers should build on the experience and knowledge participants bring to the table and pay respect to their expectations and potential worries.

### **SELF-DIRECTED LEARNING PART**

To complete the Viral Skills Training Programme and become an “EU Viral Skills Educator”, learners have to test a minimum of 10 VR apps provided in the Viral Skills E-Thek. Alternatively, they can also test apps beyond the E-Thek and add them to the E-Thek. This will be implemented by providing learners with a simplified template of the E-Thek apps, where they are asked to evaluate the strengths and weaknesses of the apps they are testing as well as the added value for low-skilled and low-qualified adults. Furthermore, they should watch and participate in the webinars offered by the Viral Skills partnership and will confirm that they have participated in the webinars. Additionally, the original E-Thek template used by the partnership is available for download. Participants are free to test apps beyond the E-Thek and send their completed templates to the partnership to help the E-Thek grow.

## CONTENT OF THE TRAINING COURSE

UNIT 1 – Introduction to Virtual Reality			Duration
			4 Hours
Learning Outcomes	Knowledge	Skills	Competences
	<ul style="list-style-type: none"> <li>- explain the concept of VR</li> <li>- explain the difference between hardware systems (PC-based, etc)</li> <li>- list VR hardware providers</li> <li>- remember at least 6 VR software genres</li> <li>- classify VR hardware in relation to their recentness</li> <li>- remember pro's and con's of VR hardware systems</li> <li>- explain potential health risks in connection with VR (simulator sickness, dizziness)</li> </ul>	<ul style="list-style-type: none"> <li>- compare VR hardware solutions based on technical specifications</li> <li>- compare VR hardware solutions based on available software</li> <li>- prevent and avoid negative VR experiences</li> </ul>	<ul style="list-style-type: none"> <li>- determine the most suitable VR hardware system for their need</li> </ul>
Requirements	High-end PC, Beamer, VR hardware system(s), Coloured Pens, Whiteboard, Flipchart	Notes and recommendations for trainers	The aim of this workshop is to build on the existing skills and experiences of adult educators and then to introduce explain differences in VR hardware- and software systems. It is important to capture the experience of those in the training group and harness this in order to enrich the learning.

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
30	<p><b>Welcome:</b></p> <p>Ice breaker game - One Truth and two Tale Both tales and the one truth regarding personal experiences with Virtual Reality or Augmented Reality</p> <p><u>Main aim:</u> Participant get to know each other in a casual and fun atmosphere; while getting to know each other every participant will provide first insights into their experiences with VR technology and environments. <u>These first insights can then be used by the trainers to begin the theoretical part on "Introduction to VR" to point out differences on virtual, augmented and mixed reality.</u></p> <p><u>How this will be achieved:</u> For this game, each person must first introduce themselves to the group and then make three statements about themselves. This works best when you give the group some time to think of their statements and write them down if they need. Once one person makes their statements, the rest of the group must guess, or vote on, which statement is the truth. It should be played individually. It could work well to get each group member to write down their own answers and see who gets the most correct.</p>	<p>Type: Ice breaker game Name: Two Truths And A Tale</p>	<p>Post-Its, Pens</p>
30	<p><b>Introduction to the field of VR</b></p>	<p>Type: PowerPoint Presentation</p>	<p>ViralSkills_Unit 1_Introduction to VR.pptx</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p><u>Main aim:</u></p> <p>The main aim of this first theoretical part is to provide all participants with an overview on recent developments and use of VR technology and software in various context (e.g. arts, medicine, news, etc.). By providing a VR &amp; AR Ecosystem map outlining information on application areas and technology providers participants will learn to understand the Reality-virtuality continuum and be able to distinguish between mixed reality, augmented reality and virtual reality.</p>		
30	<p><b>Discussion with participants regarding their first experiences with VR</b></p> <p><u>Main aim:</u></p> <p>The main aim of this first discussion build is to give participants the opportunity to ask questions regarding the first theoretical part. Further, participant should report and discuss about their first experiences, fears, risks and future potentials of VR hard- and software and various usage scenarios and areas of application (as outlined in the introduction).</p>	Type: Discussion	
15	Break		
30	<p><b>Introduction to hard- and software (Focus – Stand-Alone):</b></p> <p>The previous discussion on pro's and con's will be used by the trainer to report on the state of the art of hardware and software developments; explanation of different hardware and software (focus stand-alone); explanation of requirements; explanation of do's and don'ts; hardware</p>	Type: Visual presentation of different stand-alone hardware systems; Powerpoint Presentation of different hardware systems	VR Headsets CardBoard ViralSkills_Unit 1_Introduction to VR.pptx

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	headsets will be given out; explanation of recommendations of external experts (including information on potential health risks in connection with VR (simulator sickness, dizziness))		
30	<p><b>Introduction to hard- and software (Focus – PC-based):</b></p> <p>The previous discussion on pro's and con's will be used by the trainer to report on the state of the art of hardware and software developments; explanation of different hardware and software (focus PC-based); explanation of requirements; explanation of do's and don'ts; hardware headsets will be given out; explanation of recommendations of external experts (re. IO1)</p>		PC-based VR system ViralSkills_Unit 1_Introduction to VR.pptx
15	Break		
30	<p><b>Introduction to hard- and software (Focus – Smartphone):</b></p> <p>The previous discussion on pro's and con's will be used by the trainer to report on the state of the art of hardware and software developments; explanation of different hardware and software (focus smartphone-based); explanation of requirements; explanation of do's and don'ts; hardware headsets will be given out; explanation of recommendations of external experts (re. IO1)</p>	Type: Visual presentation of one smartphone-based system; Powerpoint Presentation of different hardware systems	CardBoard Smartphone-based VR systems ViralSkills_Unit 1_Introduction to VR.pptx
30	<b>Question &amp; Answer Session</b>	Type: Discussion	

