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Quality in WHAAM

Contents

| Quality in WHAAM | 1 |
|---|----|
| The Mission of the WHAAM Project | 4 |
| The core concepts of the WHAAM project | 5 |
| WHAAM Approach to Quality: | 5 |
| Vision of Quality: | 5 |
| Approach to Quality Management: | 6 |
| Quality Monitoring: | 6 |
| The Quality Committee in the WHAAM Project: | 6 |
| Co-ordination: | 6 |
| Functions: | 6 |
| Relationship between the Quality Committee with the other Committees: | 7 |
| Organization of the Quality Committee: | 7 |
| Quality Enablers: | 8 |
| Leadership & Management: | 8 |
| The quality criteria for Committees: | 8 |
| Meetings: | 8 |
| Reports: | 8 |
| Partners: | 9 |
| Workpackage coordination: | 10 |
| Partner's responsibilities: | 10 |
| Resources: | 11 |





| Context Driven Framework (CDFw) | 11 |
|---------------------------------------|----|
| The Partnership Virtual Environment | 11 |
| Partner Meetings | 11 |
| Dissemination resources | 11 |
| Processes: | 11 |
| Work Packages structure: | 11 |
| Deliverables: | 12 |
| The role of work package coordinator: | 13 |
| Deliverables Sub-Processes: | 17 |
| Virtual Partnership Environment | 17 |
| Objectives: | 17 |
| Responsibilities | 17 |
| Target users/audience: | 18 |
| Processes: | 18 |
| Measures: | 18 |
| Dependencies: | 18 |
| Risk Assessment: | 18 |
| CDFw: Context Driven Framework | 18 |
| Objectives: | 18 |
| Responsibilities: | 19 |
| Target users/audiences: | 19 |
| Processes: | 19 |
| Measures: | 19 |
| Dependencies: | 19 |
| Risk Assessment: | 20 |
| Quality Analysis: | 20 |
| WHAAM Application | 20 |
| Objectives: | 20 |
| Responsibilities: | 20 |
| Target users/audience: | 20 |
| Sub-processes: | 20 |
| Measures | 21 |





| Dependencies | |
|--|----|
| Risk Assessment: | 22 |
| Quality Analysis: | 22 |
| Parents and Teachers Training Courses: | 22 |
| Objectives: | 22 |
| Responsibilities: | 22 |
| Target users/audience: | 22 |
| Sub-processes: | 22 |
| Measures: | 22 |
| Dependencies: | 22 |
| Risk Assessment: | 22 |
| Quality Analysis: | 23 |
| e-Learning module: | 23 |
| Objectives | |
| Responsibilities: | 23 |
| Target users/audience: | 23 |
| Sub-processes: | |
| Measures | 22 |
| Dependencies | 22 |
| Risk Assessment: | 22 |
| Quality Analysis: | 24 |
| Project Reports: | 24 |
| Objectives: | 24 |
| Responsibilities: | 22 |
| Target users/audience: | 24 |
| Sub-processes: | |
| Measures | 21 |
| Dependencies | 21 |
| Risk Assessment: | 25 |
| Quality Analysis: | 25 |
| The Quality Report: | 25 |





The Mission of the WHAAM Project

WHAAM: stands for "Web Health Application for Adhd Monitoring."

The key concepts in WHAAM are:

- ADHD & COGNITIVE-BEHAVIOURAL (CB) MONITORING;
- INFORMATION COMMUNICATION TECHNOLOGIES (ICTs) & HEALTH;
- LIFELONG LEARNING (LLL) FOR PARENTS, TEACHERS, AND CAREGIVERS.

The WHAAM project investigates how ICTs may affect the diffusion of an intervention models at school and in family based on a cognitive-behavior approach to the ADHD disease.

The main motivation behind this project is the impact of behavioral disorders on the LLL process for pupils and young adults.

