



Accessible Learning design, implementation and accreditation

WP3: Development of the training, assessment and accreditation

**R3.2 ALdia training programme:
Description of methodologies and tools**

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Table of contents

1. Introduction	1
2. Objectives of the ALdia training programme: description of methodologies and tools	3
3. ALdia learning approach and methodology	5
3.1. ALdia learning approach	5
3.2. ALdia Methodology.....	6
4. Sharing the background knowledge of ALdia partners	10
4.1. Methodologies.....	10
4.2. Tools	14
5. Design meetings general overview	21
5.1. Italian Design Group – Key findings	21
5.2. Spanish Design Group – Key findings.....	23
5.3. Greek Design Group – Key findings	25
6. References.....	27

1. Introduction

1 This document has been developed within the framework of the **ALdia - Accessible Learning Design implementation and Accreditation** project. ALdia is a project co-funded by the European programme Key Action 3: Support for policy reform - Initiatives for policy innovation.

The main objective of the ALdia project is to reduce disparities in learning outcomes affecting learners from disadvantaged backgrounds and to mainstream the equal access principles and practices into all education sectors and levels in Europe and beyond. The ALdia project aims to establish new knowledge and explore the feasibility of a new accreditation that will prepare and deploy the HE and VET education professional workforce for equity, diversity and inclusion through the use of new and creative pedagogies and tools. ALdia activities are expected to support people with disabilities to obtain higher qualifications and facilitate their transition to the labour market. To this direction, ALdia will design and develop a MOOC (Massive Open Online collaborative Course) to prepare the education professionals for equity, diversity and inclusion in learning process and certify them with the qualifications of inclusive education.

The *ALdia training programme: Description of methodologies and tools* is a deliverable of WP3 “Development of the training, assessment and accreditation”, which is the central WP to the project implementation as it will deliver the major project results:

- Eight training modules,
- Eight self-assessment tests
- Thirty-two peer-assessment assignments
- One final exam

The training modules are based on the findings of the previous WP2 to develop innovative and flexible techniques that respond to specific education needs and promote inclusive learning and equality.

The programme will abide by the European Qualifications Framework for lifelong learning (EQF) and the European Credit System for Vocational Education and Training (ECVET) standards.

2

The main objective of this WP is firstly to define the ALdia training, assessment and accreditation framework, taking into consideration the outputs of the previous WP2 in order to turn the target groups' specific needs into specific learning outcomes; secondly to develop the training material, eight ALdia training modules to remove or reduce inadvertent barriers which prevent disabled students from successfully participating in courses and programmes of study; and finally, design the assessment and accreditation, in order to assess the competences acquired by the trainees.

To this purpose, the WP3 will deliver, apart from the training modules (R3.3) and the assessment exams (R3.4), different documents that are directly linked between them and with the next tasks:

- ALdia training programme: description of methodology and tools (R3.2),
- ALdia training programme – a guide (R3.5),
- ALdia programme-trainers' guide (R3.6),
- ALdia programme-trainee's guide (R3.7).

During this WP the focus groups in each country will be asked to meet again in order to give their opinions on the ALdia training methodology and tools. Their members will include experienced education and accreditation professionals, who can contribute to the definition of the most appropriate training and assessment pedagogical approaches.

2. Objectives of the ALdia training programme: description of methodologies and tools

3

The main goal of this document is to be a concrete and useful instrument providing a common background of methodology and tools to be adopted by partners in the design of the ALdia Training Programme for the effective training of the target groups.

The document is structured into two main sections:

- The first one aims at defining the ALdia learning approach and methodology within the ALdia Consortium.
- The second section consists in a common understanding of the meaning of methodology and a collection of practical examples of tools provided by partners as patrimony to be used among the entire Consortium.

The main beneficiaries within the ALdia project are both the High Education professionals and Vocational and Educational Training providers who are the target group of ALdia training programme. Nevertheless, this document could be used by all those involved in dealing with a methodological approach in the development of the training course.

The main challenge highlighted by this document is to find the appropriate methodology and tools that respond to the target group's specific needs in terms of skills to prepare the education professionals for equity, diversity and inclusion in learning process and certify them with the qualifications of inclusive education.

This report takes into account the previous ALdia reports¹ where we have defined the needs of student with disabilities from Greece, Spain and Italy in both higher education and VET sectors, and the technical and contextual requirements for the ALdia virtual e-learning platform (the general layout of the Platform, the Users and their involvement, Moodle's technical aspects regarding Accessibility Specifications and sets the learning design specifications).

¹ R2.2 Supporting students with disability in HE and VET: a needs analysis, developed by Four Elements, 2016.

R2.3 ALdia Training and Certification Strategy, developed by CESIE, 2016.

R2.4 Specifications of the ALdia Virtual Learning Environment, developed by UPRC, 2016.

4

Apart from that, this report takes under consideration the outcomes of the design meetings organized with experienced education and accreditation professionals in the three countries (R3.1: Design meetings on training pedagogy and tools).

Another challenge consists in giving the basis to create an overall homogeneity of contents despite the diversity among all the consortium partners. Therefore, diversity should be pointed out as a resource in favour of the homogeneity.