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
<b>References/Sources</b>	<p>Bezegová, B., Ledgard, M., Molemáker, R., Oberc, B., Vikos, A. (2019), <i>Virtual Reality and its potential for Europe</i>, Ecorys, <a href="https://ec.europa.eu/futurium/en/system/files/ged/vr_ecosystem_eu_report_0.pdf">https://ec.europa.eu/futurium/en/system/files/ged/vr_ecosystem_eu_report_0.pdf</a>.</p> <p>Chalhoub J., Ayer S. K. (2018), <i>Using Mixed Reality for electrical construction design communication</i>, <i>Automation in Construction</i>, Volume 86, February 2018, pp. 1-10.</p> <p>Gamper, H. (2019). <i>Audio augmented reality in telecommunication</i>. Diploma Thesis, Graz University of Technology, Graz.</p> <p>Liarokapis F., Mourkoussis N., White M., Darcy J., Sifniotis M., Petridis P., Basu A., Lister P.F. (2004), <i>Web3D and augmented reality to support engineering education</i>, <i>World Trans. Eng. Technol. Educ.</i>, 3, pp. 11-14.</p> <p>Luckey, P., on BBC (2012) <i>Oculus Rift virtual reality headset gets Kickstarter cash</i>. BBC News.</p> <p>Maravilla, M. M., Cisneros, A., Stoddard, A., Sretching, D., Murray, B., Brian K., Redmiles, E. (2019), <i>Defining virtual reality: Insights from research and practice</i>, <i>iConference 2019 Proceedings</i>.</p> <p>Milgram P., Kishino F. (1994), <i>Taxonomy of mixed reality visual displays</i>, <i>IEICE Transactions on Information and Systems</i>, pp. 1321-1329.</p> <p>Milgram, P., Takemura H., Utsumi, A. &amp; Kishino, F. (1994), <i>Augmented Reality: A class of displays on the reality-virtuality continuum</i> - <i>Proceedings of Telemanipulator and Telepresence Technologies</i>. pp. 2351–34.</p> <p>Rauschnabel, P. A., Brem, A., Ro, Y.K. (2015), <i>Augmented Reality Smart Glasses: Definition, Conceptual Insights, and Managerial Importance</i>, <i>Working Paper</i>, The University of Michigan-Dearborn.</p> <p>Sherman, W. R., Craig, A. B. (2002) <i>Understanding Virtual Reality: Interface, Application, and Design</i>, Morgan Kaufmann, San Francisco, CA.</p> <p>Zobel, B., Werning, S., Berkemeier, L., &amp; Thomas, O. (2018) <i>Augmented- und Virtual-Reality-Technologien zur Digitalisierung der Aus- und Weiterbildung – Überblick, Klassifikation und Vergleich</i>, IN:Thomas, O., et al. (2018) <i>Digitalisierung in der Aus- und Weiterbildung</i>, Springer-Verlag GmbH, Germany.</p>		



UNIT 2- VR in Education & for Adult Learning		Duration	4 Hours
<b>Learning Outcomes</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Competences</b>
	<ul style="list-style-type: none"> <li>- explain the potential of VR for learning processes</li> <li>- explain the potential of VR in education in general</li> <li>- explain the potential of VR in adult education</li> <li>- summarize the academic discussion's state of the art concerning the usage of VR in education and adult education referring to pedagogic science, but also related fields such as social science or psychology</li> </ul>	<ul style="list-style-type: none"> <li>- compare the state of the art of VR learning inside and outside of Europe</li> <li>- allocate different examples of VR learning software to different didactical approaches</li> <li>- decide for which purposes VR is a suitable learning tool</li> </ul>	<ul style="list-style-type: none"> <li>- determine suitable fields of application for VR learning in adult education based on the knowledge acquired</li> </ul>
<b>Requirements</b>	<p>PC, projector, flip charts, markers and pens, sticky dots, tape or pins, slips of paper</p>	<b>Notes and recommendations for trainers</b>	<p>It would be ideal for trainers to read chapter 2 "VR and Learning – A pedagogic Point of View" and here particularly chapter 2.1 of the Viral Skills Compendium as well as chapter 3 "Country Comparison" to gain a broader view of the topics covered. For further preparation have a look at the references at the bottom and the notes in the ppp.</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
15 mins	<p><b><u>Introduction and Overview of Unit 2 &amp; Introductory Exercise:</u></b></p> <p>For the introduction of Unit 2 first an overview of the contents addressed will be provided using the ppp.</p> <p>In order to gain an impression of the trainees' prior knowledge of the topic addressed in this unit, participants are asked to assess their existing knowledge about VR in education &amp; for adult learning. In this context the method "The target" can be used in a modified way. This exercise will be repeated at the end of the unit to check if the existing knowledge has increased.</p> <p><i>A detailed description of the exercise can be found in the ppp and in the notes beneath the slide!</i></p>	<p>Type: Presentation Name: - &amp; Type: Self-Assessment Exercise Name: "The Target" (in German: "Die Zielscheibe") (modified)</p>	<p>Type: PPP File name: ViralSkills_Unit 2_VR in Education &amp; Adult Learning.pptx</p> <p>Have a look at the ppp section "Introductory Exercise" to guide the activity for this lesson.</p>
50 mins	<p><b><u>VR in Education: Global Comparison – State of the art</u></b></p> <p><b>Overview of the state of the art of VR learning within the EU:</b></p> <p>The lesson starts with a discussion. Participants are asked to brainstorm on the fields that they think that VR is effectively being used for education purposes nowadays. Focus should be laid on European developments. Ideas are ideally written down on a flipchart.</p>	<p>Type: Brainstorming-Exercise in combination with Group Discussion Name: -</p> <p><i>Alternatively:</i> Type: Presentation of video Name: -</p> <p>&amp;</p>	<p>Type: PPP File name: ViralSkills_Unit 2_VR in Education &amp; Adult Learning.pptx</p> <p>Have a look at the ppp section "Global Comparison" to guide this lesson and the mentioned activities.</p> <p>Suggested video to use: <a href="https://www.youtube.com/watch?v=-Kovxf6g0mo">https://www.youtube.com/watch?v=-Kovxf6g0mo</a></p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>Alternatively, the discussion can be started with the suggested video (or any other video relevant to the topic) which shows some developments with VR to trigger the trainees' interest.</p> <p>After that, the ppp can be used by the trainer to present the relevant information and to refer to the collected ideas.</p> <p><b>Overview of VR learning and development in Asia (Japan &amp; China) and in the USA</b></p> <p>The ppp is used to show relevant fields and examples in which VR is used in China, in Japan and in the USA.</p> <p>Additionally, trainees could be asked to find at least three similarities as well as three differences concerning the developments of VR learning in the countries discussed. This exercise could be either carried out in pairs or in groups of three people. For support, learners could be provided with the relevant parts of the sections 3.1, 3.2 and 3.3 of the Viral Skills Compendium which refer to these developments in Europe, in Asia (Japan &amp; China) and the USA. In order to share the results, findings could be discussed in class.</p>	<p>Type: Presentation Name: -</p> <p>&amp;</p> <p>Type: Pair Work or small Group Work with subsequent discussion Name: -</p>	
10 mins	Break		

