



LLP Leonardo da Vinci project  
Serious Computer Games as a Teaching Tool  
TOI UK/11/LLP-LdV/TOI 497



LLP Leonardo da Vinci project SCOGATT

TOI UK/11/LLP-LdV/TOI 497

<b>Project Name</b>	<b>SCOGATT – Serious Computer Games as a Teacher Tool</b>
<b>Work Package</b>	<b>Work Package 5</b>
<b>Result Number</b>	<b>Result 11</b>
<b>Title ( Short Description of Result)</b>	<b>Piloting Teacher Training Programme – Pilot Report and Workshops</b>



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## PILOT REPORT

On the findings of the SCOGATT Pilot workshop, national workshops (events) and piloting of SCG (Serious Computer Games) in teaching practices of the partners countries

### EXECUTIVE SUMMARY

The Pilot report presents the results of the Questionnaire's replies, made in three stages:

1) After the first Pilot workshop with teacher-trainers during the third project meeting in Nijmegen,

2) After the cascade events (workshops or other) with teachers from VET training institutions in the partners' countries,

3) After the fourth partner meeting in Istanbul and some additional remarks of all partners, as impression from the cascade events.

The aims of the pilot report are to contribute to the fine tuning of the materials created from WP4 to ensure they are fit for transferable and sustainable purposes, as follows:

- to present the result of teachers' opinions and evaluation of the teacher's training program (WP4) with the purpose to adjust it more closely to the teachers' needs and expectations;
- to provide feedback, necessary for fine tuning of Guidelines on using Serious Computer Games in VET (WP4)
- to present some lessons learned for the benefit of teachers, using the project products.

The major findings from the replies of the teacher-trainers, participated in the Pilot Workshop and national cascade events (workshops) are:

- one third of the participants are ready to try using the SCG in the class on the basis of the knowledge from workshops,
- the participants understood 'very well' what SCG are, what are the advantages,
- overall, participants need more information how to prepare lessons with SCG
- teachers are not fully confident in gaming and using the SCG in the training process, so they need longer training with more examples, exercises and practice in gaming as well as in teaching using SCG,
- participants from some countries (Bulgaria, Turkey) announced there are either no/very few suitable games (in the subjects they teach, or in their national language),
- SCG might be used in the school only by teachers with more imagination,
- teachers who want to use SCG need to invest more of their own competences in ICT and in gaming.

To summarize, the teachers who participated in the events (pilot workshop and national workshops) seem enthusiastic and ready to learn how to use SCG in class, teaching different subjects and find the project products useful (with insignificant notes).

At the same time, in spite of the readiness of students to use SCG in class, the teachers (especially in Bulgaria, Italy, Turkey) noted more obstacles and reservations in the use of SCG in their training practice. They are not 100% ready to use SCG after the Workshops.

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The recommendations based on the feedback from the participants, necessary for the fine tuning of the Teacher Training Programme and Teacher Guidelines as part of the “Teacher Training Toolkit” are:

- The training duration should be longer – with a theoretical and practical part and practice in gaming (probably as informal learning)
- The training program can be suggested to the institution responsible for the organization of teachers’ courses - for teachers in VET, as well as for teachers in general education;
- The teacher training should be perceived as one possible scenario
- The TTP should define some steps (5-8-10) for the teachers who have never played the games, but want to use it in class – tips or recommendation – what is better to be done first, depending on ICT level or experience in gaming;
- It would be good if the training program becomes part of the traditional courses in the partners’ countries and people who finish it successfully receive credits;
- Development of articles for students, colleagues, school headmasters and parents – to persuade them to support teachers who use SCG in the training;
- The TTP should be flexible – the lecturer should be able to use his/her order for the modules – depends on the training duration, ICT level of teachers, facilities (with or without computers), the aims of the training (only to present SCG idea or to train the teachers to prepare their own lessons using SCG);
- The topics in the training program, which are of a great importance are:
  1. Evaluation of the SCG – if it is suitable for the training process (checklist) - theory
  2. Basic Games for Teaching Different Types of Content, logic of the computer games, main terms widely used when we talk about SCG - theory
  3. Obstacles to the Adoption of Games; Overcoming resistance at school
  4. Computer Games and requirements regarding Learning environments – theory
  5. Elements that Make Games Engaging - theory
  6. How to select games for my subject - theory
  7. How to integrate SCG in the lesson - for individual work, with competitive purposes, with research purposes - theory
  8. Demonstration of the SCG which can be used in class (EnerCities or other) – it may be a Competition among the participants in the training - practice;
  9. Development of the lesson plan - practice
  10. Definition of “learning outcomes” acquired by students during SCG in the training - theory
  11. Validation (identification and evaluation) of the competences, acquired by the students during the gaming – theory.



## BACKGROUND INFORMATION

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SCOGATT is a project, funded by the Leonardo da Vinci stream of the Lifelong Learning Programme of the European Commission. The main aim of the project is to encourage the use of SCG (Serious Computer Games) as an innovative teaching tool/ method within VET (Vocational Education and Training) on the basis of the experiences of UK and The Netherlands with the implementation of the original EnerCities Project in their organisations.

The key project objectives are:

1. To enable partners to utilize the exemplar opportunities for VET contained in the EnerCities game by translating it into the partner languages
2. To identify and construct a database of serious computer games available in all partner countries which are suitable for use within the VET systems
3. To use the good practice developed during the implementation of the EnerCities project and other relevant experience within the partnership to provide an online tool-kit to support VET teachers in using serious computer games as a teaching tool.
4. To ensure maximum valorization of the outputs of the project in order to have high impact with VET at a European level

The developed in WP4 Teacher Training Toolkit (Teacher Training Programme & Guidelines on using Serious Computer Games in VET) on the basis of the translated EnerCities game and other SCG from the SCOGATT Compendium (WP3) should contribute to the development of competences among the teachers to use SCG in the training process in VET.

The Toolkit is tested during the workshops (pilot and national) and in the current report areas, where the changes and refinements are needed to fit the toolkit better according to the teachers' needs are presented. The Guidelines although not completed before the workshop sessions, were complimented with articles and presentations for SCG, developed by the Lithuanian partner, and supplemented by each partner.