3. ALdia learning approach and methodology

3.1. ALdia learning approach

Based on this needs analysis, ALdia Massive Open Online collaborative Course (MOOC) will be designed and implemented for HE and VET education professionals from Spain, Greece and Italy to discuss and gain a deeper understanding of emerging trends in promoting equity and inclusion for disabled students, including methodology, best practices and practical, hands-on application of traditional and blended classroom techniques.

The ALdia MOOC will give education professionals in the three partner countries and beyond the opportunity to learn, practice, discuss and share how to design and implement accessible lectures and trainings. In this way, the ALdia project will promote the development of learning environments that foster inclusion and diversity.

Its successful completion can lead – for the learners that wish to do so- to an ALdia outcome-oriented certificate (based on the EQF/ECVET framework) that will be offered at a low cost. The ALdia certificate will give the opportunity to the trainees to become ALdia trainers.

The ALdia learning approach is based on innovative **constructivist** and **collaborative** principles.

- Constructivist learning environments are designed to facilitate a learner’s construction of new knowledge.
- Collaborative learning takes constructivism further by placing learners in the centre of the education process.

The development of collaborative teaching and learning pedagogies are used in two respects:

- a) the ALdia training methodology and practice will be using all the collaborative learning techniques available for virtual learning systems. More specifically, Discussions Forums, Chats, Wiki and Workshops will be available. Trainees will have access to a ‘practice area’ in the ALdia MOOC where they will be able to share their accessible learning designs. Assessment will be performed through weekly peer-assessment (among others).

- 6
- b) The accessible learning design that will be taught by the ALdia training will incorporate, where appropriate, collaborative teaching techniques. Collaborative learning can be particularly beneficial in a diversified teaching environment and can promote tolerance and combat discrimination. The aim of the ALdia training material, taught in eight modules is to remove or reduce inadvertent barriers, which prevent disabled students from successfully participating in courses and programmes of study.

3.2. ALdia Methodology

Learning thus becomes an active process, which can be furthered by the use of new technologies and the internet. Participants can attend the ALdia MOOC as they wish and they can create their own schedule according to their specific needs. The reason to use this approach answers to many reasons:

- there is a significant amount of content to be delivered to a large number of learners;
- learners come from geographically dispersed locations;
- learners have limited mobility;
- learners have limited daily time to devote to learning;
- learners do not have effective listening and reading skills;
- learners have at least basic computer and Internet skills;
- learners are required to develop homogeneous background knowledge on the topic;
- learners are highly motivated to learn and appreciate proceeding at their own pace;
- content must be reused for different learners' groups in the future;
- training aims to build cognitive skills rather than psychomotor skills;
- the course addresses long-term rather than short-term training needs;
- there is a need to collect and track data.

The ALdia MOOC will be a virtual learning environment applying an assortment of tools that can be used for constructivist and collaborative learning, including discussion forums, wiki

and workshops. ALdia training material will use unconventional learning resources (games, videos, software, etc.), although specific care will be given for them being accessible. It will also allow for the flexible access and use of information and resources at a time, place and pace that is suitable and convenient to individual learners.

The course will be offered through the ALdia Virtual Learning Platform (VLP). The platform will be built on the latest version of the popular Learning Management System Moodle2. (See report R2.4 “Specifications of the ALdia Virtual Learning Environment” for further specifications).

Moodle is a free open source software used for e-learning projects and distant education with the specificity to create on line courses to achieve specific learning objectives. It allows a virtual learning environment encouraging the learners to contribute to the educational experience and being active part of a learning virtual community. It allows to organise the learning program into sections and modules guaranteeing a sequentiality of activities. The e-learning through the Moodle Platform can be integrated with many useful online tools, find a list of these tools below:

- BSCW (<https://public.bscw.de/pub>) is a collaborative platform in which you can store, share and manage files (documents, pictures etc.). You will be able to grant password-protected access to friends and colleagues; create arbitrary numbers of teams; invite new members simply by email; manage appointments, contacts, tasks and notes; use versioning and change reports to monitor distributed processes; stay aware of your teammates' activities; create and publish blogs; use polls to sample your teammates' opinions; send automatic reminders of events to remember and things to do.
- TWIDDLA (<http://www.twiddla.com>) is a free, web-based meeting playground
- Padlet (<http://padlet.com>) tool for a virtual collaboration wall
- Google groups (<https://groups.google.com/forum/#!overview>)

2 Acronym for Modular object-oriented dynamic learning environment (source: the free encyclopedia Wikipedia)

Collaborative creation of documents:

- Google Drive is a file storage and synchronization service provided by Google consisting of collaborative text-editing, spreadsheet and presentation tools. (<http://www.google.com/intl/es/drive/about.html>)
- Wikis are collaborative websites which allow users to add, modify or delete the content via a web browser. The most common example of a wiki is Wikipedia, also an unmatched example of collaboration. Some examples of wiki tools are:
 - Pbworks (<http://pbworks.com>)
 - Mediawiki (<http://www.mediawiki.org/wiki/MediaWiki>)

Collaborative mind maps are also a good way to share ideas, brainstorm or develop an idea collaboratively. Some examples of collaborative mind mapping tools are:

