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1st DESC I TESTING PHASE REPORT

This document has the goal to report the main aspects emerged during the 1st testing phase (academic course 2016-2017). Each school must to fill in a report for each alternating training scenario realized. Your information will be valuable both for the reporting to the National Agency and to better know the experiences realized in each school.

Overall section

Indicate the course of studies and the curricula involved in the alternating training experience (School itinerary, grades and age of student involved in the alternating training project)

Technical School
Curricula of Electronics (2 classes) and Informatics/ I.T (1 class).
4th class (school year 2016-2017).
Age 17

Indicate the partner/s formally involved in the alternating training experience (enterprises, social actors etc)

IRPPS - CNR
FormaScienza
Assoknowledge

Describe the scenario and target competences

Design of a home automation system, related to elder citizens' needs.

- 1: Take responsibility for completion of tasks in work or study
- 2: Adapt own behaviour to circumstances in solving problems
- 3: Exercise self-management within the guidelines of work or study contexts that are usually predictable,

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but are subject to change

- 4: Team working
- 5: Identify enterprise functional and structural features
- 6: Develop electrical and computer applications
- 7: Communicate technical innovations to the public
- 8: Design information strategies for the local community
- 9: Design and differentiate according to marketing strategies

Describe the kind of Living Lab activated (dates, functions, objectives and targets, results?)

Definition of the project concept/design

Definition of the project concept, matching the problem with the identified resources and competences.
Analysis and evaluation involving identified users and associations

Describe the connections with the local community

Interviews to grandparents and to some representatives of the elderly centre
Interviews to some actors within the “*maker movement*”

Indicate the participatory practices activated

Cooperative learning:

- Brainstorming
- Metaplan (needs analysis and concept design)
- Group interviews to users
- Group web inquiry about technologies mapping
- Collective analysis of interviews

Personal task: interview to grandparents

Design Phase

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Describe the activities developed in the Design phase (stakeholders involved, number of meetings, positive and critical aspects etc)

Meetings with:
representatives of Formascienza and Assoknowledge
teachers, tutors, students (stakeholders)
N° of meetings: 6 (~18 hrs)
Positive aspects: Working in cooperation with companies, associations and research institutions of the local area.
Critical aspects: Difficulty in the formulation of a timetable for the meetings due to the different engagements of the parties involved .

Who defines the alternating training program of the student? If possible, give further information about the role of each part in defining the alternating training program of each student

The alternating training program is defined by the Scientific Technical Board, by the Teachers' Board, by each Class Board on the basis of the suggestions/offers from the territory. These are aptly evaluated by the school tutors and then presented to the students, who, according to their potentialities and aspirations, stipulate an educational agreement which binds them to the school and the company/ research institute. Once the agreement has been signed, of great importance is the co-design phase with external tutors and trainers where the team identifies the best tools to employ and the work plans to follow for the best implementation of the educational path.
In this case it was decided to involve the whole class as a totally new methodology was being analysed and implemented.

Implementation phase

Please, describe the activities developed in the Implementation phase (specify how much time in the school and how much time in the enterprise/ describe the role of teachers and enterprises in the development of students' alternating training)

30 students have carried out 36 hrs of alternating training with *Energy Green Park*, Padova dealing with the following activities :

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1. Blue and Green Economy
2. Renewables : Photovoltaic
3. Renewables : Green Building
4. Renewables : Domotics and Standard KNX
5. FAB LAB and 3D Printing
6. GIS and Drones
7. Start-up and Business Simulation
8. MBOT

At school, 10% of each subject curriculum has been devoted to activities and tuition for a total of 90 hs. 18 students (class IV B) have successfully completed a self-training CISCO course "Introduction to Internet of Everything", achieving the relative certification (corresponding to 20 hrs of self-training)

In extra-curricular time 17 over 39 hrs have been devoted to activities defined in the framework of a formal agreement with Formascienza and Assoknowledge

The internal and external tutors have cooperated in the students' guidance and training, towards the achievement of transversal competencies, and kept the logbook.

The following year will be dedicated to the achievement of technical-professional competences.

Evaluation phase

Please, describe activities developed in the Evaluation phase and specify who is responsible for student evaluation during alternating training?

- A. The teachers
- B. School entities (please specify): _____
- C. The government
- D. The enterprise
- E. Both school entities and enterprises
- F. A mixed system that also includes other stakeholders

Satisfaction questionnaires have been administered to students, teachers and parents.

The internal Tutors in conjunction with the corresponding Class Boards have been responsible for the students' evaluation.

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Evaluation Framework

Results of the Focus groups of the Evaluation Framework (to be filled in for each focus group realized)

Please describe, in a synthetic way, background and issues addressed during the Focus Groups and include the input provided by the participants.

It has not been possible to organize Focus Groups due to the delay of the scheduled activities during the implementation phase.

Date:

Venue:

Participants:

NAME OF TUTORS /TEACHERS /MODERATORS	ORGANISATION	EMAIL

Please describe, in a synthetic way, background and issues addressed during the Focus Groups and include the input provided by the participants.

Suggestions for the Toolkits improvement

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Please indicate, for each toolkit (teacher toolkit, student toolkit and evaluation toolkit) the critical issues emerged during the testing phase and give a specific input to overcoming it.

Teacher toolkit useful in the designing process mostly concerning scenario designing and description/presentation of living lab.

About student toolkit: the implementation is still in progress (for this year) and we postpone the full evaluation until the end.

In general we'd like toolkits less repetitive and simpler, in order to make them more accessible and useful in practice (not only as background).

We should analyse and identify the way to achieve it.