The project is designed to set out specific actions aimed at improving teacher and parent skills in the observation of ADHD subjects (aged 7-18), and to design a multifunctional tool to recognize trigger events and/or the consequences that are reinforcing and maintaining the undesirable behaviors, thanks to the application of specific cognitive-behavioral strategies. The aim of this project is to help all involved persons to tackle efficiently some relevant problems such as scholastic achievement and social inclusion of ADHD subjects.

The mission of the WHAAM project is the improvement of the collaboration between school and family, teachers and parents, on the specific topic of the ADHD disease. Moreover, the aim of the project is the promotion of a stronger awareness about the relevance to set up a skilled social network around ADHD pupils and the diffusion of the evidence-based cognitive-behavioral monitoring procedure, as an efficient way to gather data and to organize effective and shared interventions.





Another relevant issue of the project is the construction of a common framework able to involve both educational research centers and public and private agencies for increasing the awareness of these agencies regarding the possible impact of the technology in the future of ADHD monitoring.

The core concepts of the WHAAM project

There are three core concepts in WHAAM project: ADHD & CB monitoring; ICTs & health; LLL for parents, teachers, and caregivers. In particular

- The application of the CB monitoring to ADHD is the principal approach used by the WHAAM application for the treatment of the ADHD disease at school and at home. The partnership elaborated a document, the Framework, to explain such as the project will apply this approach.
- The use of ICTs in the field of the health applications is a very relevant topic of the WHAAM project. The aspects related to the quality of the design of technological application addressed to support treatment of health diseases is the object a specific document, produced by the WHAAM consortium: Quality in mental health applications.
- Finally, the management of the learning process is a important part of this project. In
 fact, two specific activities were planned to support parents, teacher, and health
 professional in the monitoring activities and in the use of the tools developed in the
 project. The training courses and the e-learning module.

WHAAM Approach to Quality:

Vision of Quality:

For the purpose of the WHAAM project, the conceptualization of the Quality was the results of intensive collaborative interactions among the project partners. Besides, this phase sees the collaboration of other stakeholders, external to the project, with the aim to construct a meaningful and significant application able to support a complex process of ADHD observation in the natural settings.





Approach to Quality Management:

The management of the quality in the WHAAM project takes place with the engagement of the partners in a documented collaboration aimed at informing an adaptive and emergent method in the conduction of the various project's activities. The embraced approach follows the guidelines established by the EFQM (European Foundation for Quality Management) Excellence Model. (http://ww1.efqm.org/en/Default.aspx)

In particular, the monitoring of the quality the project is concentrated on the two following headings: Enablers and Results. The core focus of this Quality Report (QinW) is to identify the quality Enablers for the project, and to describe how they can help the achievement of the projects Results.

Quality Monitoring:

The main Quality Enablers are the Leadership and Partners, as well as the processes, subprocesses, and analysis procedures. The **Quality Committee** is in charge for monitoring the quality of the project.

The Quality Committee in the WHAAM Project:

The Quality Committee (QC) comprises of a representative of each of the partners.

Co-ordination: the co-ordination of quality monitoring is the responsibility of TCD (Trinity College Dublin). All other partners have a role in contributing to processes for quality monitoring and adhering to the processes agreed.

Functions: the main function of the committee is to develop processes to maintain and monitor quality within the project.

- a) The committee will engage in initial discussions to develop processes to manage and monitor quality.
- b) The committee will articulate and distribute these processes via this QinW.
- c) The committee will monitor the adherence to the QinW.

The Committee will adapt and document emergent processes and methods throughout the project.