- Mind42: Collaborative web-based tool, with unlimited simultaneous users, to create mind maps. (<http://mind42.com>)
- Mindmeister (<http://www.mindmeister.com>)
- Cmaptools (<http://ftp.ihmc.us>)
- Bubbl.us (www.bubbl.us)
- Videconferences can be used for online meetings at a distance at a certain time for a selected group of people. Some of the videoconferencing tools you may find useful in your classroom are:
 - Flashmeeting (<http://fm.ea-tel.eu/fm>)
 - OpenMeetings (<http://code.google.com/p/openmeetings>)
 - BigBlueButton (<http://bigbluebutton.org>)
 - Skype (<http://www.skype.com/intl/pl/home>)
 - WiZiQ (<http://www.wiziq.com>)
 - Google Hangouts (<http://www.google.com/+/learnmore/hangouts>)
 - AdobeConnect (<http://www.adobe.com/products/adobeconnect.html>)

Blogs are often sites for individual online publishing, but they have potential for collaboration and group work thanks to the possibility to have more than one author and to comment on what was published. Popular blogging tools you may consider using with your students are:

- Blogger (www.blogger.com)

- Wordpress (<http://wordpress.com>)

Social networking sites: Nowadays social networks are one of the most used online tools in everyday life as well as work. They allow users to stay in touch with the others, share information easily and make contacts with people - these characteristics can be used for online collaboration of a group of classmates on a task, sharing of the results of their practical work with the community asking for feedback or ideas for solutions, as well as contacting remote students and teachers studying the same vocational subject, with a different perspective and from a different context. All this provides opportunity for collaborative learning and group work and can enrich the learning process. It is possible to join a social network that already exists (e.g. Facebook, in which you can create your work group) or create your own network (with Social go, Elgg etc.).

- Facebook (www.facebook.com)
- Social GO (<http://www.socialgo.com>)
- Elgg (<http://elgg.org>)

Other tools, such as **virtual desks** (e.g. www.dropbox.com) or social media sites, are designed for resource sharing, which can be very useful when working on a learning activity in a group. Social media sites are used to share media objects (video, images, audio, slides etc.), but as the name implies, they include intensive social interaction between the users. Once a resource is published online it can be collaboratively analyzed, commented on and ideas further developed. Examples of tools belonging to that group and bearing potential for classroom use are:

- Video: YouTube (www.youtube.com)
- Slides: Slideshare (www.slideshare.com)
- Pictures: Flickr (<http://www.flickr.com>)
- Webpages: Diigo (<https://www.diigo.com>)

4. Sharing the background knowledge of ALdia partners

4.1. Methodologies

After an investigation among all partners, Fondo Formacion Euskadi extrapolated the main idea related to methodologies (in the ALdia virtual learning environment context) that wants to be addressed within the ALdia project. The methodologies here shown aims at being a system of principles, a structured approach for a learning objective that consists in preparing the education professionals for equity, diversity and inclusion in learning process and certify them with the qualifications of inclusive education.

Taking into account the different definitions of methodologies provided by the partners, we adopt the following definition of **methodology**, within the ALdia project framework:

The theoretical analysis of the methods that will be used, in order to describe the specific procedures or techniques, applied to the field of the study. It also includes the principles that will work as a basement for the study. Therefore, it responses to how to teach.

Here are shown the **Methodologies** that partners believe could be part of the pedagogical background of the ALdia Training Course:

Methodology's name	e-learning
Background	Important authorss: Toni Bates y Albert Sangrà, Julio Cabero
Description	on line learning
Fields of implementation	Training in general
Links to ALdia project	It is scheduled a MOOC in the project and this concept is understood as a type of e-learning
References	http://www.uoc.edu/portal/es/elearncenter/ http://www.uoc.edu/rusc/3/1/dt/esp/cabero.pdf

Methodology's name	Learning Objects
Background	Wiley
Description	Reusable online content as a basis for teaching
Fields of implementation	Training in general
Links to ALdia project	The contents of the ALdia MOOC could be learning objects
References	http://www.reusability.org/read/

Methodology's name	Significant learning
Background	Constructionism Coll and Zabalza
Description	The MOOC learning must be interesting for users, by providing some quality to their training.
Fields of implementation	Training in general
Links to ALdia project	The theoretical basis of the training in the MOOC could be the AS.
References	http://www.saladeprofes.cl/se-dice/831-constructivismo-y-el-aprendizaje-significativo.html

Methodology's name	Cognitively Guided Instruction (CGI)
Background	Constructivism, Piaget, Vygotsky
Description	A learning approach in which the educator uses strategically placed prompts, cues, questions, direct explanations, and modeling to guide student thinking and facilitate an increased responsibility for the completion of a task
Fields of implementation	In adult learning
Links to ALdia project	In adult learning, this methodology activates the mechanism for cooperative learning climate, sequential activities for achieving the objectives, formulation of learning objectives based on the diagnosed needs and interests.
References	http://www.sciencedirect.com/science/article/pii/S0883035505800059 http://www.ascd.org/publications/books/111017/chapters/Scaffolds-for-Learning@-The-Key-to-Guided-Instruction.aspx

