

DESCI



DESCI

Evaluation Framework – Results 2016-
2017

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INDEX OF CONTENTS

Introduction	4
1. EVALUATION CRITERIA USABILITY	7
Indicator 7: Level of satisfaction of learners.....	12
Indicator 8: Level of satisfaction of teachers.....	13
Indicator 9: Level of satisfaction of tutors	14
Indicator 10: Level of Usability.....	15
Indicator 1: Percentage of reduction of dropout rates.....	16
Indicator 2: Number of working tables realised	17
Indicator 3: Number of people involved.....	17
Indicator 4: Number of toolkits translated into the different languages	18
Indicator 5: Number of protocols for the adoption of the DESCi system.....	18
Indicator 6: Consistency between expected and actual workloads and plan	19

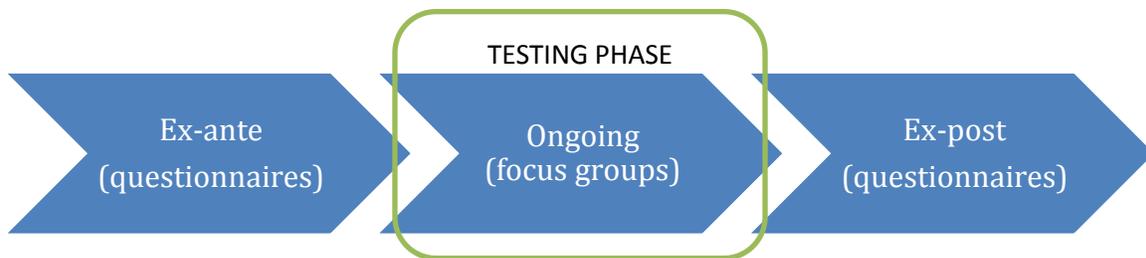
Introduction

This report presents the draft results of the Evaluation Framework analysis of the DESCI project to be presented and discussed with the DESCI consortium during the project meeting to be held in Athens the 4th and 5th of September 2017. The data gathered in this document is the result of the collection of data by the three schools participating in the DESCI project following the instructions included in the DESCI Evaluation Framework which last update was delivered the 28th of April 2017.

The Evaluation Framework established two evaluation tools to carry out the evaluation which were:

- Two focus groups (one per year of implementation) to evaluate the usability and effectiveness of the toolkits and DESCI activities during the ongoing processes.
- Five questionnaires to perform an ex-ante and ex-post evaluation to assess the toolkits usability and effectiveness.

Figure 1: Evaluation system structure



The Evaluation Framework pretends to provide tools to evaluate the evaluation criteria included in the table in next page.

This document will present in Section 1 the conclusions regarding the evaluation criteria “**Usability**” obtained from the analysis of the Focus Groups conclusions and from the Ex-post questionnaires for learners, teachers and tutors. The data provided to Polibienestar to undertake this analysis is the following:

Table 1: Tools available and data gathered to evaluate the usability criteria

Tool	Data	Comments
Report on focus groups (testing phase report)	Information provided by the Greek (Focus group A and B) and Spanish School (Focus group A) regarding the focus groups	The Italian school has not been able to organize the focus groups due to a delay in the implementation of the testing phase.
Ex-post questionnaires for learners, teacher and	48 responses from learners, 6 responses from teachers	The Spanish and Italian schools did not completed the ex-post questionnaires

tutors	and 2 responses from tutors of the Greek School	<p>in Lime Survey due to different reasons:</p> <ul style="list-style-type: none"> - The Italian school will finish the implementation of the activities of the first year in October 2017. Once the activities are finished they will be able to complete the ex-post questionnaires. - The Spanish school used another template, probably due to a confusion between the tools of the Evaluation Framework and the Evaluation Toolkit. During the project meeting it will be explored the possibility of fulfilling the questionnaires during September 2017.
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In Section 2 the conclusions regarding the evaluation criteria “**Effectiveness**” will be presented. This conclusions have been obtained after the analysis of the Ex-ante and Ex-post questionnaires for school. The data provided to Polibienestar to undertake this analysis is the following:

Table 2: Tools available and data gathered to evaluate the effectiveness criteria

Tool	Data	Comments
Ex-ante and ex-post questionnaires for the Schools	Information provided by the Greek and Spanish School.	The Italian school has not been able to gather the data regarding the ex-ante questionnaire as do not have that information available. Regarding the ex-post questionnaire it will be provided after the end of the first year implementation in October 2017.

