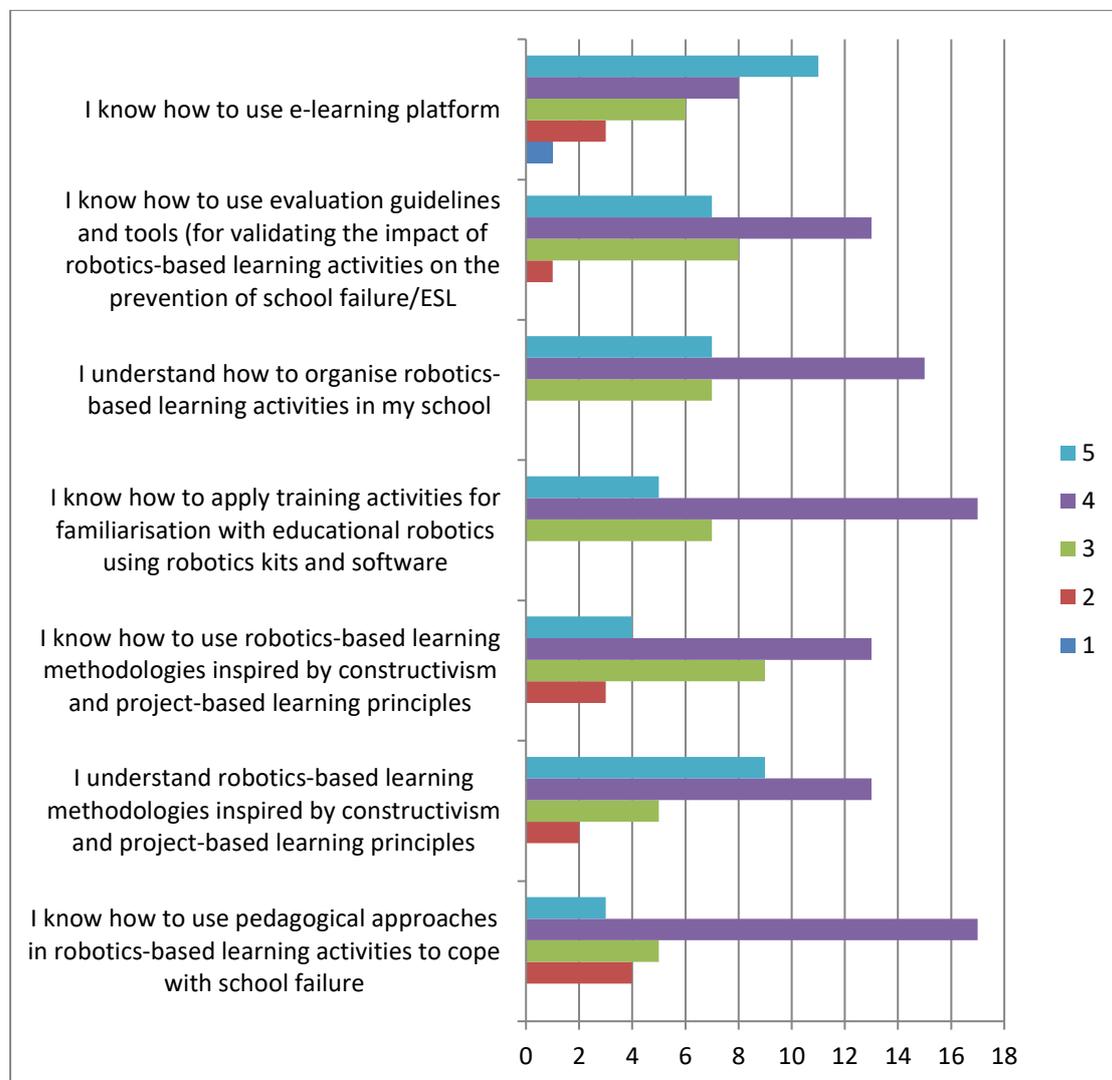




Training course evaluation Training course in Athens 23.02.-29.02.2016.

The first training course took place in 7th Municipality of Athens (Athens) from 23rd till 29th of February. After training course, teachers were asked to evaluate the training course (see annex 1).

In the beginning, there were questions about training course activities, where teachers had the possibility to answer them by evaluating statement in Likert scale, where 1– Strongly disagree, 5 – Strongly agree by circling the correct answer. All results are summarised in picture No 1.