Two types of Questionnaire are used in order to evaluate the impression of the teachers involved in the different project activities and to collect their suggestions.

The Questionnaire A (Annex 1) was developed for the evaluation of the Teacher Training Programme used during the Nijmegen Pilot workshop meeting. The replies were concluded and sent to partners to have in mind when the national events (workshops or other) were realized and organized.

The Questionnaire B (Annex 2) was developed for the evaluation of the usefulness of all available and presented tools, developed in the project WP (Checklist "What are SCG?", Leaflet information, Presentations with main issues from Guidelines on using Serious Computer Games in VET, academic articles, methodology from the "EnerCities Education and Background Materials", etc.) and the Teacher Training Programme .

During the third project meeting in Nijmegen the partners planned to use Questionnaire C for the evaluation of the experience of the teachers who have participated in the project



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workshops and who have tried to use SCG in their lessons – as it was agreed.

The main objective of the Questionnaire C is to collect suggestions how the project products (“Guidelines on using Serious Computer Games in VET” and Teachers Training Programme) can be improved to match teachers’ needs and expectations.

The Questionnaire C is scheduled to be developed after the completion of Guidelines and the recommendations and findings will be put in the Quality Evaluation Report.

## SUMMARY OF THE WORKSHOPS

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The Pilot workshop is carried out during the Third project meeting in Nijmegen. The participants are representatives of the partners' institutions – teachers at VET training institutions, as well as people from the Project Steering Group. The workshop was held in the auditorium with computers for everybody. The participants had the opportunity of listening to presentations, asking questions and giving their opinions and feedback as well as sharing their personal experience.

The Pilot workshop consists of five parts:

- Serious Computer Games Across the Curriculum - Computer Games and Learning environments, Access, Pedagogy and Assessment; How to look at games, and to prepare yourself as a teacher to use them in class; Obstacles to Adoption of Games; Overcoming resistance in school; How to select games for my subject; Where the game could be useful; Basic Games for Teaching Different Types of Content – presentations and discussions
- EnerCities game case: How to play the game and what the game does; Competition among two groups of participants – Demonstration
- How to use EnerCities in specific subjects: chemistry, English, geography, history etc.; Preparation of an own example lesson with the EnerCities game – presentation and discussion
- Recommendations and tips in using games; Elements that Make Games Engaging – discussion.
- Evaluation of the workshop – Questionnaire A.

The main lecturer and workshop leader was Vilma Butkute. Moderator of EnerCities competition was John Latham. Eric Luijten and John Latham shared the experience from the EnerCities piloting and contributed to the steering of the meeting.

The participants of the pilot workshop shared that the workshop met their expectations regarding content, duration, and balance theory/practice. It was generally concluded that in general they [trainers] need more scenarios which will help them to use SCG in their own lessons, as well as to prepare cascade workshops in their countries.

The results and recommendations are in Annex 3.

The workshop in Nijmegen, The Netherland (Annex 4)

The workshop in Nijmegen took place on the 18th of December with 5 teachers from ROC-Nijmegen college, teaching different subjects - Craftsmanship / building materials, Electronics, Electronics, Constructions and ICT.

Most of the participants were not ready to integrate the SCG in the teaching process. They didn't feel confident in gaming.

The workshop in Porto Tolle, Italy (Annex 5)

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The workshop was provided in Porto Tolle on the 10-th of January 2013. There were 13 participants – teachers in Electronics, Electrical engineering, Law and Economics, Technics, Mechanical engineering, Chemistry, Literature, History, English and Religion.

The teachers replied they needed more time (probably for the lessons' preparation and better computers and software)

The Workshop in Vaxjo, Sweden (Annex 6)

The Swedish had the workshop on the 11th of December at Teknikum in Växjö. Teknikum is an upper secondary school with inter alia VET classes. The participants were 15 teachers, working in various subjects.

The Swedish partner introduced the SCOGATT project with a Power Point presentation taking into account the current conditions and context. The content of the workshop was: what is SCG, how to play EnerCities, how to find and select games, how to integrate them in lessons and how to make a lesson plan; whether SCG should be integrated as teaching tool in the classroom. The participants were informed about the other websites with serious computer games and how and why you should integrate this teaching tool in the classroom.

Results and reflections:

The most of the teachers in Sweden are already familiar with SCG's and the effect of them. Many teachers are also very positive and interested in using them as teaching tools.

Some teachers think it is difficult to find time to include gaming in the classroom: "There are so many other things that need to be done".

Some teachers are a bit unsure of the positive effects of gaming in the classroom, even though they got information about results from research and other areas.

There is a big difference in the questionnaire's replies and the reflections between the teachers who are positive to SCG's and teachers who are a bit reluctant. The negative teachers seem to find difficulties everywhere... and the positive teachers see no limits of what gaming can do for the learning and the motivation of the student.

Obviously the teachers should be convinced in the advantages of using SCG - with more examples of good practices in the integration of SCG in the training process, with presentations of advantages of using SCG in comparison to traditional teaching /learning schools, etc. in the Tool-kit.

Some teachers need more information and better guidelines on how to integrate SCG's in the lessons – so the scenarios will be helpful.

The more insecure teachers need information regarding the different ways of using computer games in lessons – for the introduction of new terms, for the evaluation of students, for self-learning, for homework.

Almost every teacher expresses that they do not have time to integrate SCG's in the teaching process. Another obstacle is the lack of confidence in the field of gaming. Another difficulty is to find suitable games for special subjects. The teachers feel it takes too much time to find games and to learn them so well you can use them in the classroom and to guide students through them.

We also showed the EnerCities game. This game evoked a lot of interest! Unfortunately we did not get any time to play the game – but many teachers showed interest in playing  
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it after our workshop! Some teachers were already familiar with the game and had positive experience from it!

In Växjö, Sweden, some schools already use EnerCities as a teaching tool. It is very famous here and especially very popular among students and teachers. This goes also for VET schools. There was also a program on TV about a school using EnerCities and about the positive effects this game has on students and also about the positive effects of learning along with playing the game!