Relationship between the Quality Committee with the other Committees:

The QC will liaise with the steering and technical committees to:

- a) Ensure the agreed processes for quality are adhered to.
- b) Adapt processes based upon developments in the project.
- c) Monitor the progress and quality of the deliverables from the work packages

Organization of the Quality Committee:

Members:

- President: Gavin Doherty, TCD, gavin.doherty@scss.tcd.ie
- Cidalia Alves, UAEI, <u>cidaliafalves@ese.ipp.pt</u>
- Andrea Bilbow, ADDISS, <u>andrea@addiss.co.uk</u>
- Maria Nikolaidou, AUTH mnikol@med.auth.gr
- Rosalia Rinaldi, CeDAp, <u>cedap.pa@hotmail.com</u>
- Luciano Seta, ITD, <u>Luciano.seta@itd.cnr.it</u>

Tasks:

- To subject the methods, processes, sub-processes, and outcomes of the project.
- To assess the validity of the methods, processes and outcomes of the project.
- To advice on the methods, processes and outcomes of the project.
- To participate in meetings as required.
- To submit three reports:
 - Quality in mental health application (July 2013)
 - Quality in WHAAM (this document) (July 2013)
 - Final Quality Report (November 2015)

Input: The member of the QC will be required to consider and advice on:

- The methodology for creating the Context Driven Framework (CDFw)
- The design of the WHAAM application
- The organization of the parent and teacher training courses
- The creation of the learning contents for the e-learning module

Meetings: The QC members are in charge for the organization of the quality meetings in person or via video conference. At minimum, the following quality meetings must be held during the project:

- 1st quality meeting (January 2013)
- 2nd quality meeting (July 2013)





Final quality meeting (October 2014)

Quality Enablers:

Leadership & Management: The project is led and managed by the Italian National Research Council CNR-ITD ¹

Managing the project activities: decision-making and monitoring activities are allocated to three different bodies:

Steering Committee: is responsible for the project on a strategic level and decision-making. The president of the Steering Committee is Antonella Chifari as Project Coordinator.

Technical Committee: is responsible for the project on a technical and operational level. The president of the Technical Committee is xxxx.

Quality committee: is responsible for developing a quality assurance manual to monitor the quality procedures applied by partners. The president of this committee is Gavin Doherty (TCD)

The quality criteria for Committees:

Meetings:

All meetings of the committees must adhere to the following criteria to ensure quality.

The president of the committee must:

- Circulate the agenda to the committee members prior to the meeting
- Adapt the agenda if necessary based upon the feedback from committee members
- Ensure the agenda of the meeting is covered during the meeting.
 - If circumstances prevent this, the items not dealt with must be noted and dealt with at the next meeting
- Minute the meetings
- Circulate the minutes of the meeting for approval to the committee members

Reports:

All reports and documents created by the committees must adhere to the following criteria to ensure quality:

¹ (Italian National Research Council - Institute for Educational Technologies- Palermo)





- They must use the WHAAM template
- They must be of a publishable standard
- They must be of an acceptable length
- They must reflect the objectives of the committee

Partners:

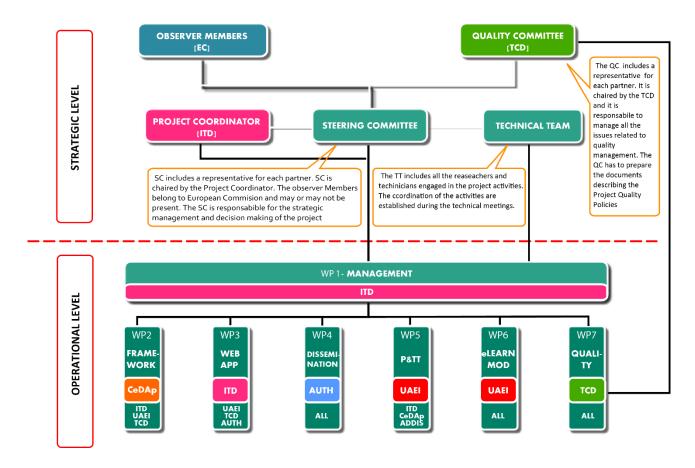
The project partners are institutions that play a key role in the area of ADHD treatments and researches and Technology Enhanced Learning. The consortium consists of six partners:

- Italy Italian National Research Council Institute for Educational Technology of Palermo (ITD);
- 2. Portugal Unit of Support of the Inclusive School, School of Education of the Polytechnic of Porto Institute (UAEI);
- 3. Italy Centro per i disturbi dell' apprendimento (Ce.D.Ap.),
- 4. Ireland School of Computer Science and Statistics, Trinity College Dublin (TCD);
- 5. Greece Aristotle University of Thessaloniki (AUTH);
- United Kingdom National Attention Deficit Disorder Information Support Service (ADDISS).