Table 3: Evaluation criteria, indicators, expected results from the DESCI proposal and evaluation tools

EVALUATION CRITERIA	INDICATORS	EXPECTED RESULT	TOOLS
Effectiveness	1. Percentage of reduction of dropout rates	Decrease in student dropout rates in classes involved in testing phase (-10%)	Ex-ante questionnaire Ex-post questionnaire
	2. Number of working tables realised	15 working tables per year per country, total 90	Ex-post questionnaire
	3. Number of people involved	18 teachers, 6 tutors (business representatives), 12 learners involved	
	4. Number of toolkits translated into the different languages	3 multilingual toolkits validates	
	5. Number of protocols for the adoption of the DESCI system	3 protocols that formalize the adoption of the DESCI system in the schools involved	
	6. Consistency between expected and actual workloads and plan	100% of implementation of the project according to the workloads and plan	
	Increase of performance of students participating in the DESCI project	Improving the performance of the students involved in testing phase (final evaluation of the students improved by 20% compared to students not involved in the experimental process)	To be measured in the Evaluation Toolkit ¹
	Increase of auto-efficacy in learners	Positive self-assessment evaluation from learners	To be measured in the Evaluation Toolkit ²
Usability	7. Level of satisfaction of learners	Positive feedback of learners at the end of the testing phase	Ongoing (focus groups)
	8. Level of satisfaction of teachers	Positive feedbacks of teachers at the end of the testing phase	
	9. Level of satisfaction of tutors	Positive feedbacks of tutors at the end of the testing phase	
	10. Level of usability of the toolkit	Positive feedbacks on high usability of the toolkits	Ongoing (focus groups) Ex-post questionnaire

¹ Coordinating partner Assoknowledge

² Coordinating partner Assoknowledge

1. Evaluation criteria 1: Usability

The Evaluation Framework established two tools to carry out the evaluation of the usability of the three toolkits of the DESCI project. These tools were:

- The implementation of two types of focus group during the first testing phase according with the Evaluation Framework. The first type of focus group (A) to discuss the usability of the toolkits with teachers and tutors and the second type (B), with students.
- Three ex-post questionnaires for learners, teachers and tutors.

This evaluation criteria is measured by using the following four indicators:

- Level of satisfaction of learners
- Level of satisfaction of teachers
- Level of satisfaction of tutors
- Level of usability of the toolkit

According with the data gathered until August 2017 (see table 1) the main conclusions obtained from the Testing Phase reports provided by the Greek and Spanish schools will be presented in the first sub-section. In the second sub-section, the results of the ex-post questionnaires provided by the Greek school will be presented.

1.1. Conclusions regarding the usability of the toolkits by the Focus Groups (Greece and Spain)³

1ST EXPERIMENTAL SCHOOL (GREECE)	C.F. SOMORROSTRO (SPAIN)
General description of the focus groups (date, venue and participants)	
<p>Focus group A: teachers and tutors Dates: 17/05/2017 Participants in Focus Group 1: 5 teachers from the 1st Experimental School of Athens and 1 tutor from a public company.</p> <p>Focus group B: learners Dates: 17/05/2017 Participants in Focus Group 2: 2 teachers from the 1st Experimental School of Athens and 7 students representing four formative itineraries.</p>	<p>Focus group A: teachers and tutors Date: 24/05/2017 Participants: 9 people, including:</p> <ul style="list-style-type: none"> - 6 representatives of the company involved in the DESCI project (including the general director and different technicians) - 2 teachers from Somorrostro - 1 moderator from Somorrostro
Input regarding the DESCI experience and methodology in general	
Focus group A: teachers and tutors	Focus group A: teachers and tutors

³ No focus groups have been organized so far by ITS EMRICO FERMI (ITALY) as the activities of the first testing phase will finish in October 2017