Picture 1. Results of first training course evaluation

Suggestions how could we develop and improve the curriculum of training course

1. More specific guides for the development/implementation



2. The evaluation instruments must be translated in native languages in order to provide reliable results
3. It was quite good and we understood the method we should approach for activities with our students
4. I appreciate that many hours were dedicated to practical activities
5. should be more time training activities with robot
6. we need more hours for training
7. Maybe some more practical examples should be included. Needed longer seminar
8. You don't have to erase the open questions because these questions give the feeling of students.
9. You must translate for people (programm has enough money)
10. Questionnaire is very draft
11. Next time we should change of groups several times in context of one project, for diversity of experience and skill level with robots. So we could learn more
12. Focus on problem solving issues
13. Updating the class environment with meaningful and related with our project activities, reports etc.
14. More examples
15. We need more hours for training and learning platforms
16. I agree that somehow students must say if they like it or not.
17. It might be better if there was more time. In this case we should have the possibility to experiment more doing step-by-step all of the activities
18. We must have more hours to improve the course
19. Give an entirely open activity, provide sensors etc. On Arduino lesson
20. Small project 6h with worksheets
21. Provide an emulator to see the result of Lego Mainsstorms
22. Add activities with Scratch and Ardenimo
23. More ideas with Ardenimo micro controller during the workshop
24. It is a good idea to avoid qualitative questions as student would not answer them

Annex No 1

Evaluation of training course

We invite you to evaluate training course you have participated. Please respond openly to the following questions. We appreciate your time and feedback!

Please evaluate following statements in points from 1-5, where 1– Strongly disagree, 5 – Strongly agree by circling the correct answer



1. I know how to use pedagogical approaches in robotics-based learning activities to cope with school failure

1 2 3 4 5

2. I understand robotics-based learning methodologies inspired by constructivism and project-based learning principles

1 2 3 4 5

3. I know how to use robotics-based learning methodologies inspired by constructivism and project-based learning principles

1 2 3 4 5

4. I know how to apply training activities for familiarisation with educational robotics using robotics kits and software

1 2 3 4 5

5. I understand how to organise robotics-based learning activities in my school

1 2 3 4 5

6. I know how to use evaluation guidelines and tools (for validating the impact of robotics-based learning activities on the prevention of school failure/ESL)

1 2 3 4 5

7. I know how to use e-learning platform

1 2 3 4 5

8. Do you have any suggestions how could we develop and improve the curriculum of training course?



ROBOESL Project
2015-1-IT02-KA201-015141

Co-funded by the
Erasmus+ Programme
of the European Union



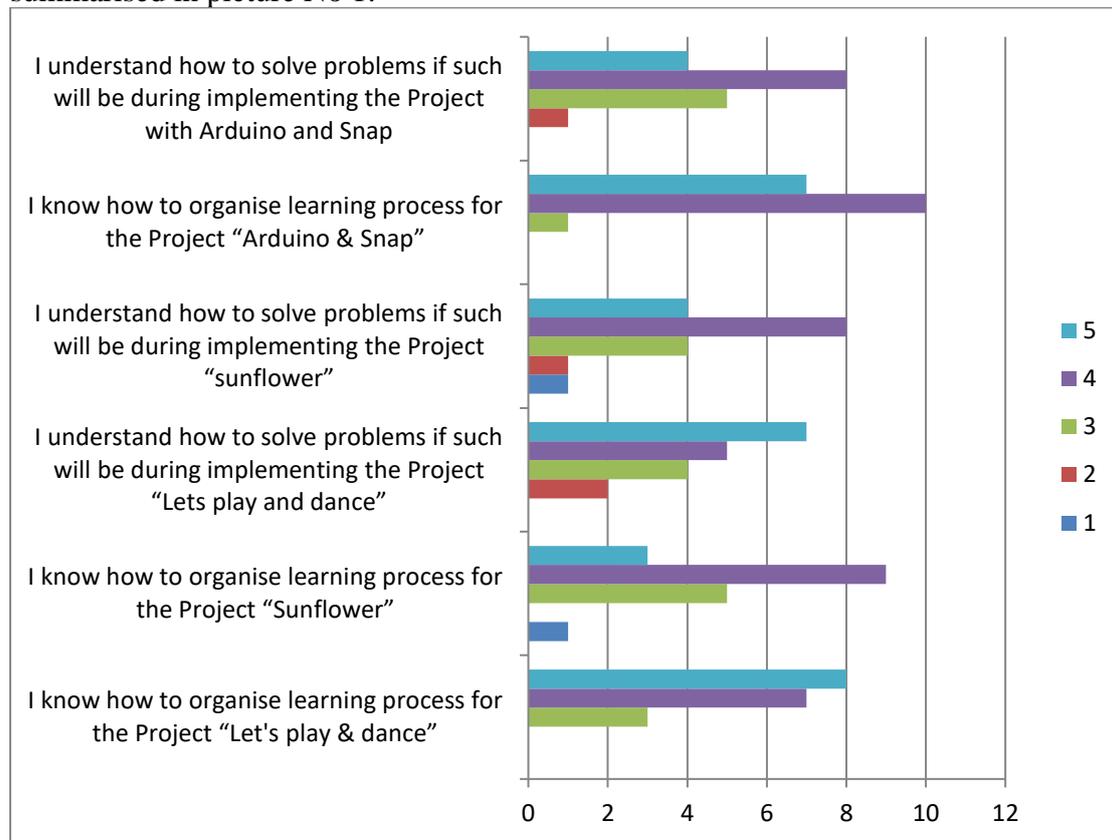
Erasmus+

Thank You!