Methodology's name	Case-based learning
Background	Pioneered in the medical school program at McMaster University in Hamilton, Ontario, Canada in the late 1960s by Howard Barrows. It can be considered as a constructivist approach to instruction.
Description	With case-based teaching, students develop skills in analytical thinking and reflective judgment by reading and discussing complex, real-life scenarios.
Links to ALdia project	The method addresses the needs of both the teachers and the administratives, because they will be critically engaged with specific circumstances of accessibility. The study of cases will help them to identify problems as they perceive them and thus formulate strategies and generate possible solutions for authentic scenarios.
References	http://edutechwiki.unige.ch/en/Case-based_learning http://www.gla.ac.uk/schools/medicine/mus/coursecontributingopportunities/casebasedlearning/ http://www.nea.org/assets/img/PubThoughtAndAction/TAA_01Sum_05.pdf

Methodology's name	Self-assessment
Background	Social Learning Theory – Bandura, 1978 Schunk & Zimmerman, 1994 – Self-regulated learning
Description	Student self-assessment involves students in evaluating their own work and learning progress.
Links to ALdia project	Through self-assessment, the participants in the ALdia training will be able to: <ul style="list-style-type: none"> • identify their own skill gaps, • see where to focus their attention in learning, • set realistic goals,

	<ul style="list-style-type: none"> • revise their work, (lectures / administrative services) • track their own progress • decide when to move to the next level of the course. <p>Due to its great impact on student performance—in both classroom assessments and large-scale accountability assessments—the method will empower students to guide their own learning and internalize the criteria for judging success.</p>
References	<p>http://www.edutopia.org/blog/self-assessment-inspires-learning-lori-desautels</p> <p>http://www.assessmentforlearning.edu.au/professional_learning/student_self-assessment/student_strategies_enhance.html</p> <p>http://files.eric.ed.gov/fulltext/EJ815370.pdf</p> <p>https://www.reading.ac.uk/engageinassessment/peer-and-self-assessment/self-assessment/eia-self-assessment.aspx</p> <p>http://www.itari.in/categories/ability_to_learn/self_efficacy_an_essential_motive_to_learn.pdf</p>

Methodology's name	Open discussion
Description	Quality discussion involves purposeful questions prepared in advance, assessment, and starting points for further conversations within the trainees and opportunities for reflection. After lecture this is the most frequently used teaching strategy with many benefits, because it helps the students to understand, reflect on and apply what they have learnt.
Links to ALdia project	Trainees will share their experience and reflect on many accessibility issues. Online discussion is a less threatening environment for trainees to participate.
References	<p>https://www.brown.edu/about/administration/sheridan-center/teaching-learning/effective-classroom-practices/discussions-seminars/facilitating</p> <p>http://www.cmu.edu/teaching/designteach/teach/instructionalstrategies/discussions.html</p> <p>http://www.edutopia.org/blog/rethinking-whole-class-discussion-todd-finley</p> <p>http://www.cdtl.nus.edu.sg/brief/v7n2/sec3.htm</p>

Methodology's name	Action learning
Background	The roots of action learning can be traced to action research, a concept and term originated by Kurt Lewin in the 1940s (Weisbord, 1987). Reginald W. Revans pioneered the concepts of action learning more than 50 years ago through the use of in-depth research and work in coal mines, hospitals, and other industries. He was invited to try out his theories in Belgium that led to an upturn in the Belgian economy.
Description	Action learning is continuous process of learning and reflection with the intention of getting something done. It does not use project work, job rotation, or any form of a simulation such as case studies or business games. Learning is centered around the need to find a solution to a real problem. Most action learning processes take from four to nine months to complete.
Fields of implementation	All
Links to ALdia project	Teams of learners with diverse backgrounds conduct field projects on problems requiring use of skills learned in formal training sessions (what they have learnt in the elearning learning previously)
References	http://www.nwlink.com/~donclark/hrd/media/action_learning.html

Methodology's name	Self-Directed Learning
Background	the notion of SDL advocated here reflects Malcolm Knowles definition of SDL: <i>"In its broadest meaning, 'self-directed learning' describes a process by which individuals take the initiative, with or without the assistance of others, in diagnosing their learning needs, formulating learning goals, identify human and material resources for learning, choosing and implement appropriate learning strategies, and evaluating learning outcomes."</i> (Knowles, 1975, p. 18)
Description	Of primary concern in this definition of SDL is the fact the learner takes 1) the initiative to pursue a learning experience, and 2) the responsibility for completing their learning. Once the initiative is taken, the learner assumes complete responsibility and accountability for defining the learning experience and following it through to its conclusion. This does not preclude input from others, but the final decision is the learner's. Self-direction does not mean the learner learns alone or in isolation.
Fields of implementation	All
Links to ALdia project	In terms of e-learning, the fact that learners can determine which modules or scenarios to review is also frequently touted as self-directed learning. The fact that the learner has a choice and makes a decision to select this or that module depending on her/his interests.
References	http://www.selfdirectedlearning.org/what-is-self-directed-learning