The workshop in Lancaster, United Kingdom (Annex 7)

The LMC Workshop was run by Antony Cain and Kevin Clark-Patterson in early January 2013 in the college. This was a professional, modular training session that will be repeated on future training days. Of the 8 participants registered, five teachers were present practicing across a variety of vocational areas (Functional Skills, Hairdressing, First Aid, Retail, Marketing, English, Math and ICT)

The main feedback seemed to revolve around the desire to 'create' games as well as find them. A mention was made about the inclusion of 'game making' links as well as games themselves. We have the ability to run more, fine-tuned sessions when the materials have been developed further. Kevin Clark Patterson is also scheduled to give feedback in Turkey, at the following project meeting.

The teachers said they need more "practice" to be ready to use SCG in the lessons. More than a half of the participants are ready to test SCG in their training practice.

The workshop in Rousse, Bulgaria (Annex 8)

The Bulgarian Workshop took place in Rousse on the 18-th January 2013 in the Vocational Gymnasium in Construction, architecture and Geodesy with 8 participants - teachers in different subjects: Mechanics, Economics, AutoCAD drawing, Reinforced Concrete, Road Construction, Building construction, English, ICT, Chemistry, Physics and Biology. In the Workshop were involved 7 students, studying Software development.

The project SCOGATT was presented by A. Katzarova. K. Brozig made a presentation how to use SCG in class with main topics: Figures and facts regarding gaming, Checklist what SCG is; How to overcome barriers in class, The SCG advantages; 5 reasons to be SCG engaging; Experience until now (USA, EU, Bulgaria); How to integrate and use the SCG in class – 10 steps to prepare a lesson with SCG, 2 scenarios on the basis of EnerCities. The demonstration of the EnerCities was conducted by A. Lambov (teacher-trainer) with the active participation of students. The SCOGATT website was presented with the special stress on the compendium.

Teachers and Students evaluated the workshop (the replies of both groups are presented separately).

There was no participant with experience in the usage of SCG in the teaching practice in the past. Some of them told they had heard about that approach for the first time and they have never thought that they would use it. Nevertheless 2/3 of participants declared they are ready to use SCG in class, and the main reasons not to do it are: they don't feel



so confident at gaming; there are not enough suitable games (especially in BG language), or “students will not perceive games in class properly”. The students participating in the event stated they would approve of using the SCG in class, although some of their friends will not take in games in class seriously. They believed the main obstacles are existing regulations and the necessity of the Principal’s permission.

During the workshop the teachers learned what serious computer games are, what are the advantages of SCG in comparison to other training tools and how to prepare their own lessons, lesson using computer games.

The teachers stated the presentation and other submitted information are not sufficient for proper selection of SCG in class, or an adequate choice of games at this stage.

Actually the needs of the participants are much bigger than written in the replies. The teachers asked to have longer training to acquire knowledge and skills necessary for the implementation of SCG as a teaching tool. They perceive the workshop as advertisement of the future depth and comprehensive training. This type of training is not planned during the SCOGATT project, so that means the Teacher Guidelines will be much appreciated.

The Bulgarians define the students’ participation as an “investment in the future developers of the SCG”.

The workshop in Turkey (Annex 9)

Serious computer games workshop took place successfully in Ankara, Turkey on 01.03.2013. The participants were teachers from vocational schools from 9 central districts of Ankara. VET teachers found the workshop satisfactory and asked for further in depth training on using computer games in particular subjects.

The teachers who attended the workshop teach different subjects - Health care, ICT, History, Electric & Electronic, Metal. Half of them are ready to use SCG in class, and they don’t have limitations from the Ministry of Education to access the online games. They think it will be better to have regulations for using SCG in class and games related to important subjects as literacy, history should be developed by the Ministry of Education.

Teachers identify some very important prerequisites, necessary for the integration of SCG in the classwork - each student needs a computer with sufficient hardware; suitable computer games in Turkish for different subjects in VET. The teachers declare they should inform the parents regarding this new teaching approach and earn their support.

As in most countries Turkish teachers needed additional trainings - how to apply the serious computer games in a particular subject, how to integrate the SCG in the curricula, how to adapt the SCG as teaching tool.

The workshop in Lithuania (Annex 10)

The Vilnius Workshop was run in the beginning of March by Vilma Butkute. The participants were seven teachers working in the field of Engineering, Maths, Informatics, and Work Safety.

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## PRESENTATION OF THE RESULTS

### Evaluation of the Pilot Workshop, Nijmegen

1. Please grade the themes included in the Pilot Workshop on a scale starting from 1 (dissatisfactory) to 5 (very good)

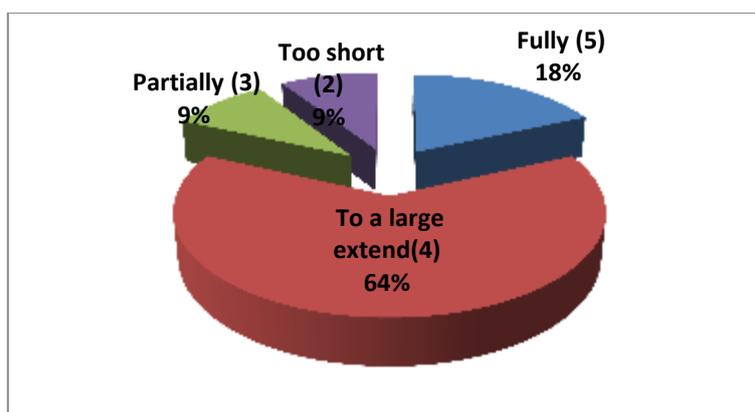
Theme	Needs' adjustment	Presentation	Innovation	Balance between theory and practice
<i>Vilma presentations</i>	4,30	4,45	4,40	4,00
<i>Hands on the game</i>	4,20	4,09	4,00	4,40
<i>Reflection-Eric and John</i>	4,20	4,27	3,78	4,45
<i>Vilma lesson plan</i>	4,00	4,18	4,22	4,18
<i>Evaluation</i>	4,38	4,22	4,67	4,38

The assessment of the Workshop is appr. 4 (good).