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
60 mins	<p><b><u>VR in Education: Academic Discussions (I)</u></b></p> <p>In this part of the unit the trainer provides insight into the academic discussions concerning VR in education and VR learning in general. Further, activating questions and little exercises make sure that learners reflect the topic. In order to keep the learners' attention, after 60 minutes a break is recommended.</p> <p><b>Introduction to “VR as a learning tool” &amp; its Potentials</b></p> <p>In order to introduce the topic learners are asked to brainstorm about the potentials VR might have in terms of learning in general. Ideas can be either collected on a flip chart or the digital pinboard “Padlet”.</p> <p>After that, the trainer presents potentials and the unique characteristics of VR as a learning tool from academic points of view and refers to the ideas and results collected.</p> <p><b>Virtual Realities as Virtual Learning Environments</b></p> <p>After the introduction the focus is laid on different Virtual Learning Environments (VLEs) described by Schwan &amp; Buder (2006), Weise &amp; Zender (2017) and suggested by Klampfer (2017).</p> <p>In order to relate these VLEs with practical examples, trainees are asked even before the more detailed</p>	<p>Type: Brainstorming-Exercises with different visualization methods Name: - &amp; Type: Presentation Name: -</p>	<p>Type: PPP File name: ViralSkills_Unit 2_VR in Education &amp; Adult Learning.pptx</p> <p>Have a look at the ppp section “Academic Discussions” to guide this lesson and the mentioned activities.</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>presentation of the VLEs by the trainer, to think of VR Learning Software and Apps they know and to write them on slips of paper. After the break, learners should relate their examples to the different VLEs and didactical approaches (<i>see description of the exercise beneath</i>).</p>		
15 mins	Break		
30 mins	<p><b><u>VR in Education: Academic Discussions</u></b> (II)</p> <p><b>Exercise: Virtual Realities as Virtual Learning Environments</b></p> <p>After the break the trainer summarizes together with the trainees the core points heard about the VLEs. After that, learners are asked to relate their noted VR learning software examples to the different VLEs and didactical approaches and to explain their decisions. Examples and reasons for decisions should then be discussed in class. Ideally a flip chart with the different VLEs is prepared, making it possible to pin the paper slips with the examples to the adequate VLEs. <i>For a more detailed description of the exercise, have a look at the ppp and the notes under the slides!</i></p> <p><b>Aspects to consider</b></p> <p>Conclusively, aspects are presented by the trainer which derive from academic discussions and studies</p>	<p>Type: Matching Exercise with subsequent Group Discussion</p> <p>Name: -</p> <p>&amp;</p> <p>Type: Presentation</p> <p>Name: -</p>	<p>Type: PPP</p> <p>File name: ViralSkills_Unit 2_VR in Education &amp; Adult Learning.pptx</p> <p>Have a look at the ppp section "Academic Discussions" to guide this lesson and the mentioned activities.</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	and which should be considered when using VR in education.		
10 mins	<p><b><u>VR for Adult Learners: Overview of Academic Discussions</u></b></p> <p>Regarding this part of the unit a short overview of the academic discussions concerning VR for adult learning will be presented by the trainer. Further, the topic "VR &amp; Adult Training" will be introduced by referring to academic research.</p>	Type: Presentation Name: -	Type: PPP File name: ViralSkills_Unit 2_VR in Education & Adult Learning.pptx  Have a look at the ppp section "Overview of Academic Discussions" to guide this lesson.
5 mins	Break		
35 mins	<p><b><u>VR for Adult Learners: VR &amp; Adult Training</u></b></p> <p>In this last 35 minutes potentials as well as fields of application of VR-Training for adults are presented.</p> <p>In order to provide the trainees with examples, one or two short videos of training scenarios could be presented.</p> <p><i>Suggestions for videos can be found in the ppp beneath the slides.</i></p> <p>To conclude, the trainer summarizes together with the trainees the key points of the whole unit by answering and discussing the question for which purposes and fields VR can be considered as suitable learning and teaching tool.</p>	Type: Presentation Name: - & Type: Presentation of videos Name: - & Type: Group discussion Name: -	Type: PPP File name: ViralSkills_Unit 2_VR in Education & Adult Learning.pptx  Have a look at the ppp section "VR & Adult Training" to guide this lesson.  (Links for videos Videos can be found in the ppp)

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	Before the evaluation and feedback exercise, time for open questions is provided.		
10 mins	<p><b><u>Evaluation &amp; Feedback</u></b></p> <p>As already mentioned above for this final exercise the method “The target” is used again to visualize whether the learners’ knowledge has increased or not.</p> <p>Additionally, each trainee gets a slip of paper with another target on it. Instead of a self-assessment this target should be used to evaluate Unit 2, including the didactical methods used, the trainer performance, the content presented and addressed and the time-management. For further feedback they can use the backside of the paper. The slips of paper are then collected by the trainer. If desired, trainees can also give directly feedback to the trainer.</p> <p>When necessary also the results on the self-assessment target can be discussed.</p> <p>After that, the trainer will end the morning lesson (Unit 2).</p>	<p>Type: Evaluation- and Feedback-Exercise</p> <p>Name: “The Target” (in German: “Die Zielscheibe”)</p>	<p>Type: PPP</p> <p>File name: ViralSkills_Unit 2_VR in Education &amp; Adult Learning.pptx</p> <p>Have a look at the ppp section “Evaluation &amp; Feedback” to guide these final exercises.</p>

**References/Sources**

- Christou, C. (2010). Virtual Reality in Education. In A. Tzanavari, & N. Tsapatsoulis, *Affective, Interactive and Cognitive Methods for E-Learning Design: Creating an Optimal Education Experience* (pp. 228-243). Hershey: IGI Global.
- Erwachsenenbildung.at (2016, February 05). Die Zielscheibe: eine visuelle Evaluationsmethode. Retrieved from <https://erwachsenenbildung.at/aktuell/nachrichten/8236-die-zielscheibe-eine-visuelle-evaluationsmethode.php>
- Klampfer, A. (2017). Virtual/Augmented Reality in Education. Analysis of the Potential Applications in the Teaching/Learning Process. Athen: ATINER'S Conference Paper Series EDU2017-2214.
- Schwan, S., & Buder, J. (2002). Lernen und Wissenserwerb in virtuellen Realitäten. In: G. Bente, N. C. Krämer, & A. Peterson (Eds.), *Virtuelle Realitäten* (pp. 109-133). Göttingen: Hogrefe Verlag.
- Schwan, S., & Buder, J. (2005). *Virtuelle Realität und E-Learning*. E-teaching.org. Retrieved from <https://www.e-teaching.org/didaktik/gestaltung/vr/vr.pdf>
- Weise, M., & Zender, R. (2017, September 5). *Interaktionstechniken in VR-Lernwelten*. Paper presented at Proceedings of DeLFI and GMW Workshops, Germany. doi: <http://ceur-ws.org/Vol-2092/paper13.pdf>