Methodology's name	Reciprocal Maieutic Approach (RMA)
Background	The RMA is a popular dialectic methodology of research and self-analysis developed by Danilo Dolci from the concept of Socrates' maieutic. It derives from the ancient greek "μαιευτικός" that literally stands for the midwife art: each educational act is like giving birth to all the inside potentials of the individual who wants to learn.
Description	RMA is a process of collective exploration of possible problem solution and alternative paths that departs from the experience and the intuition of individuals. This approach promotes a sense of responsibility in the communities and individuals and can be defined as a "collective exploration process that considers individuals' experience and intuition as a reference point". Danilo Dolci's RMA, as a result, is based on the sharing process of answering, exploring and creating. As the name itself recalls, the RMA is a "reciprocal" process between at least two people and it normally develops within a group, with a person who starts asking some questions and other people who search for the answers together and make other close examinations. In an intense dialogue that stands for a new way of education based on increasing individuals' and group's creativity, the maieutical process concentrates on the capacity of people potential to discover their vital interests and freely express their own reflections based both on their experiences and their personal discovers and on the choral verification of the proposals.
Fields of implementation	One of the main advantages of RMA is the ability to apply it in different areas, just because it is a methodology that serves mainly to bring the student's knowledge to light using the dialogue as a dialectical tool. There are no limits to the application of this method and the Danilo Dolci

	philosophy, clarify that people's knowledge can arise from experience and its sharing, and then requires mainly reciprocity in communication.
Links to ALdia project	The central aim of the ALdia project is to mainstream the equal access principles and practices into all education sectors and levels. In this sense the RMA is addressable with the project because it allows the trainer to establish a closer relation with learners activating important competences and values as: learning to understand, group processes, respect for the other, learn to be active and involved in society, develop more self-esteem and awareness to be creative. The use of this approach provides a deep sharing between the people involved, and this achievement is only possible if permit an equal access to all kind of learners.
References	Manual in English, RECIPROCAL MAIEUTIC APPROACH In adult education, Edited by Amico Dolci and Fausto Amico. http://cesie.org/media/EDDILI_manual_EN.pdf

4.2. Tools

This section is dedicated to present practical examples of specific tools matching with the main principles and aspects of the ALdia methodology listed above: *supporting a step by step learning process* and *promoting a participatory approach*. All examples were provided by partners according each one's experience and they can be addressed to the main objective of ALdia training programme. Therefore, it is very important to remind that they will have to be adopted according the each specific training context, considering aspects such as the cultural peculiarities of each country where the training takes place, the personalities of the trainer and the group of trainees.

Here is described the different **definitions of tools** provided by the partners:

TOOL DEFINITIONS
A tool is a resource that helps to implement a methodology. In a broad sense and in the field of the integration the ICT in the classroom, a tool may refer to both the software and the hardware.
Tool must be used to refer to something unitary and specific, such as a named test, or a device to do research with.
An educational tool is a program used to carry out a specific activity in an effective way. These tools supplement the learning materials, promoting creativity, collaboration and problem solving.
A Tool is a system by which it is possible to achieve specific project objectives or facilitate the implementation of some activities. These tools can be specifically designed tools or regular productivity tools that can be adopted for project management work. The exact definition of a pedagogical tool varies by age and education level, but virtually anything can be a

15

pedagogical tool in the right circumstances. It is normal for the amount of training required to use different tools to vary, but no limits exist on what might be a pedagogical tool; it is up to the educator or student to make connections between the tool and concepts or facts to be learned. For instance Capacity building is one of CESIE's milestones as it works as a tool for the development of knowledge, skills and capabilities of individuals and organisations through training, acquisition of new resources, strategies, conceptual frameworks and organisational attitudes. Also Critical thinking is a system that entails many kinds of pedagogical tools, including developing well-reasoned, persuasive arguments and examining concepts or situations from multiple perspectives, including different cultural perspectives. The definition of a tool involves a careful evaluation of the target group, and for this you can choose practical or theoretical elements in case you need a more direct or more structured approach. Technology has played a major role in this advancement and the use of some instruments such as online platforms can facilitate the meeting and sharing of useful elements to all users and increase the chances of reaching the prefixed targets. As mentioned before, the RMA is a "reciprocal" process between at least two people and it normally develops within a group, with a person who starts asking some questions and other people try to find the answers together and make other close examinations. The maieutic workshop needs everybody to question and uncover themselves in front of the others, and with the others to start a common research path of analysis, testing and creative co-education. For this type of activity, the main tools are dictated by the arrangement of the classroom by the time everyone has to use to express their thoughts and mediation provided by the facilitator. A major concern with pedagogical tools is that not all individuals have access to the same items. This usually is due to economic restrictions. For this reason in the same way pedagogical tools vary by subject, they also vary by educational level.