It means the goals are reached to the high extent.

2. Do you consider the workshop duration to be suitable?

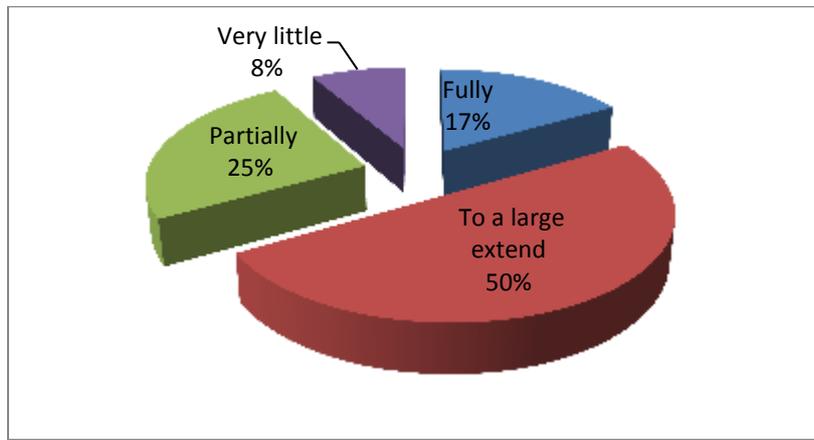
- Fully (5) 2 persons
- To a large extent (4) 7 persons
- Partially (3) 1 person
- Too short (2) 1 person
- A handbook for the trainers is enough, attendance is not obligatory (1) 0 person



Having in mind the workshops goals the duration is suitable – it was workshop only – not training, or information event only.

3. To what extent did it meet your expectations?

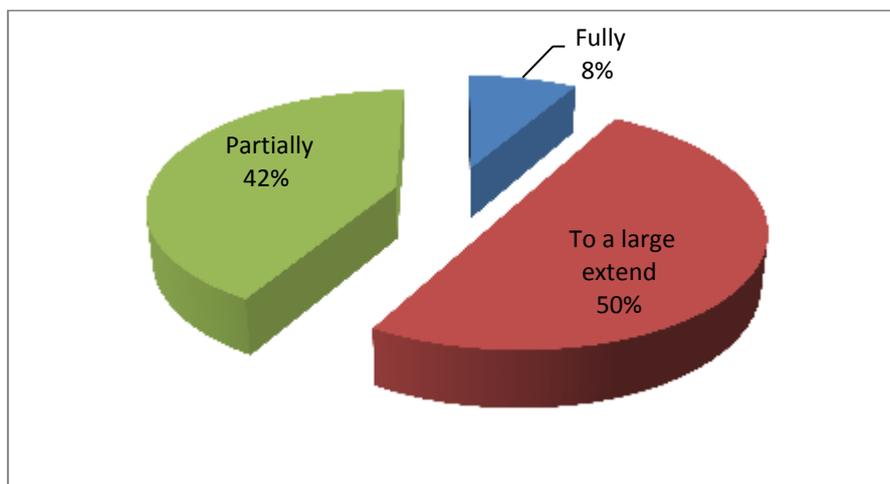
- Fully (5) 2 persons
- To a large extent (4) 6 persons
- Partially (3) 3 persons
- Very little (2) 1 persons
- It did not (1) 0 persons



The participants are satisfied of their participation.

4. Did you find the answers to the questions you had before the workshop?

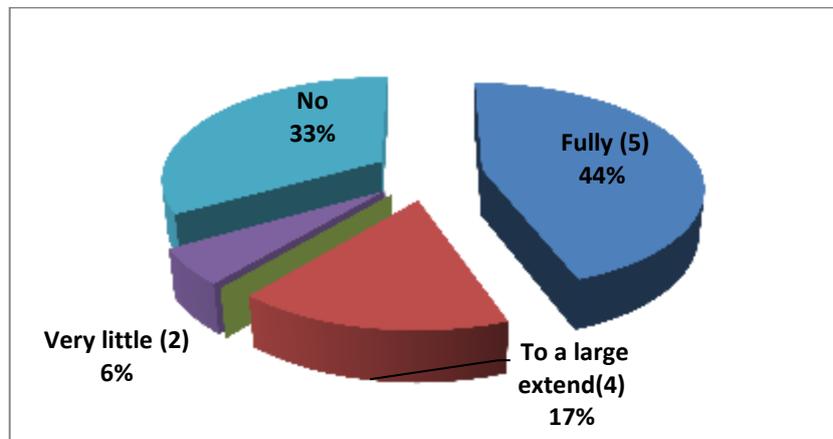
- Fully (5) 1 persons
- To a large extent (4) 6 persons
- Partially (3) 5 persons
- Very little (2) 0 persons
- No 0 persons



The answer of this question correspond to the answers of Question 2 and Question 3 – some of them regard the workshop is too short – so the time is not enough to discuss all questions or all aspects of the SCG topic.

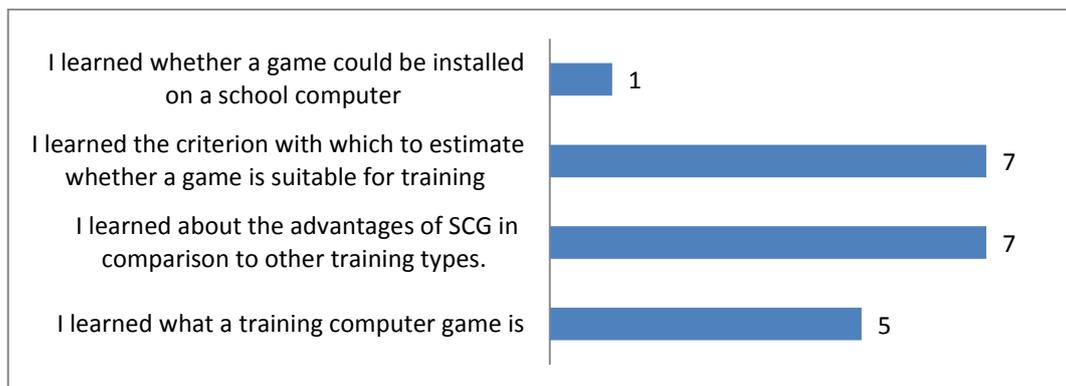
5. Was the setting (premises, equipment) suitable for a Pilot workshop?