All partners are expected to contribute to each of the work packages (WPs) of the project; however, the responsibility for the coordination of particular Work Package has been allocated to individual partner, following the schema in the figure below.







Workpackage coordination:

Partner's responsibilities:

- ITD is responsible for the co-ordination of WP 1 "Management" and WP 3 "Web application development."
- Ce.D.Ap. is responsible for the co-ordination of WP 2 "Framework for ICT-based interventions for students with ADHD."
- AUTH is responsible for the co-ordination of WP 4 "Project Dissemination."
- UAEI is responsible for the co-ordination of WP 5 "Parents and teachers training" and
 WP 6 "ADHD e-Learning module."
- TCD is responsible for the co-ordination of WP 7 "Assessing the quality"

Policies





The core objectives of the project are outlined in the WHAAM Application. The project will be informed by EU policy on project management and quality assurance.

Resources:

Context Driven Framework (CDFw)

The CDFW aims at defining a common theoretical structure within the partnership underlying main factors and methodologies implemented both in the project activities and outcomes.

The Partnership Virtual Environment

It is a set of ICT based tools for productivity. The project will use free online tools for the management and sharing of documents, spreadsheets, presentations and graphs. The lead partner will introduce the partnership to these services that will be working since the beginning of the project.

Partner Meetings

Meetings will support the collaboration on the Partnership Virtual Environment and will inform on the progress toward objectives of the project. These meetings will take in two forms: virtual meetings and in-person. It is under the responsibility of the project leaders to minute and document these meetings and to make their results available to all partners.

Dissemination resources

Processes:

The aims and objectives of the project have been distilled into seven separate work packages and a set of deliverables to fulfill the aims and objectives of each work package have been identified.

Work Packages structure:

In order to fulfill the objectives of the WHAAM project the tasks required have been divided up into seven Work packages. The responsibility for the co-ordination of each package is allocated to a project partner.





(See Table 1 Work Packages)

Table 2 Work Packages

| WP 1: Management |
|--|
| WP 2: Framework for ICT-based interventions for students with ADHD |
| WP 3: Web application development |
| WP 4: Project Dissemination |
| WP 5: Parents and teachers training |
| WP 6: ADHD e-Learning module |
| WP 7: Assessing the quality |

Deliverables:

To ensure the productivity of the WP a set of deliverables for each package have been defined.

WP1: Management - coordination and management

- 1. Progress project report
- 2. Final project report
- 3. Partnership virtual environment
- 4. Kick-off meeting
- 5. Technical meetings
- 6. Minutes of meetings

WP2: Framework - implementation

Framework for ICT-based interventions for students with ADHD

WP3: Web application development - implementation

- 1. Web application
- 2. Web application contents
- 3. Language localization
- 4. Testing report

WP4: Project Dissemination - dissemination

- 1. Project website
- 2. Information on EVE
- YouTube channel



This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- Dissemination on Internet and press
- National meetings
- 6. Webinar on ICT-based interventions for students with ADHD
- 7. Promotional materials
- Final booklet

WP5: Parents and teachers training - dissemination

- 1. Training program
- 2. Training course

WP6: ADHD e-Learning module - exploitation of results

- 1. e-Learning module
- 2. Module accreditation
- 3. E-Learning contents

WP7: Assessing the quality – quality assurance

- 1. Meetings on quality
- 2. Minutes of meetings
- 3. Quality in mental health applications
- 4. Quality in WHAAM
- 5. Quality report

The role of work package coordinator:

The WP coordinator is responsible for fulfilling the following criteria to ensure progress and quality. The coordinator of the WP must

- Present the progress of the WP at national meetings.
- Adapt the process of the production of the deliverables to incorporate feedback from the partners.
- Allocate responsibility for relevant elements of the WP.
- Appropriate and use the resources necessary for the WP.
- Ensure the timeframe for the WP is adhered to.
- Undertake any sub-contracting necessary for the completion of the WP.