UNIT 3 - VR FOR LOW-SKILLED/QUALIFIED PERSONS			Duration
			4 Hours
Learning Outcomes	Knowledge	Skills	Competences
	<ul style="list-style-type: none"> <li>- explain characteristics of the various groups of low-skilled/-qualified persons</li> <li>- explain specific requirements in working with this target group</li> </ul>	<ul style="list-style-type: none"> <li>- create suitable learning environment for this target group using VR</li> <li>- recommend a minimum of 10 VR apps featured in the E-Thek</li> </ul>	<ul style="list-style-type: none"> <li>- determine suitable VR apps from the Viral Skills E-Thek for a certain group of low-skilled/-qualified persons</li> </ul>
Requirements	<p>Flipchart paper, post-it notes, markers, access to the E-Thek, laptop and projector.</p>	Notes and recommendations for trainers	<p>The aim of this workshop is to build on the existing skills and experiences of adult educators and then to introduce how VR can be useful in engaging and motivating the project target group. It is important to capture the experience of those in the training group and harness this in order to enrich the learning.</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
60 mins	<p><b>Understanding the Target Group</b></p> <p>The trainer facilitates a short discussion and brainstorming exercise with participants in order to define what we mean by “low-skilled/low-qualified” or “marginalised learners”.</p> <p>The purpose of this discussion is to support participants to share their experiences of working with the project target group and together to agree upon a common definition of the target group. This will be important in terms of our work throughout the rest of the training programme.</p> <p>Working in small groups (up to 4 people) participants are invited to consider the following two questions:</p> <ol style="list-style-type: none"> <li>1. From your experience, who are low-skilled/low-qualified marginalised adult learners?</li> <li>2. What are their characteristics?</li> </ol> <p>Once everyone has made a full contribution, invite each small group to create a definition of “low-skilled/low-qualified marginalised adult learners”. (Hint: you can use the E-Thek Chapter 2 to help you here!).</p> <p>To conclude the exercise, the trainer reviews all definitions and supports the participants to choose the best definition that validates their experiences.</p>	Brainstorming activity in small working groups	Flipchart paper; post-it notes and markers
45 mins	<p><b>Engaging low-skilled/low-qualified learners through education</b></p> <p>This is an opportunity for participants to share the challenges they face in engaging and supporting this target group and</p>	Brainstorming activity in small working groups	Flipchart paper; post-it notes and markers

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>sharing with each other strategies and approaches that they have used previously that have proven successful.</p> <p>Again working in small groups (feel free to change the groups by moving one person in each group – to create a new dynamic and new group); ask the participants to consider the following questions and capture their responses on flip-chart sheets:</p> <ol style="list-style-type: none"> <li>1. What challenges do you face in motivating them to learn and engage?</li> <li>2. What strategies have you used to overcome these challenges?</li> </ol> <p>A nominated spokesperson for each group will present back to the wider group the key points from the group</p>		
15mins	<b>Break</b>		
30mins	<p><b>How VR can be used to engage the project target group</b></p> <p>Unit 1 explained the main elements of VR both the software and hardware and Unit 2 explained the role of VR in education; in this session we will present some initial ideas and strategies of how VR can be used to work with low-skilled and low-qualified adults</p> <p>The trainer will use the prepared PPT presentation to introduce VR in this specialist area and show real-life examples/ case studies (5) of how education providers are currently using VR to engage and motivate adult learners.</p>	<p>Presentation using PPT to the participants</p>	<p>ViralSkills_Unit 3.1_VR for low-skilled and low-qualified persons.pptx</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>Once the presentation is concluded; participants will have an opportunity to ask questions or provide short feedback on their initial reactions to the PPT.</p> <p>Note: the purpose of this session is to offer practical and realistic evidence of how VR can and is working in adult education and learning settings.</p>		
45mins	<p><b>VR Apps that work for adult education</b></p> <p>From the E-Thek, we have identified 10 Apps that are suitable for working with the project target group. Using a PPT, the trainer will present these collection of VR Apps and outline why they have been chosen and their specific benefit relevant to the project target group.</p>	Presentation using PPT to the participants	ViralSkills_Unit 3.2_E-Thek for low-skilled and low-qualified persons.pptx
5mins	<p><b>Break – stretch legs</b></p>		
30mins	<p><b>Mix and Match Game</b></p> <p>Using prepared flash cards and working in pairs, participants are invited to match the target group (there will be a number of characters illustrated on the cards that typically make up this target group) with the 10 Apps presented (the image/logo of the 10 Apps) will be on the other set of flash cards.</p> <p>One the matching has been completed; participants will be asked to explain in one sentence what they made each specific match on a feedback sheet.</p>	Working in pairs and using Viral Skill Flash Cards	<p>ViralSkills_Unit 3.3_Flashcards_E-Thek.pdf</p> <p>ViralSkills_Unit 3.3_Flashcards_Target Group.pdf</p> <p>ViralSkills_Unit 3.5_Feedback Sheet.pdf</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
10mins	<p><b>Feedback circle</b></p> <p>The trainer invites all participants to give a short feedback on the session with each participants ask the following question:</p> <ul style="list-style-type: none"> <li>▶ What was the one learning nugget that you are taking away from the session?</li> </ul>		
<b>References/Sources</b> -			

UNIT 4.1 – Mainstreaming Viral Skills I			Duration
			4 Hours
Learning Outcomes	Knowledge	Skills	Competences
	<ul style="list-style-type: none"> <li>- explain concept and advantages of VR learning to peers (adult education trainers) and superiors (adult education managers)</li> <li>- explain concept and advantages of VR learning to policy makers</li> </ul>	<ul style="list-style-type: none"> <li>- plan VR sessions in own adult trainings</li> <li>- conduct VR sessions in own adult trainings</li> <li>- plan VR sessions in own adult trainings for low-skilled/-qualified persons</li> <li>- conduct VR sessions in own adult trainings for low-skilled/-qualified persons</li> </ul>	<ul style="list-style-type: none"> <li>- implement the Viral Skills training programme other educators or managers within adult education</li> </ul>
Requirements	Pens, paper, Post-its/cards, flipchart, PC/laptop, projector.	Notes and recommendations for trainers	Read through the main Powerpoint Presentation (PPP) provided to get familiar with the structure and contents of this unit.

