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# Result 1: Open online training related to Augmented and Virtual Realities

## Follow up Report



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## Introduction

The activities to produce this result aim to produce an open online course focused on the professionals of special and Vocational Education and Training (VET) education together with the Information and Communication Technology (ICT) consultants. The consortium encompasses those target groups which makes easy to understand the needs of knowledge about the technology of non-technical teachers and the needs of knowledge about Autism Spectrum Disorder (ASD) and disability of ICT experts. In any case, the skill needs are being based as well in the feedback of external actors of the project by the distribution of surveys and by the arrangement of focus groups.

The Desk research about the last trends in Augmented Reality (AR) but specifically about Virtual Reality (VR) has been done where 360° Immersive Reality has been studied. The results of the analysis, together with the rest of the tasks accomplished, have led the consortium to the definition of a joint curriculum for VET professionals about the use of AR/VR in special education (ASD approach). The curriculum has taken into account European Union standards of VET such as ECVET, EQF and the EQAVET framework.

The project aims to develop online training materials (currently under development) according our curriculum, with focus on blended learning and where interactive training materials are being implemented.

We have evaluated the use of the authorizing tool H5P (<https://h5p.org/>) which has given very good results, as it allows our content developers to create dynamic training content that can be embedded in most of the Learning Management Systems (LMS). These tools concede the authorship of the training materials to the creators and boost the re-use and improvement of later courses based on those materials.

A transfer of knowledge, based on our course, to the consortium teachers will be done. The aim of this last step will be:

- to test and validate the training materials
- allow the team to effectively co-develop the next results of the project

## **T1.1 Skills needs in ICT sector, VET and special education**

During this task, the consortium has analyzed the skills needs in the different target learners, making special emphasis on the knowledge of special education and VET teachers about Virtual Reality and Augmented Reality and its potential use in the education of people with Autism Spectrum Disorder.

For this task we have used different tools:

1. **Desk Research:** This report has gathered various Academic Literature and Good Practices among European Projects and other kind of programs that show positive and effective uses of those technologies (Augmented Reality and Virtual Reality) in the support of people with Special Educational Needs (SEN). These optimistic results entail a starting point of research that is leading the consortium into the development of new and innovative outcomes that will increase the quality of inclusive education and the cooperation between different European entities working on the field of education and technology development.
2. **Survey:** The consortium has concluded with the distribution of a survey where professionals in the field of special education at all levels have been asked mainly about their knowledge and prospective use of Augmented and Virtual Reality in the education of ASD students. The total amount of answers from the different participating countries has been 50.
3. **Focus Group:** Two focus groups have been held:  

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- **One at national level in Spain:** The focus group started with an introduction to the project Bit the Spectrum, where the aims of the project were presented to the assistants, as well as the prospective results and the research obtained until now. Afterwards, a specific introduction to VR and AR technologies and their possible use in education was held. The main purpose of the focus group was to understand some of the needs of ASD professionals and ASD students in education.

- **One at national level in Finland:** TO COMPLETE

## T1.2 Curriculum definition

Taking into account the results of the previous activity we have designed a joint curriculum for the use of Augmented and Virtual Realities in special education (ASD approach). To create the curriculum the partnership has used their experience in EU projects and curriculum definitions.

Two documents have been released:

1. **Curriculum Template:** A template of the curriculum program has been created. The curriculum template offers a clear picture of the different elements of the joint curriculum. It serves as a guide about the structure of the training course and the characteristics of the different elements of the educational program. The Unit Description Template includes the basic information for the description of units using ECVET principles:

-The generic title of the qualification.

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-The reference of the qualification according to the EQF and NQF (National qualifications frameworks) levels.

- The learning outcomes contained in the units, in terms of knowledge, skills and competences.
- The delivery methods for the specific learning outcomes.
- The procedures and criteria for assessment of such learning outcomes.
- The ECVET points associated.

2. **Curriculum Definition:** An extra report has been also developed where all the parts of the curriculum are explained in detail, introducing at the same time the next steps to follow for the development of the content that will comprise the Online training. Four training units have been developed including:

- Unit A: The use of Technology in Special Education.
- Unit B: Special Educational Needs and Autism.
- Unit C: Methodologies for the development of exercises.
- Unit D: Extended Realities.

The curriculum has been developed following the EQAVET framework and indicating EU standards such as ECVET and EQF. The approach of Learning Outcomes has been used describing the knowledge, skills and competences each Learning Outcome.

## **T1.3 Training materials development**

The consortium is undertaking the development of the training materials according the curriculum. We are producing lessons oriented to blended learning in the form of presentation slides, interactive exercises, auto evaluation tests and audiovisuals. We will enrich them by using the authorizing tool H5P which allows us to create online and dynamic training content that could be embedded in most of the Learning Management Systems (LMS).

Those lessons will be able to be improved by adding or mixing new materials on later courses based on Bit the Spectrum.

## **T1.4 Transfer of knowledge to special education and regular teachers**

A series of webinars will be arranged internally in the partnership to pre-test the training materials. The staff directly involved in the consortium will train VET and special education teachers (LOUVI, ASPAJUNIDE) and ICT teachers using our brand-new course. We will involve external teachers as well to get extra feedback of the course. These tasks will lay down the basis of the co-creation of the methodology during the next work package.

### **Attachments**

- ☐ Desk Research
- ☐ Focus Group Summary Report
- ☐ Curriculum Template
- ☐ Curriculum Definition

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# THANK YOU!