1ST EXPERIMENTAL SCHOOL (GREECE)	C.F. SOMORROSTRO (SPAIN)
<p>Positive experience in general that allows working in a way different to the conventional model.</p> <p>The implementation of the methodology allows to put knowledge and develop skills in real settings.</p> <p>Focus group B: learners</p> <p>Positive experience in general that motive students as it allows exploring talents, career opportunities, developing new skills and applying theoretical knowledge.</p>	<p>Regarding the implementation of the project, teachers and tutors identified benefits both for the school, for the teachers and for the learners related with the acquisition of new experience and new ways of learning, the development of skills and the resulting innovative outcomes with exploitation potential.</p> <p>Regarding the Desci methodology, the approach suits the resolution of problems in real contexts within VET programmes and it suitable also for any level of education. It contributes to develop creativity and innovation skills facing real problems and finding solutions to a challenge proposed similar to a Problem Based Learning Methodology. This approach suits the needs of the labour market and is in line with the educational strategy of the Basque and Spanish Governments.</p>
Input regarding skills	
<p>Focus group A: teachers and tutors</p> <p>There have been concrete contributions to four out of five of the categories of kills in the Evaluation Toolkit (IO4): technical and professional, linguistic, ICT, and creativity and innovation skills. Social and civic skills were also developed but in a more indirect way.</p> <p>Focus group B: learners</p> <p>Learners report strengthening of basic and technical skills, professional skills (responsibility) and ICT skills.</p>	<p>Focus group A: teachers and tutors</p> <p>The implementation of the scenarios in the schools contribute to strengthen the skills of students clearly, both technical and transversal skills (Q8).</p> <p>There have been concrete contributions to the five of the categories of kills in the Evaluation Toolkit (IO4): technical and professional, linguistic (communication), ICT (Business skills/financial skills), social and civil skills (team work and roles) and creativity and innovation skills.</p>
Strengths	
<p>Focus group A: teachers and tutors</p> <p>The methodology is flexible enough to allow the implementation in a Junior High School introducing the concept of alternating education that, not being entirely real, created a virtual enterprise environment.</p> <p>Increase motivation through promoting work/projects in areas of interest of students.</p>	<p>Focus group A: teachers and tutors</p> <p>Innovative approach bringing together students-teachers-company.</p> <p>Multidisciplinary approach that contributes to creative thinking.</p> <p>The scenario provides an added value to Vocational Education and Training.</p>

1ST EXPERIMENTAL SCHOOL (GREECE)	C.F. SOMORROSTRO (SPAIN)
<p>Focus group B: learners</p> <p>The continuous and intense collaboration with teachers and tutors</p> <p>Taking initiative and proposing innovative actions to achieve a common goal.</p>	<p>For the company, the possibility to work with VET schools and students leverages the company own innovation potential, making possible to develop new projects.</p> <p>In words of the General Director in Tecuni, the experience “is a round project in which the company develops its innovation strategy, the students learn and the teachers and tutors’ professional development and long life learning grows”.</p> <p>Teacher informed that even parents contacted them in order to inform about a change of behavior in their children and their increased motivation.</p> <p>Tutors pointed out the good personal connection with students and their motivation. Also the need to welcome students in the companies as they represent the future and tutors must spend/dedicate time teaching them. Also was mentioned the need to trust new people (students) with high qualifications, as they bring problems with already made solutions. In the personal side they pointed out the gratification and proudness of having contributed to the learning process of students.</p>
Points of weakness	
<p>Focus group A: teachers and tutors</p> <p>Reduce overlaps and repetitions in the toolkits as well as linguistic ambiguities.</p> <p>To adapt the evaluation tools to the peculiarities of the scenarios.</p> <p>Focus group B: learners</p> <p>Due to the legal and educational framework, the students didn’t have the possibility to participate in an apprenticeship in a real setting. This weakness was overcome by organizing meetings with professionals of the real market.</p>	<p>Focus group A: teachers and tutors</p> <p>Transversal skills such as communication should be more valued and worked within school.</p> <p>Also the economic and cost issue should be more developed throughout the experience as it is key for the project development within private companies.</p> <p>The presentation of projects could be improved in some innovative ways.</p> <p>Teachers highlighted that some of the participant students were in “school mode” during the experience and that it took some</p>