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
5 min.	<p><b>Welcome</b> participants and present the main aim as well as the agenda of this unit using the PPP provided.</p> <p><u>Main aim:</u> Use what you have learned in previous units in your personal context. When the unit is finished, you will have a specific plan how to use your Viral Skills competences in your professional everyday life.</p> <p><u>How will we achieve this?</u> First, we will reflect on what you have learned and then you will have time to think about fields of application in your training offers. We will start with a big task in</p>	<p><b>Type:</b> Presentation</p> <p><b>Name:</b> Welcome/Outlook on unit</p>	<p><b>Type:</b> PPP</p> <p><b>Name:</b> ViralSkills_Unit 4.1_Mainstreaming Viral Skills I.pptx</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	the first session and you can continue and present it in the next session.		
30 min.	<p><b>Reflection On Key Elements From Previous Units</b></p> <p>Participants are divided into two groups. Each group is provided with one Flipchart paper and various post-its. The task is to write down the most important key points in relation to:</p> <p>a) the technical aspects of VR in an educational setting and b) the aspects relevant when working with the target group of adults and low-qualified/-skilled persons.</p> <p>Participants are expected to write down the aspects that they consider <u>most important personally</u>.</p> <p>One group will start with the VR topic and the other group will focus on the target groups, then they switch and add their post-its to the flipchart of the other group.</p> <p>For each round, they have 5 minutes.</p> <p>Then, one representative of each group will present the findings on their flipchart and cluster the post-its if necessary.</p>	<p><b>Type:</b> Group work <b>Name:</b> Post-It-Reflection</p>	<p><b>Type:</b> Flipchart, Pens, Post-its</p>
30 min.	<p><b>Personal Application of VR in Training Offers</b></p> <p>Each participant receives the printed PDF template and answers the reflection questions provided. Finally, they should create a top 10 list of their points for consideration when integrating VR in their own training offers. They can share and discuss their answers among each other or in the plenum on voluntary basis.</p> <p>As a trainer, be available for support during the exercise and be sure to give them opportunity to ask questions at the end of</p>	<p><b>Type:</b> Individual Work <b>Name:</b> Guided Reflection</p>	<p><b>Type:</b> PDF Template <b>Name:</b> ViralSkills_Unit 4.2_My Top 10.pdf</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	the exercise (about 5-10 minutes before time is up). Inform them that there will be a group discussion in the next session, where their questions can be discussed in detail.		
10 min.	<b>Break</b>		
45 mins.	<p><b>Elevator Pitch</b></p> <p>Briefly explain what an Elevator Pitch is using the PPP provided. On basis of the previous reflection work, participants are asked to prepare an elevator pitch on the benefits of VR in educational settings, while keeping in mind their own structural environment. They should imagine that they have to convince their employer, their funding partner/policy maker or their target group why the use of VR would be beneficial to achieve learning goals. In the end, ask a few participants to share their elevator pitch.</p> <p><b>Two additional options for LTTA/Pilots:</b></p> <ol style="list-style-type: none"> <li>Hand out (colourful) cards where participants should write down their pitch or key statement. Collect them and make a photo that we can use in social media or in our pilot reports. If possible, individual photos of the cards would be fantastic. Participants should then get back their cards/pitches.</li> <li>Ask participants if they would be okay to be filmed while presenting their pitch, This would make fantastic videos for our Social Media and Website. Please be sure to collect written permission in order to use the video further (template provided).</li> </ol>	<p><b>Type:</b> Individual Work  <b>Name:</b> Elevator Pitch</p>	<p><b>Type:</b> PPP. Paper/Cards, pens.  <b>Name:</b> ViralSkills_Unit 4.1_Mainstreaming Viral Skills 1.pptx</p> <p><i>If possible, video camera/smartphone to film the elevator pitches (only with permission!)</i></p> <p><b>GDPR Template Name:</b>  ViralSkills_Unit 4.3_GDPR Permission for videos.pdf</p>



Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
10 min.	<b>Break</b>		
15 mins.	<p><b>Didactical Development of VR Lesson Plans (Instructions)</b></p> <p>In this exercise, participants have the opportunity to develop their own lesson plan featuring VR. This builds on the previous activities as well as on the experience and individual professional context. They are provided with a template and guiding questions, but they can also use or create their own template if desired.</p> <p>The goal is to design or adapt a lesson of their training featuring VR elements, which they can use afterwards in real life context. They will start the exercise in this session and continue the work in the next. At the end, they may present their work.</p> <p>They may work alone or in pairs. As a trainer, ask participants about their desired topics and support them in finding a partner with a similar topic or target group.</p> <p>They are provided with a lesson plan template and furthermore, the templates the Viral Skills project team used for the technical analysis of VR hardware as well as the E-Thek template are handed to them too.</p>	<p><b>Type:</b> Presentation. <b>Name:</b> -</p>	<p><b>Type:</b> PPP. <b>Name:</b> ViralSkills_Unit 4.1_Mainstreaming Viral Skills 1.pptx</p> <p><b>Type:</b> PDF/MS Word Templates:</p> <ul style="list-style-type: none"> <li>- Lesson Plan</li> <li>- Techn. VR Analysis</li> <li>- E-Thek</li> </ul> <p><b>Name:</b> ViralSkills_Unit 4.2_My Top 10.pdf</p>
90 min.	<p><b>Didactical Development of VR Lesson Plans (Working phase I)</b></p> <p>After choosing their topic and partner (if applicable), participants start working on their lesson plan.</p> <p>As a trainer, be available for support and feedback. Remind them to take a break when they need one.</p>	<p><b>Type:</b> Individual/Pair Work <b>Name:</b> Lesson Plan development</p>	<p><b>Type:</b> Pens, paper, Flipchart or digital device (e.g. laptop)</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	5-10 minutes before the end of the session, remind participants to finish their work so that they may continue in the next session.		
<b>References/Sources</b>		-	

UNIT 4.2 – Mainstreaming Viral Skills II			Duration
			4 Hours
Learning Outcomes	Knowledge	Skills	Competences
	<ul style="list-style-type: none"> <li>- explain concept and advantages of VR learning to peers (adult education trainers) and superiors (adult education managers)</li> <li>- explain concept and advantages of VR learning to policy makers</li> </ul>	<ul style="list-style-type: none"> <li>- plan VR sessions in own adult trainings</li> <li>- conduct VR sessions in own adult trainings</li> <li>- plan VR sessions in own adult trainings for low-skilled/-qualified persons</li> <li>- conduct VR sessions in own adult trainings for low-skilled/-qualified persons</li> </ul>	<ul style="list-style-type: none"> <li>- implement the Viral Skills training programme other educators or managers within adult education</li> </ul>
Requirements	Pens, paper, flipchart, PC/laptop, projector.	Notes and recommendations for trainers	

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
50 min.	<p><b>Didactical Development of VR Lesson Plans (Working phase II)</b></p> <p>Participants continue to work on their lesson plans featuring VR elements.</p> <p>Trainers start asking participants, who would like to present their lesson plan. Trainers are free to use this and the next time slot</p>	<p><b>Type:</b> Individual/Pair Work</p> <p><b>Name:</b> Lesson Plan development</p>	<p><b>Type:</b> Pens, paper, Flipchart or digital device (e.g. laptop)</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	for continuing the work or for presentations in a flexible matter, tailored to the needs of participants.		
10 min.	<b>Break</b>		
50 min.	<b>Presentation of individual lesson plans</b> 5 persons/teams à 10 min. Ask participants to note their questions/comments for the discussion that comes next.	<b>Type:</b> Individual/Pair Work <b>Name:</b> Lesson Plan presentation	<b>Type:</b> Pens, paper, Flipchart or digital device (e.g. laptop)
10 min.	<b>Break</b>		
50 min.	<b>Group Discussion.</b> Participants are asked to give feedback about the lesson plan presentations from the previous activity. They also have time to discuss the questions they have collected in the previous session during the self-reflection about personal fields of application of VR. Trainers are asked to steer the conversation and moderate the discussion. There are also prompts provided in the PPP. In this discussion, participants have opportunity to exchange opinions and recommendations on how they can and will use VR in their trainings in the future.	<b>Type:</b> Discussion. <b>Name:</b> Plenum Discussion.	<b>Type:</b> PPP. <b>Name:</b> ViralSkills_Unit 4.4_Mainstreaming Viral Skills II.pptx
10 min.	<b>Break</b>		
30 min.	<b>The Viral Skills Training Programme – Become an EU Viral Skills Educator Multiplier!</b> As a final input, the curriculum of the Viral Skills Training Programme is introduced to participants. They are provided with all necessary information so that they may use this training further in their own professional environment.	<b>Type:</b> Presentation. <b>Name:</b> -	<b>Type:</b> PPP. <b>Name:</b> ViralSkills_Unit 4.4_Mainstreaming Viral Skills II.pptx