The following tables contain the information about the tools/methods suggested by the ALdia partners, which could be used during the development and the implementation of the ALdia training programme. The tools proposed by partners can be used across the different modules:

SIMULATION EXERCISES AND ROLE GAMES
VIRTUAL CLASSROOMS
WEBCASTING CREATION TOOLS
SLIDESHARE TOOLS
SHARE FILES TOOLS
QUIZ
E-BOOK CREATION TOOLS
GLOSSARY
ONLINE QUIZZES
INTERACTIVE ACTIVITIES
FEEDBACK QUESTIONNAIRES (TO BE EMBEDDED ON MOODLE)
COLLABORATIVE TOOLS (WIKIS)
COMMUNITY FEATURES (DISCUSSION FORUMS)
TUTORIALS

Each table shows main information such as:

- The name of the tool
- A brief description
- Number of people, materials and time needed
- Links to ALdia project
- Websites of reference and the provider partners to search for more detailed information

Tool's name	SIMULATION EXERCISES AND ROLE GAMES
Description	Simulation exercises and role-play games help you accurately assess how individuals perform in the areas central to everyday business life. These exercises simulate work-related tasks in a business environment, enabling you to assess a participant's competencies in a realistic setting but through a safe environment where failure is just a matter of learning and there's space for it and for feedback and improvement.
Number of people involved	Depending on the activity and aims of the learning process, but it can involve few or a lot of people.
Materials needed	Computer Paper, pens and background music.
Time needed	Flexible, Depending on the exercise
References	https://en.wikipedia.org/wiki/Training_simulation http://www.dol.gov/odep/documents/TeachingSoftSkills.pdf https://www.coe.int/t/dg4/youth/Source/Resources/Publications/2009Manual_for_facilitators_en.pdf

Tool's name	VIRTUAL CLASSROOMS
Description	Applications or software that allow to collaboration in a virtual classroom. These provide users a variety of different tools including audio, whiteboard, chat and screen sharing. The most popular applications include Adobe Connect (www.adobe.com/products/adobeconnect.html), ClickMeeting (www.clickmeeting.com) and Spreed (www.spreed.com). Google Hangouts, part of the Google+ social networking service provides a space for live online meetings between trainers and learners. Interaction and annotation tools allow trainers to share whiteboards, presentations, documents and multimedia files and to communicate in both oral and written media.
Number of people involved	All students
Materials needed	Computer and software A virtual classroom mimics a traditional instructor-led classroom by integrating different types of synchronous tools, such as whiteboard, chat, audio conference or application sharing.
Time needed	Flexible
Links to ALdia projects	Highly interactive Allow to practice high cognitive performance level (apply, analyse)
References	http://www.adam-europe.eu/prj/7398/prd/3/2/Collaborative%20Blended%20Learning%20Methodology%20ver.%201.pdf

Tool's name	WEBCASTING CREATION TOOLS
Description	These are tools used to achieve a media presentation distributed over the Internet using streaming media technology to distribute a single content source to many simultaneous listeners/viewers. A webcast may either be distributed live or on demand. It offers data streams of text-based messages, voice and video chat to be shared simultaneously, across geographically dispersed locations. Applications for web conferencing include meetings, training events, lectures, or presentations from a web-connected computer to other web-connected computers.
Number of people involved	Unlimited
Materials needed	Fast network connection and a camera
Links to ALdia project	All the trainees participating in the ALdia training, will be engaged with the use of live video. They will be reached at the same time and conduct online seminar / communication.
References	https://www.allbusiness.com/basic-tools-for-live-webcasting-14910319-1.html

Tool's name	SLIDESHARE TOOLS
Description	Hosting services that allows users to upload files (PowerPoint, PDF, Keynote, or OpenDocument presentations), privately or in public. The service allows you to upload PowerPoint and PDF slide decks and then converts them to a player that can be tagged and made public.
Number of people involved	Unlimited
Materials needed	Network connection
Links to ALdia project	Trainees will have the opportunities to comment and share the uploaded content.

Tool's name	SHARE FILES TOOLS
Description	Cloud-based tools, with many including storage facilities to track all transfers. These tools also save you from the setup, cost and maintenance of running your own home server (VPN), and make it easy to upload files to share with friends or colleagues, access remotely (on any device), or store for later.
Number of people involved	Unlimited
Materials needed	Network connection
Links to ALdia project	Having all files stored online makes it easy to store, organize, and share them, so you can work on documents with teammates, share reports with business partners, or connect with customers. The files are always up to date, so everyone has access to the latest version. These tools will enhance collaboration between the trainees and it will keep the participants up to date.
References	https://products.office.com/en/business/office-365-file-sharing-online-collaboration-tools http://mashable.com/2014/03/06/file-sharing-tools/#b1Cr3.XHEkqQ

Tool's name	QUIZ
Description	It is an engaging, easy and fun way to provide assessment. It can take several forms, such as text questions, multiple choice questions, image questions, multiple correct answers, etc.
Number of people involved	Unlimited
Links to ALdia project	Trainees can maintain self-assessment and come back to improve their scores.
References	https://www.quiz-maker.com/ http://www.educatorstechnology.com/2014/02/10-useful-web-tools-for-creating-online.html

Tool's name	E-BOOK CREATION TOOLS
Description	Online books, presenting content in a more interactive way.
Number of people involved	Unlimited
Links to ALdia project	Trainees are expected to become more engaged.
References	http://rockthedeathline.com/blog/content-marketing/tips-for-creating-an-ebook-in-microsoft-word/ http://www.thebookdesigner.com/2015/06/five-free-tech-tools-for-ebook-authors/

Tool's name	GLOSSARY
Description	A brief dictionary for a specific subject. Traditionally, a glossary appears at the end of a book and includes terms within that book that are either newly introduced, uncommon, or specialized.
Number of people involved	Unlimited
Links to ALdia project	Creation of accessibility glossary.
References	https://en.wikipedia.org/wiki/Glossary http://ieeexplore.ieee.org/document/4629722/?arnumber=4629722