1ST EXPERIMENTAL SCHOOL (GREECE)	C.F. SOMORROSTRO (SPAIN)
	<p>time to involve them in the project.</p> <p>Also, teachers point out that it would have been better to have more hours dedicated to meetings within each team and a better initial planning. Also they mentioned the lack of business mentality.</p> <p>Some teachers of other subjects complained that at some points the performance of some students went down, because they were too centered in their projects.</p> <p>All participants highlighted the readiness of the Living Lab (Somorrostro-Tecuni-Students) for the next challenge and are thinking on new ideas for next school year 2017-2018.</p>
Suggestions	
<p>Focus group A: teachers and tutors Include exemplary scenarios</p> <p>Adaptation of the evaluation toolkit and evaluation framework to “virtual apprenticeships” as the one in Greece.</p> <p>Focus group A: learners Include exemplary scenarios</p> <p>Increase the opportunities to meet professionals/tutors</p>	<p>Focus group A: teachers and tutors Students having participated in the Desci experience should encourage and motivate 1st year students to participate and drive innovative project within school.</p> <p>Regarding the toolkits for learners, teachers and tutors: The methodological guidelines and operational tools are considered to be quite complex for the 3 target groups –teachers, tutors and students-. However they can be used in a modular way, but this should require some adaptation. Teachers and tutors remind the need to reduce paper work and suggest the reduction of literature content. They think it is better to have a short training before and then only use the Scenario template and the evaluation rubrics. (Q7-9)</p> <p>Q10- The timeline should be adapted to the reality of each school.</p> <p>Regarding the evaluation toolkit: Q11- 14- Although we have used our own templates, which fit perfectly the evaluation toolkit because it is based on rubrics, we must say that the evaluation toolkit allows the</p>

1ST EXPERIMENTAL SCHOOL (GREECE)	C.F. SOMORROSTRO (SPAIN)
	evaluation of the skills acquired. As for the previous toolkits, the evaluation processes must be adapted to each school's reality and requirements, as most education systems in Europe are quite rigid.

Suggestions received regarding the Evaluation Framework

The living lab term is being used in DESCi for a continuous learning itinerary. In the evaluation framework questionnaires though has been used to describe working tables and this was rather confusing. Furthermore, in our case, the design and implementation phase overlapped. Therefore it was very difficult and rather useless to fill in the questionnaires implemented in LimeSurvey more than one time (one for living labs, one for activation phase, one for regimen phase and one for focus groups). Maybe a checklist should be added just to check in which phases the student/teacher participated.

Indicator 7: Level of satisfaction of learners

The indicator “Level of satisfaction of learners” under the evaluation criteria “Usability” of the DESCI project has been assessed through the use of two different type of tools: 1) Questionnaire 3. Ex-post questionnaire for learners (Detailed results in Annex 1), and 2) Focus groups.

Draft conclusions regarding the indicator level of satisfaction of learners

Expected result	Element evaluated	Level of achievement of the expected result	Recommendations or possible contingent measures
Positive feedback of learners at the end of the testing phase	Living Lab	High (Organization, Content, Time and schedule, Facilities, teachers and tutors)	<p>Organization: increase the number of teachers and tools.</p> <p>Content: Better explain the context and theory below the practical issues.</p> <p>Time and schedule: Make it longer and improve the schedule to facilitate attendance</p>
	Activation phase	<p>High (Content, Facilities, Teachers and Tutors)</p> <p>Medium-High (Organization)</p> <p>Medium (Time and schedule)</p>	<p>Organization: Try to slightly reduce the number of participants in this activity</p> <p>Content: Better explain the context and theory below the practical issues.</p> <p>Time and schedule: Try to confirm with the participants the length of the activities during the testing phase.</p>
	Regimen phase	<p>High (Time and Schedule, Facilities, Teachers and tutors)</p> <p>Medium-High (Content)</p> <p>Medium (Organization)</p>	<p>Organization: Try to reduce the number of participants to have enough tools, more possibilities for interaction and less crowded activities.</p> <p>Content: Better explain the context and theory below the practical issues.</p>
	Focus groups	<p>High (Content, Time and Schedule, Facilities)</p> <p>Medium-High (Organization)</p>	<p>Organization: Increase the number of teachers and tools.</p> <p>Content: <i>Contradictory results.</i></p> <p>Teachers and tutors:</p>