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
5 min.	<p><b>Instructions for Self-directed Learning Phase</b></p> <p>Trainers give an outlook on Webinars and present the Webinar Schedule. Participants are asked to subscribe to the Viral Skills YouTube Channel and like the Viral Skills Facebook page in order to stay up-to-date with the developments of the project.</p>	<p><b>Type:</b> Presentation. <b>Name:</b> -</p>	<p><b>Type:</b> PPP. <b>Name:</b> ViralSkills_Unit 4.4_Mainstreaming Viral Skills II.pptx</p>
10 min.	<p><b>Feedback Gathering</b></p> <p>Participants are asked to give feedback on the training course they experienced. A Google Form is distributed as link (and QR code) on the PPP slide and if necessary, the feedback form is also available as PDF for printing.</p>	<p><b>Type:</b> Google Form. <b>Name:</b> Feedback Gathering.</p>	<p><b>Type:</b> Link/PDF. <b>Name:</b> ViralSkills_Unit 4.4_Mainstreaming Viral Skills II.pptx</p>
15 min.	<p><b>Flashlight Method</b></p> <p>To close the session, the Flashlight Method is used. Participants are asked to share one key word/phrase/sentence that summarises their experiences during this training. Then, trainers</p>	<p><b>Type:</b> Group Work. <b>Name:</b> Flashlight Method.</p>	<p><b>Type:</b> PPP. <b>Name:</b> ViralSkills_Unit 4.4_Mainstreaming Viral Skills II.pptx</p>
<b>References/Sources</b>		-	

UNIT 5- Immersive Engaging Experiences			Duration
			4Hours
Learning Outcomes	Knowledge	Skills	Competences
	<ul style="list-style-type: none"> <li>- list at least 3 different VR hardware providers</li> <li>- list at least 3 different VR software stores</li> <li>- remember pro's and con's of at least 3 VR providers</li> <li>- identify and recognise symptoms of a negative VR experiences</li> </ul>	<ul style="list-style-type: none"> <li>- set up VR hardware (VR studio)</li> <li>- navigate VR app store successfully</li> <li>- navigate VR menu's successfully</li> <li>- use VR controller successfully</li> <li>- have positive first VR experience</li> <li>- react constructively in case of negative VR experience</li> </ul>	<ul style="list-style-type: none"> <li>- determine the most suitable VR hardware system for their need</li> </ul>
Requirements	PC, projector, various VR systems, internet connection, mobile devices of participants with internet connection, flipchart	Notes and recommendations for trainers	Trainers should be familiar with the VR devices they offer, have them installed and be able to answer basic questions about the requirements and hardware based facts concerning the setup. Trainers should also have tested a few VR apps before.

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
5 min	<p><b>Welcome participants.</b></p> <p><u>Main aim:</u> First encounter with Virtual Reality, which by its pure definition can deliver experiences and interactions for learners that are either not practical or not possible in the 'real world', provides an unparalleled way to immerse and captivate learners of all ages.</p> <p><u>How will we achieve this?</u> By providing participants with the experience of VR, we are able to access enhanced and sensory-based experiential learning.</p>	Type: Presentation Welcome	Type: PPP Name: ViralSkills_Unit 5.1_Immersive Engaging Experiences.pptx

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
45 min	<p><b>DO YOUR RESEARCH!</b></p> <p>As with any technology purchase, understanding what options are available in the market, what the VR systems can do, their advantages, limitations and their costs, are the key aspects to guide us towards the most effective solution for our needs. Participants have learned about various VR hardware systems in the morning sessions, so they are now asked to review them personally. Participants should be offered various VR devices that they can touch and look at. They are asked to get familiar with the VR solutions and fill in the PDF handout according to their own personal opinion of the VR hardware. Additionally, they can read the VR Digest of the Viral Skills project and research additional information online if needed. Participants can also use this time to try a <b>tutorial</b> of the VR device of their choice! In the tutorial, they learn basic functions of the VR device and the controllers. It is <b>strongly recommended</b> that participants try the tutorial first before they try another VR software application in order to avoid negative experiences and overstimulation.</p>	<p>Type: Individual work Name: Research and Assessment</p>	<p>Type: PDF Name: IO3_ViralSkills_Unit 5.2_DoYourResearch.pdf</p>
10 min	<p><b>Break</b> – as a trainer, use the time to prepare the PC's if applicable. See activity below for more info.</p>		
40 min	<p><b>INTEGRATE VR SYSTEM WITH ICT RESOURCES (switched activities)</b></p> <p>In this activity, participants should review the list they have completed in the previous task and reflect on the compatibility with their own available ICT resources. Virtual Reality systems may have a different operating. This leads to many important questions such as:</p>	<p>Type: Group Work and cooperative learning</p>	<p>Materials: VR quickstart guide, controllers quickstart guide</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<ul style="list-style-type: none"> <li>• Will they connect with our current network infrastructure?</li> <li>• Will they work with our other Information Technology devices? How will we control usage?</li> <li>• Are there any specific additional requirements we will need to implement?</li> <li>• As a trainer, ask participants if they have more questions about the compatibility of VR hardware with their available devices. Solve the questions together.</li> </ul> <p><b>Fully understanding how this new technology will fit within existing infrastructure and resources is a key consideration.</b></p> <p>To achieve this goal the participants will learn with the help of the technical guide to install the VR system on the PCs available.</p> <p>Participants should form groups and try the following steps on their own. If in question, encourage them to find a YouTube-Tutorial or a set-up guide online.</p> <p><b>Practical activity:</b> Getting started! (alternatively, participants can watch tutorials on how to setup a VR device on YouTube. Just type in the name of your VR hardware device and add "setup tutorial" – then you should be able to choose from a variety of videos.</p> <ul style="list-style-type: none"> <li>• Connecting your headset <i>Connect the HDMI and USB connectors to your computer.</i></li> <li>• Set up your controllers and if applicable, sensors in the room.</li> </ul>		

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>Connections depend on the type of controller, check the Controller Quick Start Guide</p> <ul style="list-style-type: none"> <li>Assembling your headphones if applicable.</li> </ul> <p>Headphones are recommended for a fully immersive experience.</p> <p>To achieve this goal the participants will learn with the help of the technical guide to install the VR system on the PCs available.</p> <p>Participants who are more interested in VR device that do not require a PC should inform themselves on how to set-up a stand-alone or smartphone-based VR device.</p>		
10 min	Break		
60 min	<p><b>FIND YOUR VR APPS!</b></p> <p>In this activity, participants will navigate different VR platforms (for example "Steam") that distribute content for VR users. As a trainer you have to be flexible and eager to learn together with your participants – it is likely that your participants ask questions out of your comfort zone. In this case, encourage them to find a solution online and engage them in this cooperative learning process. Use the flipchart to note most important points and the names of VR platforms.</p> <p>Participants will learn to identify the hardware and software requirements of each individual application. In particular, each participant will have to identify the platform where they can find useful applications for the activity. It is advised that participants form small groups and work on one VR device together while taking turns. They can also switch devices during the activity if wished.</p>	Type: Group work and cooperative learning	Material: Flipchart.



Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>Firstly, it is important which type of VR devices the participants are using: Stand-alone VR, PC-based VR, or Smartphone-based VR.</p> <p>A <b>stand-alone VR device</b> should be ready to go when this unit is implemented, therefore participants can already start using the VR apps that have been downloaded beforehand or they can download new apps directly via the VR headset.</p> <p>A <b>smartphone-based VR device</b> is also already set-up and VR apps are added via the phones App Store or Playstore. Participants can download new apps and start testing.</p> <p><b>PC-based VR devices</b> offer more options, but they are usually also more complex. The software that is used to download and access VR apps is different, depending on the VR system used and if it is a Windows PC or a Mac. When this unit is implemented, the correct VR software of the VR device in use should already be installed and ideally, the "Steam VR" platform is also installed.</p> <p>The participants have now time to test the VR software platforms, search for apps, download apps (if the trainer allows), and start testing the apps.</p> <p>Learners who have not yet tried a VR tutorial should start with the tutorial offered by the device they are using. Then they can test any app available.</p> <p>As a trainer, be sure to offer additional information and engage your participants to do also their own research using</p>		

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>their mobile devices. As the VR offers are constantly changing, it is not possible to provide a universal guide. Learn together with your participants and distribute new information to the whole class if applicable. Most importantly, have a watchful eye on them and warn them to use the VR devices with care in order to avoid negative experiences.</p> <p>Review again the warning signs like dizziness or headache and ask your participants to take breaks from the VR experience when needed.</p> <p>Rule of thumb is to start with VR apps that are simple and slow, avoid any overstimulation or sensory overload. Only when participants feel secure, they should try apps that include quick movements.</p>		
10 min	Break		
45 min	<p><b>PRACTICAL VIRTUAL REALITY ACTIVITY</b></p> <p>By taking turns, participants can now freely explore VR apps available and start their virtual journey. If possible, offer more than one VR device. If you have only one VR device, other participants should be sitting in a semicircle, while watching the same images on the overhead projector and follow the trainer's explanations. This is only possible with a PC-based device.</p> <p>As a trainer, if you are not sure which apps to offer, check the Viral Skills E-Thek and download a few apps presented there.</p>	Type: Group and individual work	
15 min	<b>HOW WAS IT?</b>	Type: Assessment	Materials: Flipchart

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>Ask participants about their experiences using as many of the prompts offered below as wished:</p> <p>What did they notice? Did they have a good first impression? If not, what went wrong? How can they avoid negative experiences? What symptoms do they be aware of?</p> <p>In one word, how would they summarise the first day of training?</p>		
<b>References/Sources</b>	<a href="https://store.steampowered.com">https://store.steampowered.com</a> <a href="https://edu.google.com/products/vr-ar">https://edu.google.com/products/vr-ar</a>		

UNIT 6- Introduction to the Viral Skills E-Thek			Duration
			4 Hours
Learning Outcomes	Knowledge	Skills	Competences
	<p>Extract specific information from the E-Thek</p> <p>Know at least 10 VR apps from the E-Thek</p>	<p>Explore at least 2 VR applications confidently</p>	<p>Determine the educational value of VR applications</p> <p>Move and act confidently in a virtual environment</p>
Requirements	<p>Pens, paper, Post-its/cards, flipchart, PC/laptop, projector.</p>	Notes and recommendations for trainers	<p>Read through the main Powerpoint Presentation (PPP) provided to get familiar with the structure and contents of this unit.</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
5 min.	<p><b>Welcome</b> participants and present the main aim as well as the agenda of this unit using the PPP provided.</p> <p><u>Main aims:</u> Aware what the 25 open source VR applications in the “Viral Skills E-Thek” are the most recommended ones by the partnership and how they can be utilised in adult training sessions, especially when working with low-skilled and low-qualified learners.</p> <p>Familiar with at least 10 of the 25 recommended VR applications by having applied them actively in stand-alone learning by doing sessions</p> <p>How will we achieve this? First of all we will take a tour through the different VR applications selected by the team.</p>	<p><b>Type:</b> Presentation</p> <p><b>Name:</b> Welcome/Outlook on unit</p>	<p>Type: PPP</p> <p><b>Name:</b> ViralSkills_Unit 6.1_Introduction to the Viral Skills E-Thek.pptx</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p>After the overview, the following section will explain how the different software were selected and evaluated and the applications of each of them.</p> <p>For this purpose, a template (E-Thek) has been created to facilitate data collection and to draw the appropriate conclusions. The partners have used this model with each of the VR applications, all of which are suitable for adult learners with low qualifications.</p> <p>The E-Thek is designed to analyse the VR application, with its corresponding name and category.</p>		
10min	<p><b>To guide or be guided : Welcome dynamics</b></p> <p>Participants are paired and one of the partners has his/her eyes covered with the handkerchief or the VR glasses (switched off). The other person will now guide them through the classroom, only by verbal commands.</p> <p>After this activity, they will be asked how they have felt. The activity helps to build trust and also slowly immerse into the feeling of not being aware of the outside world. This is a safety measure to avoid dangers during the use of VR glasses.</p>	<p><b>Type:</b> Trust Dynamics <b>Name:</b> Lazarillo</p>	<p><b>Type:</b> handkerchief, VR glasses, mask</p>
40 min.	<p><b>Explanation about the selection of the different VR applications and the selection criteria.</b></p> <p>The teacher explains and comments on the details and characteristics of this selection as well as the selection criteria.</p>	<p><b>Type:</b> Presentation &amp; individual work <b>Name:</b> Introduction to the Viral Skills E-Thek</p>	<p><b>Type:</b> PPP, computer <b>Name:</b> ViralSkills_Unit 6.1_Introduction to the Viral Skills E-Thek.pptx</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	Participants will have the opportunity to see the VR apps.		
10 min.	<p><b>Example and explanation of the E-Thek Template.</b></p> <p>The teacher proceeds to explain the process of creation and realization of an E-Thek template</p>	<p><b>Type:</b> Presentation</p> <p><b>Name:</b> E-thek sheet knowledge</p>	<p><b>Type:</b> PPP</p> <p><b>File name:</b> ViralSkills_Unit 6.1_Introduction to the Viral Skills E-Thek.pptx</p>
5 min.	<b>Break</b>		
45 min	<p><b>Distribution of the E-Thek sheet and Practice.</b></p> <p>The E-Thek template will be distributed among the participants and then a VR application of those selected by the team will be assigned to each participant.</p> <p>Each one of them, with the E-Thek completed, will proceed to verify the aspects that appear in it individually.</p> <p>The trainer will be willing to answer the questions of the attendees, providing feedback on the process.</p> <p>Attendees will take notes or provide feedback on the E-Thek card they have been given</p>	<p><b>Type:</b> individual work</p> <p><b>Name:</b> E-thek sheet knowledge</p>	<p><b>Type:</b> PDF -Word E-Thek/ Paper. VR Apps, Computer Laptop, VR glasses</p> <p><b>Name:</b> ViralSkills_Unit 6.2_E-Thek Template.docx</p>
15 min.	<p><b>Sharing opinions and ideas</b></p> <p>Each participant will facilitate their input on the E-Thek about the application assigned</p>		
5 min.	<b>Break</b>		
35 min.	<b>Experiment with Google Earth VR.</b>	<b>Type:</b> Individual	<p><b>Type:</b> VR App. Computer, VR glasses. Pen, paper.</p> <p><b>Name:</b> Google Earth VR</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p><b>Practice 1:</b>  <b>Each participant will try to see the places and monuments chosen as World Heritage Sites by Unesco in Europe.</b></p> <p>The facilitator or trainer guides the students through the downloading and start-up of the application.            As well as helping with the technical or methodological doubts that could appear.</p>	<p><b>Name:</b> Experimenting with Google Earth VR</p>	
15 min	Sharing opinions about the experience	<p><b>Type:</b> Individual/team  <b>Name:</b> Personal opinion, sharing.</p>	<p><b>Type:</b> paper, pen, post-it, computer, laptop.</p>
10 min.	<b>Break</b>		
25 min.	<p><b>Experiment with Within VR.</b></p> <p><b>Practice 1: CNN: Iceland is Melting.</b>            Fly over Iceland's most famous natural wonders and discover how climate change could make it all disappear.  <b>After experiencing this trip, take notes and think of ideas to avoid climate change.</b></p> <p><b>Practice 2: CNN: Toro Bravo.</b>            Every year, thousands of amateur daredevils flock to Pamplona in the hopes of coming face-to-face with Toro Bravo – the Spanish Fighting Bull. Now, witness Spain's intense and controversial spectacle, Running of the Bulls, up close like</p>	<p><b>Type:</b> individual  <b>Name:</b> Experimenting with Within</p>	<p><b>Type:</b> VR Apps  <b>Name:</b> Whithing VR.            CNN: Iceland is Melting.            CNN: Toro Bravo.</p>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
	<p><b>Take notes, write down opinions and feelings. Think about the debate: Keep it because its traditions or cancel this event.</b></p> <p><b>Why is this tradition so popular? Do animals suffer?</b></p>		
20min	<p><b>Practice 1:</b> A debate is generated and two groups are arranged according to whether they have been in favour of taking action on climate change or not.</p> <p><b>Practice 2:</b> Two groups are done for debate, depending on whether they are in favour of the San Fermin bull run or against.</p>	<p><b>Type:</b> Individual/ team</p> <p><b>Name:</b> Debate the proposals/ideas</p>	<p><b>Type:</b> pen, paper, computer, post-its</p>
5 min	<p><b>Final Contribution and Closing of Session:</b></p> <p>The participants will make their final contribution to the session by giving their opinion in a word or a short phrase about what they thought or what they took away from it.</p>	<p><b>Type:</b> Individual/team</p> <p><b>Name:</b> Word rain</p>	<p><b>Type:</b> pen, paper, computer, post-its</p>
<b>References</b>		-	