- Inform the partners of any issues that are detracting from the progress of the package.
- Document the progress of the WP in regard to processes and methodologies employed.

Time Management:

Dates for the completion of the deliverables have been set for each work package. These dated have been set in consultation with the partners and the WP coordinators.

In order to achieve the target users/audience: dates set it important for the steering/technical/quality committees:

- Communicate with the coordinators of the WP.
- Inform the coordinator of any revisions required in the deliverables.
- Document the progress of the WP deliverables.
- Document the completion of deliverables.

In order to achieve the target users/audience: dates set it important for the WP coordinator to:

- Make progress presentations to the partners
- Inform the partners of any issues that may delay or curtail the progress of the WP
- Request additional resources if needed to meet the due date

In order to achieve the target users/audience: dates set it important for the WP partners to:

- To fulfill the roles attributed to them by WP coordinator
- Inform the coordinator of any issues that may delay or curtail the progress of the WP
- Communicate with the WP coordinator with regard to the progress of the WP





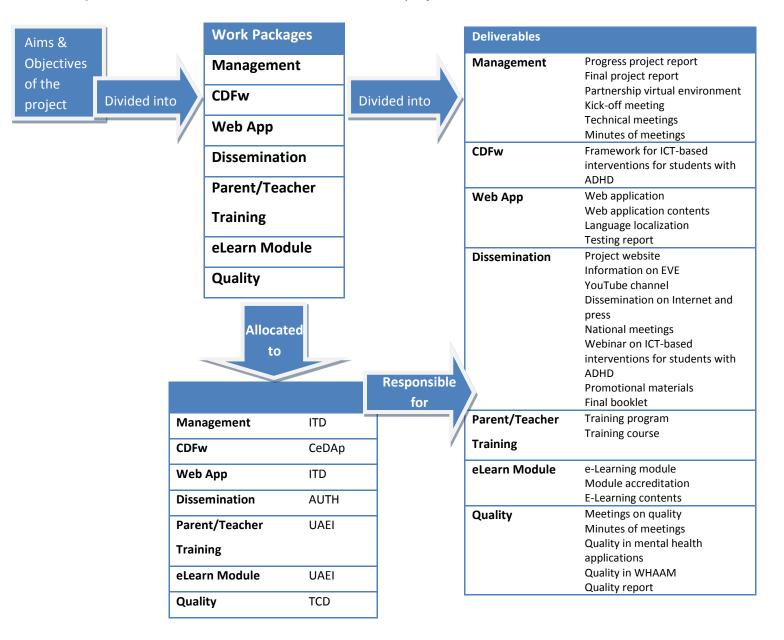
Table 3: WP deliverables

| Deliverable No | Deliverable title | Delivery date |
|----------------|---|---------------|
| 1.1 | Progress project report | 15 |
| 1.2 | Final project report | 30 |
| 1.3 | Partnership virtual environment | 2 |
| 1.4 | Kick-off meeting | 1 |
| 1.5/6/7 | Technical meetings | 7/21/28 |
| 1.8/9/10/11 | Minutes of meetings | 1/7/21/28 |
| 2.1 | Framework for ICT-based interventions for | 8 |
| | students with ADHD | |
| 3.1 | Web application | 21 |
| 3.2 | Web application contents | 18 |
| 3.3 | Language localization | 23 |
| 3.4 | Testing report | 21 |
| 4.1 | Project website | 1 |
| 4.2 | Information on EVE | 1 |
| 4.3 | YouTube channel | 1 |
| 4.4 | Dissemination on Internet and press | 6 |
| 4.5/6/7/8/9 | National meetings | 29 |
| 4.10 | Webinar on ICT-based interventions for students with ADHD | 23 |
| 4.11 | Promotional materials | 6 |
| 4.12 | Final booklet | 25 |
| 5.1 | Training program | 24 |
| 5.2 | Training course | 29 |
| 6.1 | e-Learning module | 25 |
| 6.2 | Module accreditation | 23 |
| 6.3 | E-Learning contents | 23 |
| 7.1/4/6 | Meetings on quality | 1/7/21 |
| 7.2/5 | Minutes of meetings | 1/7 |
| 7.2 | Quality in mental health applications | 7 |
| 7.3 | Quality in WHAAM | 7 |
| 7.7 | Quality report | 28 |