- Fully (5) 8 persons
- To a large extent (4) 3 persons
- Partially (3) 0 persons
- Very little (2) 1 persons
- No 6 persons



6. What skills did you gain during the workshop? *Multiple choice is possible*

- I learned what a training computer game is 5 persons
- I learned about the advantages of SCG in comparison to other training types. 7 persons
- I learned the criterion with which to estimate whether a game is suitable for training 7 persons
- I learned whether a game could be installed on a school computer 1 persons



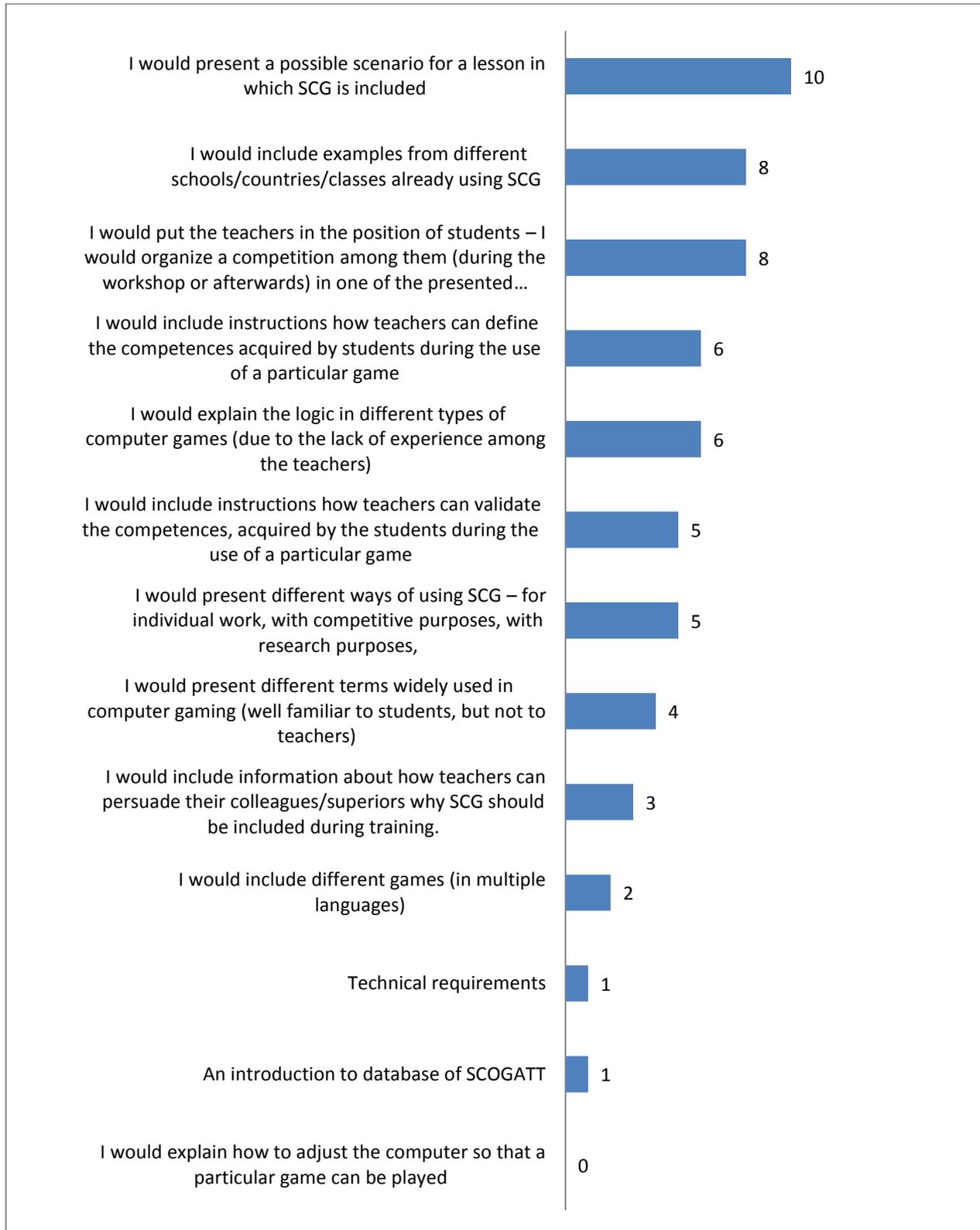


During the workshop the participants have been convinced of the advantages of using the SCG. But the information suggested during the workshop is not enough for more of them to use the SCG in class (see Question 7 answers). They need to have more good practices – scenario, lessons' plans and more practice in gaming.

7. What would you include in the workshop, if you were organizing it?

*Multiple choices are possible*

- |   |            |
|---|------------|
| <input type="checkbox"/> I would include different games (in multiple languages)  | 2 persons  |
| <input type="checkbox"/> I would present a possible scenario for a lesson in which SCG is included  | 10 persons |
| <input type="checkbox"/> I would present different ways of using SCG – for individual work, with competitive purposes, with research purposes   | 5 persons  |
| <input type="checkbox"/> I would explain how to adjust the computer so that a particular game can be played   | 0 persons  |
| <input type="checkbox"/> I would present different terms widely used in computer gaming (well familiar to students, but not to teachers)  | 4 persons  |
| <input type="checkbox"/> I would put the teachers in the position of students – I would organize a competition among them (during the workshop or afterwards) in one of the presented games to understand what skills they lack and what type of training they need | 8 persons  |
| <input type="checkbox"/> I would explain the logic in different types of computer games (due to the lack of experience among the teachers)  | 6 persons  |
| <input type="checkbox"/> I would include examples from different schools/countries/classes already using SCG  | 8 persons  |
| <input type="checkbox"/> I would include information about how teachers can persuade their colleagues/superiors why SCG should be included during training.   | 3 persons  |
| <input type="checkbox"/> I would include instructions how teachers can define the competences acquired by students during the use of a particular game  | 6 persons  |
| <input type="checkbox"/> I would include instructions how teachers can validate the competences, acquired by the students during the use of a particular game   | 5 persons  |
| An introduction to database of SCOGATT  | 1 person   |
| Technical requirements  | 1 person   |