UNIT 7 – Testing VR		Duration	12 hrs (3x 4 hrs)
<b>Learning Outcomes</b>	Knowledge	Skills	Competences
	- explain the key topics and potential learning benefits of at least 10 VR apps	- explore at least 8 VR applications confidently	- determine pro's and con's for educational utilisation of the VR apps that have been tested personally - competent in applying VR sessions at own classes for adult (low-skilled and low-qualified) learners -competent to organise and implement the "Viral Skills Training Programme" for other educators or managers within adult education
<b>Requirements</b>	PC, projector, VR systems	<b>Notes and recommendations for trainers</b>	<i>Review of the Viral Skills E-thek</i>

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
60 mins	The trainer presents the list with the 25 recommended VR applications (using the E-Thek) proposed by the project and gives hardcopies to each team. A group discussion follows about what is important to be tested in each application and what not. A handout is prepared with the participation of the whole class. The handout will be used in the following activity.	presentation	Hard copies of the E-Thek content PPP: ViralSkills_Unit 7_Testing VR.pptx

Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used
1 x 2,5h 2 x 3,5h  30 min breaks	<p>Each team selects at least 3 applications from the list and completes the handout with information that will be gathered from the testing of the applications. The handout will include a field with the pro's and con's of each application for educational utilization.</p> <p>Around 40 mins is given for each team to test each application.</p>	Group work	Handout
<b>References</b>	-		

## ANNEXES

### AGENDA OF THE LTTA (AND RECOMMENDED TIME TABLE FOR FURTHER IMPLEMENTATION)

		Content
Day 1	Morning Session	<b>Unit 1</b> Introduction to the field of VR, state of the art of hardware and software developments and their pros and cons
	Afternoon Session	<b>Unit 5</b> Introduction to VR devices (glasses, tracking system, navigation tools etc.); first exploration of the 3D-360° VR environment
Day 2	Morning Session	<b>Unit 2</b> Potential VR could generally have on the educational sector; academic discussion's state of the art with concerning the usage VR adult education (EU and global)
	Afternoon Session	<b>Unit 6</b> Introduction to the "Viral Skills E-Thek" and mutual exploration of best practice VR applications for applying to adult education (Only during LTTA: Visit to best practice example 1 of VR learning within adult education → P4)
Day 3	Morning Session	<b>Unit 3</b> How VR can be specifically utilised for low-skilled and low-qualified learners and for which of the different groups (e.g. school drop outs, refugees, persons with intellectual disabilities etc.)
	Afternoon Session	<b>Unit 7.1</b> Training 1 on how to apply selected applications from the "Viral-Skills-E-Thek"
Day 4	Morning Session	<b>Unit 4.1</b> How to improve VR learning at the adult education level and how to distribute and mainstream results and outcomes of the project
	Afternoon Session	<b>Unit 7.2</b> Training 2 on how to apply selected applications from the "Viral-Skills-E-Thek" (Only during LTTA: Visit to best practice example 2 of VR learning within adult education → P4))
Day 5	Morning Session	<b>Unit 4.2</b> How to improve VR learning at the adult education level and how to mainstream its usage
	Afternoon Session	<b>Unit 7.3</b> Training 3 on how to apply selected applications from the "Viral-Skills-E-Thek"

**TEMPLATE FOR FACE-TO-FACE CONTENT DEVELOPMENT**

<b>UNIT # - NAME</b>		<b>Duration</b> ____ Hours		
<b>Learning Outcomes</b> <i>(copy from curriculum above →)</i>	<b>Knowledge</b>	<b>Skills</b>	<b>Competences</b>	
	- -	- -	-	
<b>Requirements</b>	<i>e.g. PC, projector, VR system...</i>	<b>Notes and recommendations for trainers</b>	<i>Preparation? Further reading?</i>	
Time	Training Content Description (Step-by-Step)	Didactical Method	Materials used	Sources/References
<i>Duration of activity</i>	<i>Include a description of the activity planned.</i>	<i>Type: _____ Name: _____</i>	<i>Type: ___ [PDF/PPP] File name(s): _____</i>	<i>Sources: _____</i>