Indicator 8: Level of satisfaction of teachers

The indicator “Level of satisfaction of teachers” under the evaluation criteria “Usability” of the DESCI project has been assessed through the use of two different type of tools:

1. Questionnaire 4. Ex-post questionnaire for teachers (Detailed results in Annex 2).

Draft conclusions regarding the indicator level of satisfaction of teachers

Expected result	Element evaluated	Level of achievement of the expected result	Recommendations or possible contingent measures
Positive feedbacks of teachers at the end of the testing phase	Living Lab	High (Organization, Content, Time and Schedule) Medium-High (Facilities)	Facilities: Improve rooms and offices
	Activation phase	High (Organization, Time and Schedule) Medium-High (Content)	Organization: try to increase the chances of interaction with learners Content: include some innovate content for people who already knew the theoretical content Facilities: Improve rooms and offices
	Regimen phase	High (Organization, Content, Time and Schedule) Medium-High (Facilities)	Content: include some innovate content for people who already knew the theoretical content Facilities: Improve rooms and offices
	Focus groups	High (Organization, Content, Time and Schedule) Medium-High (Facilities)	Organization: try to increase the chances of interaction Content: include some innovate content for people who already knew the theoretical content and check if further theoretical information should be included.

Indicator 9: Level of satisfaction of tutors

The indicator “Level of satisfaction of tutors” under the evaluation criteria “Usability” of the DESCI project has been assessed through the use of two different type of tools: 1) Questionnaire 5. Ex-post questionnaire for tutors. (Detailed results in Annex 3) and 2) Focus groups.

Draft conclusions regarding the indicator level of satisfaction of tutors

Expected result	Element evaluated	Level of achievement of the expected result	Recommendations or possible contingent measures
Positive feedbacks of tutors at the end of the testing phase	Living Lab	High (Content, Time and Schedule, Facilities) Medium-High (Organization)	Organization: try to increase the chances of interaction with learners and reduce number of participants Content: There is a divergence among the two tutors who evaluated the capacity of participants to implement the theory in real settings so this should be reviewed for next year.
	Activation phase	High (Organization, Content, Time and Schedule, Facilities)	Content: There is a divergence among the two tutors who evaluated the capacity of participants to implement the theory in real settings so this should be reviewed for next year.
	Regimen phase	High (Organization, Time and Schedule, Facilities) Medium (Content)	Content: Include some innovate content for people who already knew the theoretical content. There is a divergence among the two tutors who evaluated the capacity of participants to implement the theory in real settings so this should be reviewed for next year. Check if the activities should be less practical.
	Focus groups	High (Organization, Time and Schedule, Facilities) Medium-High (Content)	Content: Try to increase the capacity of participants to implement the theory in real settings so this should be reviewed for next year.

Indicator 10: Level of Usability

The indicator “Level of usability” under the evaluation criteria “Usability” of the three toolkits of the DESCI project has been assessed through the use of two different type of tools: 1) Ex-post questionnaires addressed to the three target groups of the project (Detailed results in Annex 1, 2 and 3) and 2) Focus groups with the three target groups of the toolkits (learners, teachers and tutors)

Draft conclusions regarding the indicator usability of the toolkits

Expected result	Element evaluated	Level of achievement of the expected result	Recommendations or possible contingent measures
Positive feedbacks on high usability of the toolkits	Intuitive design	Toolkit for learners: Medium-Low Toolkit for teachers and tutors: Medium (teachers); no clear result (tutors) Evaluation toolkit: Medium (teachers)	Toolkit for learners: Improve the structure of the toolkits for make it easier to understand and use an easier language in the toolkits Toolkit for teachers and tutors: general review to make it more usable Evaluation toolkit: general review to make it more usable
	Ease of learning	Toolkit for learners: Medium-High Toolkit for teachers and tutors: Medium (teachers); no clear result (tutors) Evaluation toolkit: Medium-High (teachers)	
	Memorability	Toolkit for learners: High Toolkit for teachers and tutors: Medium (teachers), High (tutors) Evaluation toolkit: Medium (teachers)	