8. Do you need additional information/materials to organize the cascade workshops?

- No 4 persons  
 Yes. 7 persons

*If yes, please give examples:*

- *Lesson plans, examples*
- *How to reach the games without wasting time*
- *How to interact the game into a lesson (example)*
- *Stage in industry for students*

The answers are very important because they can help the partners in the organization of countries' workshops. The content of the workshop could be adjusted to the suggestion above – more examples, scenarios, more ideas how to integrate the SCG in the class.

So that is the reason answers of the Questionnaire B to be sent to the partners before the country workshops.

9. Other comments:

- *Thank you for this helpful and clear workshop*
- *Balance theory/practice*
- *Don't give too many answers, but has questions*

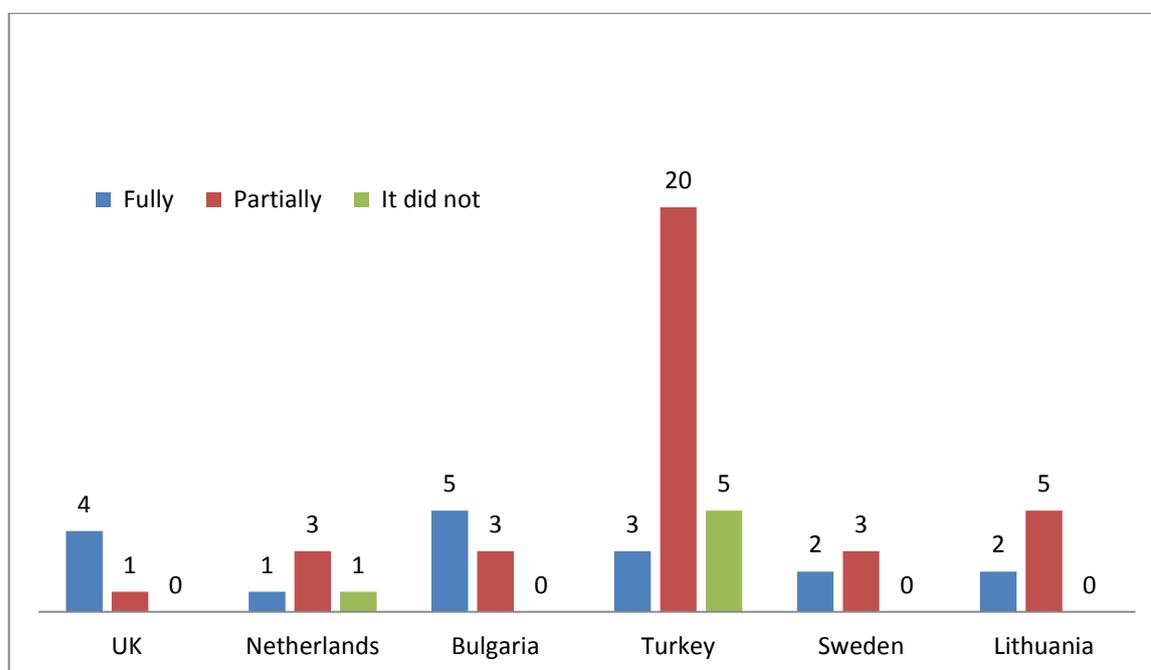
## PRESENTATION OF THE RESULTS

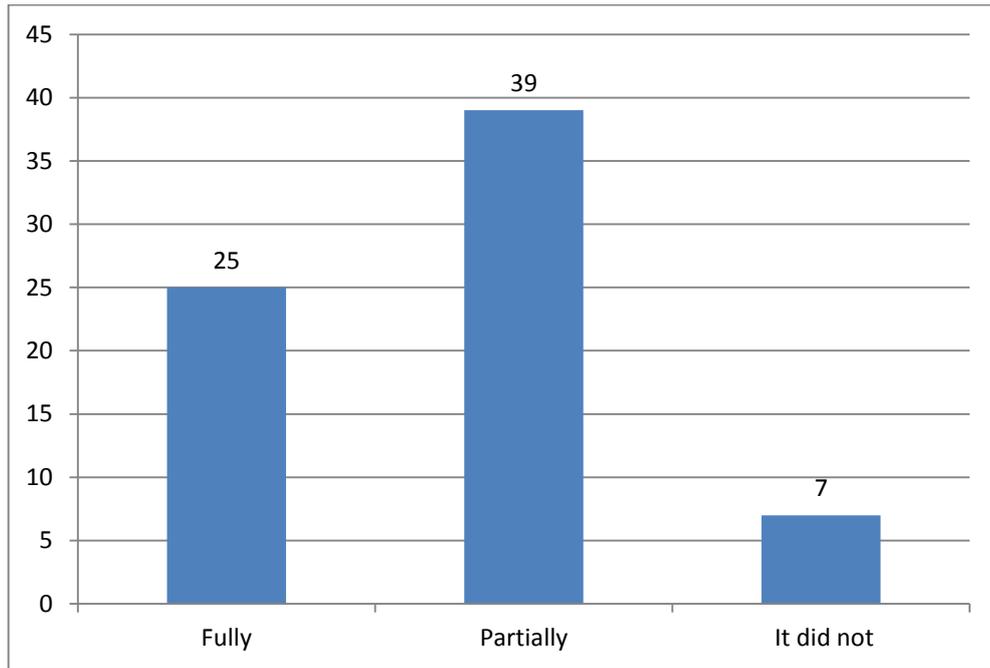
### National Workshops (based on Questionnaire B)

#### QUESTION 1

To what extent did the workshop match your needs and expectations regarding new teaching tools?