Evaluation of training course in Riga 14.06.-18.06.2016.

The second training course took place in University of Latvia (Riga) from 14th till 18th of June. After training course, teachers were asked to evaluate the training course (see annex 2).

In the beginning, there were questions about training course activities, where teachers had the possibility to answer them by evaluating statement in Likert scale, where 1– Strongly disagree, 5 – Strongly agree by circling the correct answer. All results are summarised in picture No 1.



Picture 2. Results of second training course evaluation

Then teachers were asked to write 3 things which you enjoyed during the training course and results are summarised in Table no 1, where most popular answers were "possibility for collaboration between people" and it was mentioned 9 times, next popular were answers which indicated that teachers enjoyed the presentations from other colleagues about their experience during Project implementation at schools (8 answers) and 6 teachers mentioned that they enjoyed the environment of training course.

Table No 1

Explanations	2
reflection about experiences from other colleagues	8



environment/location	6
people	2
collaboration between people	9
nice work climate	1
Interesting tasks	3
well organised work	5
the programming language of Arduino/Snap	3
assistance during implementation	1
Robot's parade	1
the laboratory	1
good reception	1
nice teachers	1
software and pedagogical instructions	2
Let us Play and Dance	1
gradual development of tasks	1
training sessions	1
the social life	1

As next step teachers were asked to write down three most challenging things during the training course and results are summarised in Table no 2, and it shows that most challenging for them were activities with Arduino (6 answers)

Table No 2

Problem with English language	2
programming with variables	2
Too little time for Arduino	6
The program of Sunflower	3
New tasks	1
Use of different sensors	2
Increasing difficulty	1
share my experience with other teachers	2
needed a lot more tips/information before starting new curricula	1
too little time	1

In the last part of the questionnaire, teachers were asked to write suggestions for developing and improving the curriculum of teacher training course and results are summarised in Table No 3 and the most popular suggestion was that there should be more time with Arduino (3 answers).

Table No 3

More time to try experience without help	1
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Better to work if there is no language barrier	1
More time to learn curricula	2
Mixed language groups are not good for learning	1
More supportive materials	1
More Arduino	3
Continue with the same enthusiasm	1
More help and advice for teachers	1
Too long learning	1



Annex No 2

Training course in Riga

We invite you to evaluate **training course you have participated. Please respond openly to the following questions. We appreciate your time and feedback!**

Please evaluate following statements in points from 1-5, where 1– Strongly disagree, 5 – Strongly agree by circling the correct answer