Indicator 1: Percentage of reduction of dropout rates

The indicator “Percentage of reduction of dropout rates” under the evaluation criteria “Effectiveness” of the DESCI project has been assessed through the results obtained in the Questionnaires 1 Ex-ante questionnaire for schools and 2. Ex-post questionnaire for schools

Draft conclusions regarding the indicator “Number of people involved”

Expected result	Level of achievement of the expected result	Recommendations or possible contingent measures
Decrease in student dropout rates in classes involved in testing phase (-10%)	<p>High (IT Enrico Fermi: no drop-out in the ex ante and ex post questionnaires)</p> <p>High (1st experimental school of Athens: no drop-out in the ex ante and ex post questionnaires)</p> <p>Not evaluated yet: Somorrostro (questionnaire missing in Lime Survey)</p>	<p>Check the questionnaires send by the schools as there is some incongruence with the name of the formative itineraries and the information provided in each of them.</p> <p>Consider not using Lime Survey for these questionnaires (could be easily fulfilled on paper).</p> <p>Check with Somorrostro if there was a problem when submitting the info through lime survey</p>

Indicator 2: Number of working tables realised

The indicator “Number of working tables realised” under the evaluation criteria “Effectiveness” of the DESCI project has been assessed through the results obtained in the Questionnaire 2. Ex-post questionnaire for schools

Draft conclusions regarding the indicator “Number of people involved”

Expected result	Level of achievement of the expected result	Recommendations or possible contingent measures
15 working tables per year per country, total 90	50%: IT Enrico Fermi: 6 (2016-2017) 50%: 1 st experimental school of Athens: 7 (2016-2017) Not evaluated yet: Somorrostro (questionnaire missing in Lime Survey)	Check the possibility of increasing the number of working tables organized for the next year testing phase to achieve the 15 working tables per year per country.

Indicator 3: Number of people involved

The indicator “Number of people involved” under the evaluation criteria “Effectiveness” of the DESCI project has been assessed through the results obtained in the Questionnaire 2. Ex-post questionnaire for schools

Draft conclusions regarding the indicator “Number of people involved”

Expected result	Level of achievement of the expected result	Recommendations or possible contingent measures
18 teachers, 6 tutors (business representatives), 12 learners involved	Not analysed yet	

Indicator 4: Number of toolkits translated into the different languages

The indicator “Number of toolkits translated into the different languages” under the evaluation criteria “Effectiveness” of the DESCI project has been assessed through the results obtained in the Questionnaire 2. Ex-post questionnaire for schools

Draft conclusions regarding the indicator “Number of protocols for the adoption of the DESCI system”

Expected result	Level of achievement of the expected result	Recommendations or possible contingent measures
3 multilingual toolkits validates	100%: IT Enrico Fermi Not fulfilled yet by the 1 st experimental school of Athens (no translated) Not evaluated yet: Somorrostro (questionnaire missing in Lime Survey)	Collecting the translated toolkits Translating the toolkits (definitive version) Check with Somorrostro if there was a problem when submitting the info through lime survey

Indicator 5: Number of protocols for the adoption of the DESCI system

The indicator “Number of protocols for the adoption of the DESCI system” under the evaluation criteria “Effectiveness” of the DESCI project has been assessed through the results obtained in the Questionnaire 2. Ex-post questionnaire for schools

Draft conclusions regarding the indicator “Number of protocols for the adoption of the DESCI system”

Expected result	Level of achievement of the expected result	Recommendations or possible contingent measures
3 protocols that formalize the adoption of the DESCI system in the schools involved	Not evaluated yet	Creating protocols / Collecting the protocols

Indicator 6: Consistency between expected and actual workloads and plan

The indicator “Consistency between expected and actual workloads and plan” under the evaluation criteria “Effectiveness” of the DESCI project has been assessed through the results obtained in the Questionnaire 2. Ex-post questionnaire for schools

Draft conclusions regarding the indicator consistency between expected and actual workload and plan

Expected result	Level of achievement of the expected result	Recommendations or possible contingent measures
100% of implementation of the project according to the workloads and plan	Not evaluated yet	