Country	Fully	Partially	It did not
UK	4	1	0
Netherlands	1	3	1
Bulgaria	5	3	0
Turkey	3	20	5
Sweden	2	3	0
Lithuania	2	5	0
Italy	8	4	1
TOTAL	25	39	7

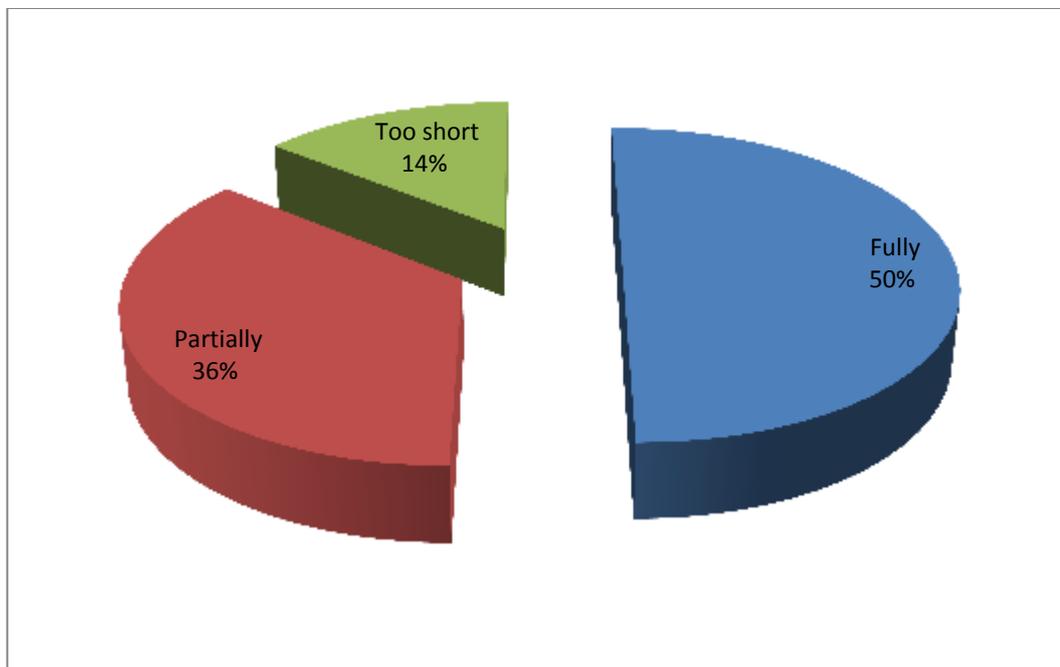
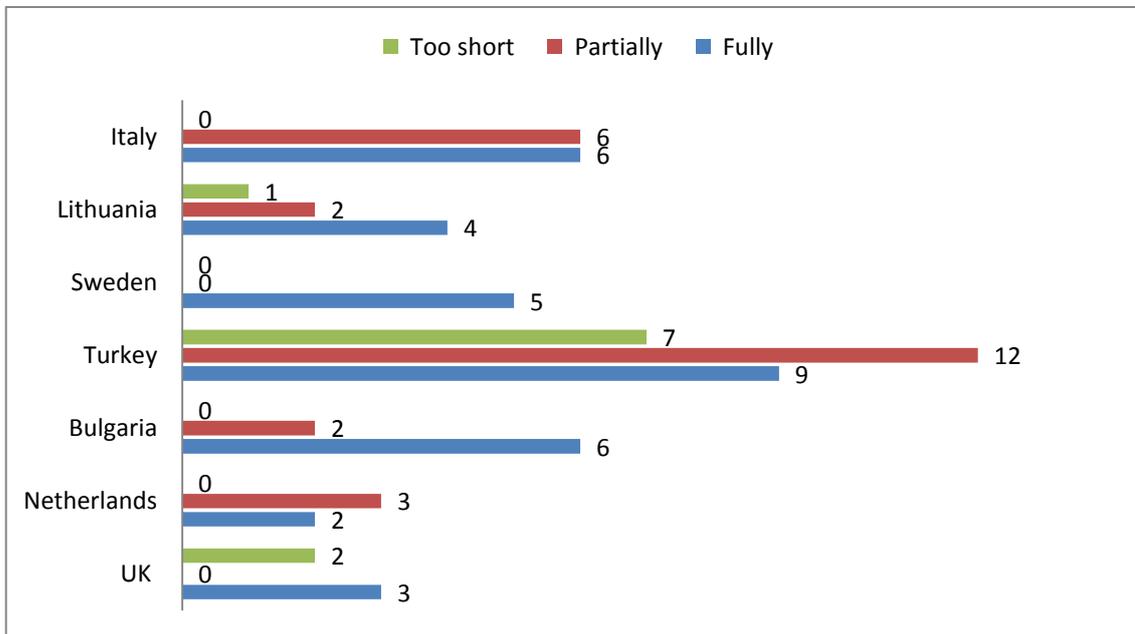




## QUESTION 2

Do you consider the workshop duration to be suitable?

Country	Fully	Partially	Too short
UK	3	0	2
Netherlands	2	3	0
Bulgaria	6	2	0
Turkey	9	12	7
Sweden	5	0	0
Lithuania	4	2	1
Italy	6	6	0
TOTAL	35	25	10