Figure 1: Model of

overall project workflow:





Deliverables Sub-Processes:

Due to the variety of output of the deliverables in the work package a set of developmental and collaborative sub-processes to ensure the quality have evolved.

| Creation of common | Collaboration to create a document about use of ICTs to monitor ADHD |
|------------------------|--|
| k User stories | •Discussion with stakeholder to gather user stories about observation of behaviors related to ADHD in different contexts |
| Mock-ups | •Design of private, public, and mobile interface of the WHAAM aplication, using the results of the user stories |
| WHAAM Applicatio | •Developing of the WHAAM application |
| Testing of application | •Tesrting of the functionalities of the application in various contexts |
| Training courses | •Organization of the training programs. Recruitment of parent and teacher to involve in the courses. Delivering pf the courses |
| eLearning conntent | •Preparation of the contents for the eLearning module |
| | |

Figure 2 WHAAM core deliverables Value Chain

Virtual Partnership Environment

Deliverable from WP1 Management coordinated by ITD.

Objectives:

- To provide Information on the project activities.
- To facilitate access to the Shared resources via web.
- To define the scope and aims of the application.
- To test and maintain the application.
- To update and monitor the contents of the public web site of WHAAM application.

Responsibilities

- ITD
- Technical committee
- All partners





Target users/audience:

- Public
- Stakeholders
- Policy makers
- EU advisors

Processes:

- Creation
- Updating

*Me*asures:

- Number of accesses
- Time span for update
- Number of pages
- The Relevance of information
- Usability
- Accessibility

Dependencies:

• The engagement of partners

Risk Assessment:

- Technical difficulties
- Failure of the partners to engage in collaboration

CDFw: Context Driven Framework

Deliverable from WP2 Framework for ICT-based interventions for students with ADHD, coordinated by CeDAp.

Objectives:

- To support communication and collaboration between partners
- To create a common vision about ADHD and ICTs application for monitoring behaviors
- To select international literatures
- To gather tools and instruments





- To define methodology and approach
- To verify functionalities
- To create the content
- To updating and monitor contents
- To review and translate the CDFw

Responsibilities:

- Work package co-ordination: CeDAp
- All partners
- Technical committee

Target users/audiences:

- Partners
- Researchers on the topic
- Parent and Teacher of ADHD students
- Health professionals
- EU advisors

Processes:

- Write CDFw
- Verifying information and linguistic forms
- Translate
- Update content

Measures:

- Number of accesses
- Level of Participation
- The use of the document

Dependencies:

- The creation of the Virtual Partnership Environment
- The engagement of partners





Risk Assessment:

- Methodological and technical difficulties
- Failure of the partners to engage in collaboration

Quality Analysis:

- The quality analysis of the CDFW will be evaluated by reference to the scientific literature on the topics
- An analysis of the data relative to the download of the CDFw

WHAAM Application

Deliverable from WP3 Web application development, coordinated by ITD.