1. I know how to organise learning process for the Project “Let's play & dance”

1 2 3 4 5

2. I know how to organise learning process for the Project “Sunflower”

1 2 3 4 5

3. I understand how to solve problems if such will be during implementing the Project “Lets play and dance”

1 2 3 4 5

4. I understand how to solve problems if such will be during implementing the Project “sunflower”

1 2 3 4 5

5. I know how to organise learning process for the Project “Arduino & Snap”

1 2 3 4 5

6. I understand how to solve problems if such will be during implementing the Project with Arduino and Snap

1 2 3 4 5

7. Can you please write 3 things which you enjoyed during the course

8. Can you please write 3 things which you found challenging during the course



9. Do you have any suggestions how could we develop and improve the curriculum of teacher training course?

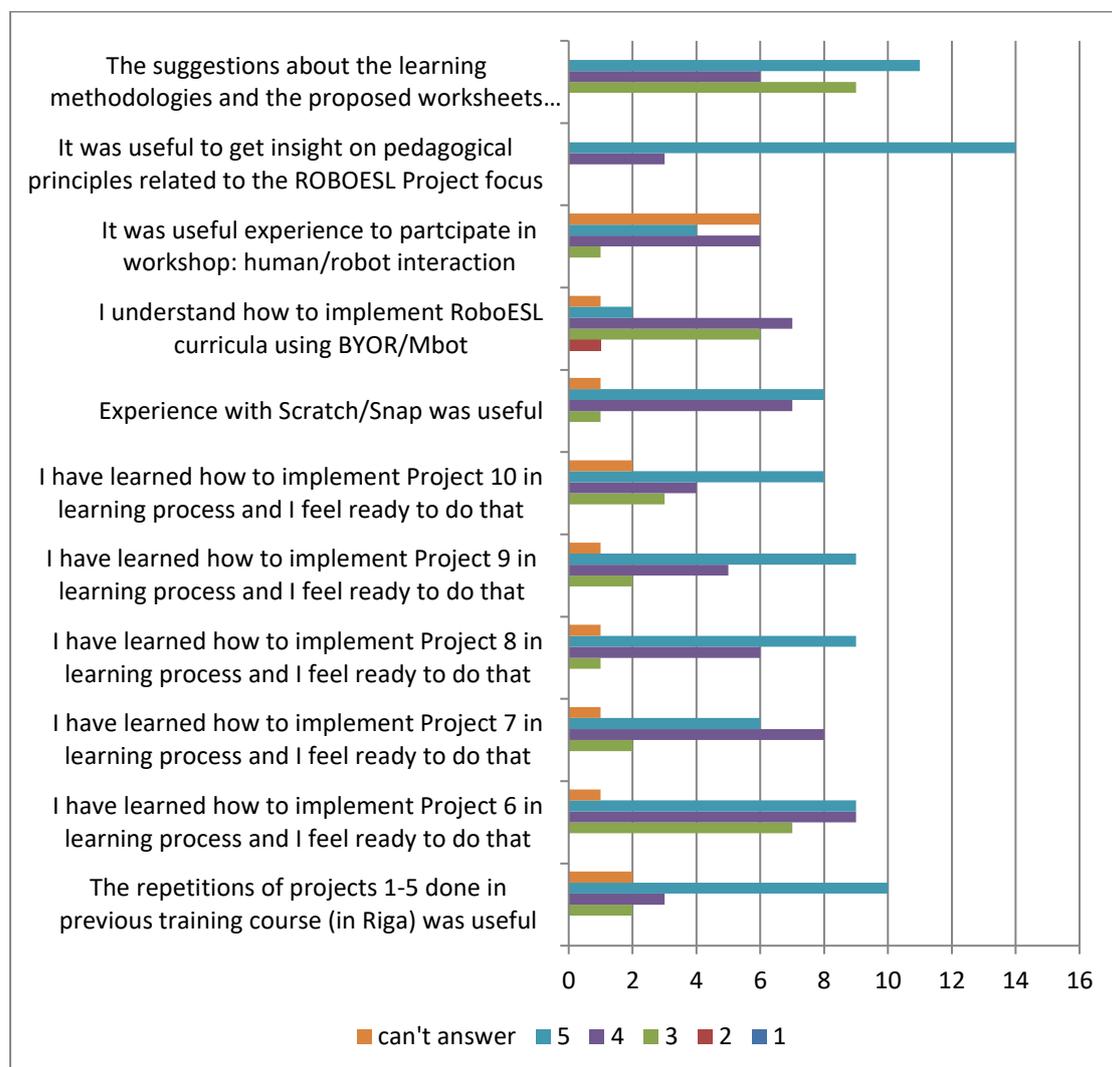
Thank You!

Evaluation of training course in Genoa

18.09.-22.09.2017.

The third training course took place in Liceo Fermi (Genoa) from 18th till 22nd of September. After training course, teachers were asked to evaluate the training course (see annex 3).

In the beginning, there were questions about training course activities, where teachers had the possibility to answer them by evaluating statement in Likert scale, where 1– Strongly disagree, 5 – Strongly agree by circling the correct answer. All results are summarised in picture No 1.



Picture 3. Results of third training course evaluation



Teachers had a possibility freely express their suggestions for development and improvement of the curriculum of training course. There were only few sentences added and they were following: More practical activities (2), Offer translated materials at the beginning or work without translated materials, More activities with different robots not only Lego



Annex No 3

Evaluation of training course

We invite you to evaluate training course you have participated in scale from 1-5, where 1– strongly disagree, 2 – rather disagree, 3 – not sure, 4 – rather agree, 5 – strongly agree by circling the correct answer. Please respond openly to the following questions. We appreciate your time and feedback!

1. The repetitions of projects 1-5 done in previous training course (in Riga) was useful

1 2 3 4 5

2. I have learned how to implement Project 6 in learning process and I feel ready to do that

1 2 3 4 5

3. I have learned how to implement Project 7 in learning process and I feel ready to do that

1 2 3 4 5

4. I have learned how to implement Project 8 in learning process and I feel ready to do that

1 2 3 4 5

5. I have learned how to implement Project 9 in learning process and I feel ready to do that

1 2 3 4 5

6. I have learned how to implement Project 10 in learning process and I feel ready to do that

1 2 3 4 5

7. Experience with Scratch/Snap was useful

1 2 3 4 5

8. I understand how to implement RoboESL curricula using BYOR/Mbot

1 2 3 4

5

9. It was useful experience to participate in workshop: human/robot interaction

1 2 3 4 5



10. It was useful to get insight on pedagogical principles related to the ROBOESL Project focus

1 2 3 4 5

11. The suggestions about the learning methodologies and the proposed worksheets were useful

1 2 3 4 5

12. Do you have any suggestions how could we develop and improve the curriculum of training course?

Thank You!