Tool's name	ONLINE QUIZ
Description	Within the online platform the use of Quiz will consist in the presentation of some questionnaires in order to collect information about the needs and the perception of the participants.
Number of people involved	Depends on the number of trainers
Materials needed	Questionnaires
Time needed	20 minutes
Links to ALdia project	The use of practical Tools is more advisable concerning the necessity to implement the activities and share it with all the partners involved. Pedagogical focus is on bridging the gap between historical state of an activity and the developmental stage of a person with respect to that activity, in particular there should be realisation that the development of content alone does not lead to more effective learning, and that there is a need to structure and foster learning environments to enable communities to develop.
References	G. Conole, M.Dyke, M.Oliver, J.Seale; "Mapping pedagogy and tools for effective learning design"; Research and Graduate School of Education, Highfield Campus, University of Southampton, Southampton SO17 1BJ, UK http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.178.8474&rep=rep1&type=pdf

Tool's name	INTERACTIVE ACTIVITIES
Description	These activities can include a wide range of tools provided for within the Moodle system, such as crosswords, submission of essays, open-question questionnaires, true or false questionnaires etc.)
Number of people involved	Unlimited
Links to ALdia project	These activities help involve the learners through their practical engagement in active tasks while helping the course provider to measure learners' achievements.
References	

Tool's name	FEEDBACK QUESTIONNAIRES
Description	Questionnaires asking for users' feedback. This kind of questionnaires represent evaluation tools which can be used to identify the strengths and weaknesses of the course and to improve it in version 2.
Number of people involved	Unlimited
Links to ALdia project	These activities help involve the learners through their practical engagement in active tasks while helping the course provider to measure learners' achievements.
References	

Tool's name	COLLABORATIVE TOOLS (WIKIS)
Description	Wikis are a very important feature in MOOCs. They are collaborative documents allowing learners to edit the same document, adding/deleting parts of it.
Number of people involved	
Links to ALdia project	These activities help involve the learners through their practical engagement in active tasks.

References	https://docs.moodle.org/24/en/Wiki_module
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Tool's name	COMMUNITY FEATURES (DISCUSSION FORUMS)
Description	Community is a critical feature in MOOCs, as it allows the learners to jointly discuss of problems related to the learning paths and to find solutions in a collaborative way. These features can include forums, blogs, chats etc.
Number of people involved	
Links to ALdia project	These activities help involve the learners through their practical engagement in active tasks.
References	

Tool's name	TUTORIALS
Description	Adding video-tutorials is a nice way to explain what a course is about in an attractive way. It is very simple to create nice tutorials using free tools such as PowToon.
Number of people involved	
Links to ALdia project	These activities help involve the learners through their practical engagement in active tasks.
References	

5. Design meetings general overview

Three design meetings were held in all consortium countries: Spain, Italy and Greece. The number of participants varies between 8 and 9 and the profile of the attendants are composed of persons designated by the partners and carefully selected. This variety allows to have represented our target group and so, to gather the opinions from the different perspectives:

- Disabled Students
- VET / HE professionals working with disabled students
- Civil society organisations working with disabled students

The meetings had an approximate run time from 75 to 90 minutes and were coordinated by one or more facilitators who were responsible for conducting the dialogue among the participants through various project related questions.

The findings of these meetings are presented below and their conclusions will be used for the ALdia training programme and training modules.

5.1. Italian Design Group – Key findings

To define a **training methodology** focused on facilitating the access to learning paths by disabled students, is needed:

- Theoretical knowledge: in terms of knowledge about disability and in how to structure an intervention tailored to the needs that arise.
- Knowledge of the tools that can guarantee equal access to all categories of students.
- Fundamental personal attitudes are needed: empathy and patience.
- To be focused on the need of the students and to propose clear patterns of learning processes, thus defining the objectives to be achieved.
- To take into account the work that will be implemented by the training provider staff (tutors, teachers, etc.) with the families of the disabled person. The interventions should also consider the needs of the families, trying to find adequate solutions for all the actors involved.

To choose the right **pedagogical tools** focused on facilitating the access to learning paths by disabled students is important to take into account the following:

- It is good to use different tools, it is up to the educator or student to make connections between the tool and concepts or facts to be learned.
- The definition of a tool involves a careful evaluation of the target group.
- Online platforms (and in general structured IT for disabled people) and the practical use of assistive technologies can facilitate the meeting and sharing of useful elements to all users and increase the chances of reaching the prefixed targets. Attention!! We should not overdo in using IT tools because they can also have a negative effect on social relations.

Role playing is identified as a **good practice of training methodology** from the disabled students' point of view, encouraging group dynamics which can be very useful to achieve effective results in terms of training. The HE /VET professionals consider that sport is another methodology that allows people with special needs to have equal access to the education system and can enhance their skills, social and communicating abilities, as well as improve their overall health and well-being. Also mentoring, a tutor who accompanies the student for the entire academic period, is considered a good practice.

Some **challenges** are mentioned by disabled students in order to develop a training programme for HE and VET professionals in special needs education based on the ECVET principles, which is:

- To match student interests with the needs of families and the university staff. The role of the tutor as a mediator is fundamental.
- The lack of genuineness and participants' resistance to leave their "role" and to expose themselves in front of other people.