Objectives:

- Definition of the application structure: public and private areas
- Identification of main features and technological tools
- Discussion with stakeholders
- Definition of the users stories
- Designing the application
- Testing the application

Responsibilities:

- Work package co-ordination: ITD
- ITD and AUTH to design the web application
- All partners to give feedback during the design and testing phase
- Stakeholder to collaborate in the definition of functionalities

Target users/audience:

- Parents and Teachers of ADHD students
- Health professionals
- Caregivers
- Stakeholder

Sub-processes:

Development of the user stories and mock-ups





Design and testing of the application

Measures

- Number of stakeholders involved
- Result of the usability tests
- Numbers of users
- Number of cases gathered

Dependencies

- The creation of the CDFw
- The development of the Virtual Partnership Environment

Risk Assessment:

- Relevant of the user stories
- Privacy issues and personal data storage
- Compatibility of the software solutions
- The usability

Quality Analysis:

- Testing usability
- Testing functionalities
- SWOT analysis

Parents and Teachers Training Courses:

Deliverable from WP5 Parents and teachers training, coordinated by UAEI.

Objectives:

- The design of a training course
- The use of the WHAAM application for monitoring behaviors
- The organization of the courses and the recruitment of parents, teachers, and health professionals
- The creation of a network around the ADHD student
- The implementation of a support for families and school





Responsibilities:

- UAEI to coordinate the organization of the training program
- CeDAp, ADDISS, and UAEI to recruit parents and teachers
- CeDAp, ADDISS, and UAEI to deliver the courses
- CeDAp, ADDISS, and UAEI to monitor the assessment process

Target users/audience:

Parent, teachers and caregivers

Sub-processes:

- Design
- Planning
- Enrollment
- Distribution
- Monitoring

Measures:

- Number of cases
- Number of parent and teacher enrolled
- Number of courses activated
- Number of sessions
- Rate of recede

Dependencies:

• The creation of the WHAAM application

Risk Assessment:

- The usefulness of the activated programs
- The involvement of families and school personals
- The usability of application
- The involvement of qualified health professionals
- The enrollment in each country





Quality Analysis:

- SWOT analysis
- Interviews
- Data analysis

e-Learning module:

Deliverable from WP6 ADHD e-Learning module, coordinated by UAEI.

Objectives

- To develop an e-Learning module called "Methodologies and technologies for monitoring and treatment of ADHD students"
- To construct a learning community
- Accreditation of the module at university level
- To deliver the module by means of a e-Learning platform

Responsibilities:

- Coordination: UAEI
- CeDAp, UAEI, ADDISS to create contents
- ITD and AUTH to manage the web system
- All partners in module accreditation process

Target users/audience:

- Students enrolled in psychological, medical, pedagogical faculties
- Teachers and/or experts working with ADHD students in order to improve their professional skills in a lifelong learning perspective

Sub-processes:

- Creation of contents
- Creation of e-learning contents
- Localization
- Accreditation
- Implementation of e-Learning platform





• Distribution of the module

Measures

- Number of accreditate faculties
- Number of enrolled students
- Number and quality of the didactic resources

Dependencies

CDFw

Risk Assessment:

- Accreditation process
- Involvement of professors and students
- Quality of the e-Learning resources

Quality Analysis:

Method to be used to analyze the Quality of this deliverable to be advised to the Quality Committee by the WP coordinator.

Project Reports:

Deliverable from work packages: 1 Management and 7 Assessing the quality coordinated by ITD and TCD.

Objectives:

- To produce and disseminate three reports:
 - Project progress report
 - Final project report
 - Quality report

Responsibilities:

- ITD
- TCD

Target users/audience:

Partners





FU

Sub-processes:

- Gathering of relevant information
- Consultation with all partners
- Report production

Measures

- The submission to the EU
- Agreement of partners
- Evaluation by external expert

Dependencies

- The progress of the Work packages
- The production of the relevant deliverables
- Communication and collaboration among the partners
- Effective WP coordination.
- The application of the QinW
- The following of Criteria for meetings and reports (as outlined above).

Risk Assessment:

- The delays in the production of deliverables which are dependencies
- Failure of the partners to communicate and progress the project

Quality Analysis:

Method to be used to analyze the Quality of this deliverable to be advised to the Quality Committee by the WP coordinator.

The Quality Report:

The adherence to and use of the QinW and the Quality inmental health application of each of the deliverables will be contained in the quality report produced at the end of the project.