The bureaucratic system within training providers was also recognised as challenging, according to the HE/VET professionals' perception.

5.2. Spanish Design Group – Key findings

Regarding the **training methodology** disabled students do not want the contents and assessments to be simplified but adapted, so that they can reach them like other peers. From HE/VET professionals' perception:

- Institutional plans that specify strategies and methodologies to design concrete actions for accessibility are needed.
- The training should be associated with an awareness raising plan and an education in values, since attitudes, voluntarism, etc. influence in the accessibility.
- The methodology introduced by the Education Law- LOGSE (General Organic Law of the Education System of 1990) based on meaningful learning, analysis of previous ideas, continuous assessment and learning to learn, is still evaluated positively.

Some **pedagogical tools** are proposed by disabled students:

- Text adapted for communication alternative systems: Braille or others.
- Modulated Frequency for the teacher and student with hearing impairment.
- Design of adapted and flexible activities.
- Accessible Webs.
- Preferred spaces in the classrooms and more accessible classrooms.
- Time flexibility for accomplishment and delivery of tasks and works.
- Non-significant curricular adaptations in terms of methodology and evaluation tools.

On other hand, the HE/VET professionals propose the following to facilitate the access to learning paths by disabled students:

- ICT as a working tool and access to communication.
- Mentoring protocols and methodological actions.
- Continuous Training.
- Expert support and advice on the subject.
- More time devoted to these students.
- Reduction of teacher-student ratio (smaller groups).

The following **barriers** or needs are highlighted:

- Lessons and materials are not accessible.
- Teachers need more time, desire, attitude, etc.
- Teaching staff training.
- Participation of the disabled students in the training process.
- Carried out cooperative learning.
- Clarify: accessibility is not to simplify the curriculum; accessibility is to adapt it.

There are aspects or **challenges** to keep in mind when designing a training proposal:

- Inclusion of ICT.
- Education in values.
- Cooperative work.
- Peer tutoring.
- Shared leadership.
- Collaboration among teachers.
- Greater involvement of students in the accessibility.
- Aspects of the so-called universal design.
- Include the voice of those involved: the students.

The students consider that a **training programme** for HE and VET professionals in special needs education based on the **ECVET principles** should contain necessary:

- Description of the educational needs of the different disabilities.
- Analysis of communication systems and didactic and technological resources to use in different disabilities.
- Approaches and type of evaluation adapted to the educational needs of the different disabilities.

The HE and VET professionals propose the following:

- Knowledge and analysis of the educational needs of the different disabilities.
- Knowledge and implementation of the communication systems and didactic and technological resources that are required in the different disabilities.
- Knowledge and application of evaluation criteria and instruments adapted to different disabilities.

5.3. Greek Design Group – Key findings

In Greece, apart from the design meeting, were carried out 2 separate interviews with experts (Mrs. Maria Emmanouil, member of Accessibility Unit for Students with Disabilities, National and Kapodistrian University of Athens, and the Professor Polatoglou, from Aristotelion University of Thessaloniki) due to they couldn't attend the meeting.

From the disabled students' point of view, the **training methodology** should be personalized and customized on the specific characteristics and needs of each disability. Also the **pedagogical tools** should be suitably designed.

The HE/VET professionals think that it will be very helpful to consider the following elements when develop a **training programme** for HE and VET professionals in special needs education:

- the case based experiences,
- live speeches of students with disabilities,
- videos made by students with disabilities, which explain their needs,
- experiential seminars,
- group forum

Methodologically speaking, in face-to-face lessons, professors and trainers should make the lesson more interactive and adopt techniques of learning activation in order to transform the lesson into more participatory for all students, including those with disability.

They propose the following **tools** in order to promote accessibility in the various types of disability:

- BSCW,
- TWIDDLE,
- Padlet,
- Google group,
- Skype,
- WiZiQ

- Wordpress,
- Elgg

HE and VET professionals consider that the educational material / content don't need great changes; it could remain the same, but adjusting it to the several types of disability, in order to become accessible for students with disabilities. The interactive educational material would address the needs of students with disabilities, as long as, it is designed according the UDL model to facilitate accessibility.

Regarding **challenges**, the disabled students declare that there are many different disabilities that have different and varied needs. Therefore a training programme for HE and VET professionals in special needs education, should cover holistically all these different categories and bridge any gaps in the meaning of accessible education. In the same sense, HE and VET professionals think they should receive a training that will range in various forms of disability, covering all the different disciplines and having practical application. They bet for a training pedagogy based on case based learning with live speeches and videos from students with disabilities. Participants could develop analytic, collaborative, and communication skills and they will see theory in practice.

The group identifies some **good practices** in University and VET center and considers that more good practices of special education from all universities and VET centers should be collected, in order to encourage cooperation between them and exchange the expertise, meanwhile the students with disability are supported in order to respond better in their academic responsibilities. Also the development of volunteerism among peers and students, should be encouraged from the HE and VET professors to facilitate accessibility to the students with disabilities.

6. References

Bibliography

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- R2.1 Design meetings on training pedagogy and tools, developed by CESIE, Four Elements, UPRC and UA, 2016.