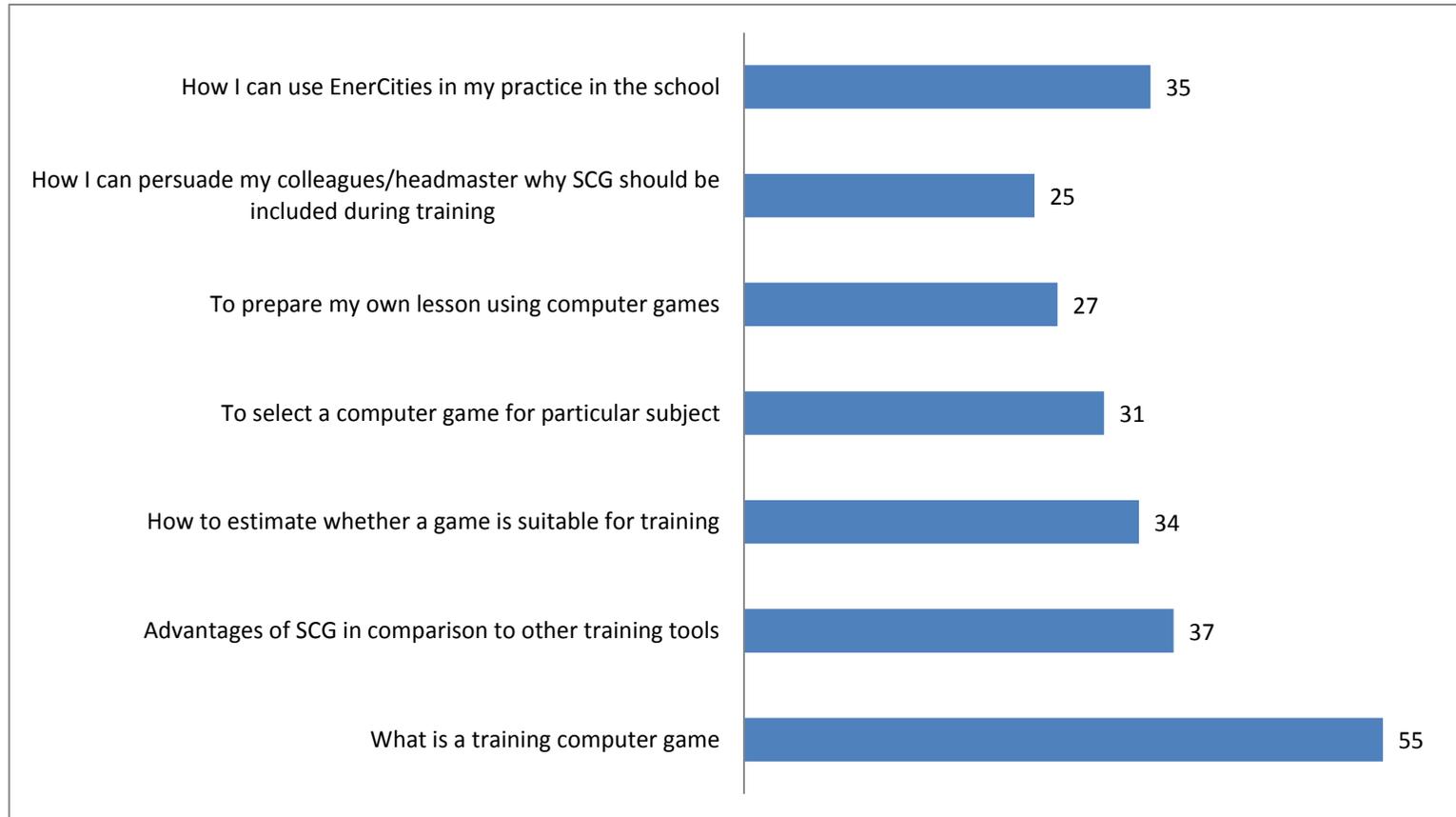




### QUESTION 3

What did you learn during the workshop? *Multiple choice is possible*

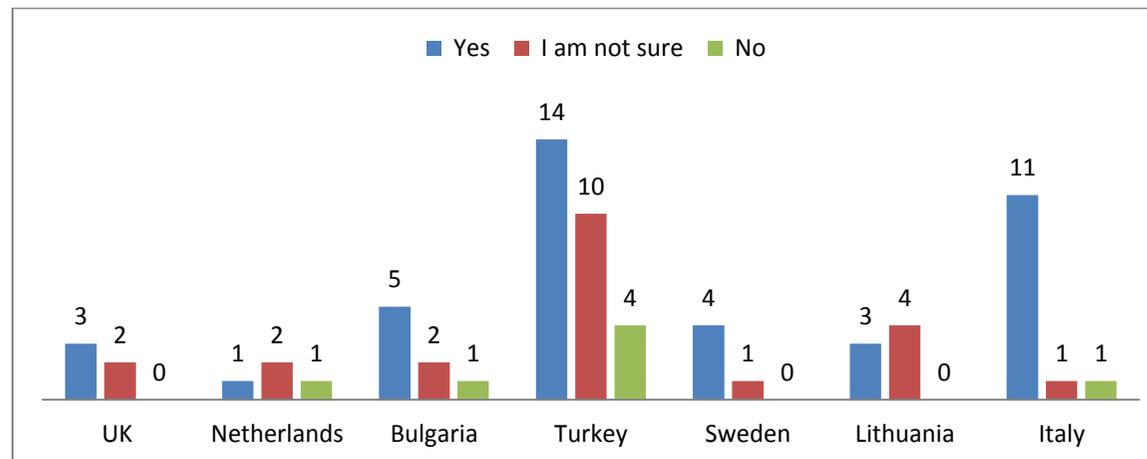
Country	What is a training computer game	Advantages of SCG in comparison to other training tools	How to estimate whether a game is suitable for training	To select a computer game for particular subject	To prepare my own lesson using computer games	How I can persuade my colleagues / headmaster why SCG should be included during training	How I can use EnerCities in my practice in the school
UK	5	4	3	2	1	2	3
Netherlands	2	0	1	0	0	0	1
Bulgaria	5	4	1	1	3	0	1
Turkey	21	17	17	12	7	10	9
Sweden	5	2	1	3	3	2	4
Lithuania	6	0	0	7	2	0	5
Italy	11	10	11	6	11	11	12
TOTAL	55	37	34	31	27	25	35



QUESTION 4

Are you ready to use Computer games in your lessons?

Country	Yes	I am not sure	No
UK	3	2	0
Netherlands	1	2	1
Bulgaria	5	2	1
Turkey	14	10	4
Sweden	4	1	0
Lithuania	3	4	0
Italy	11	1	1
TOTAL	41	22	7

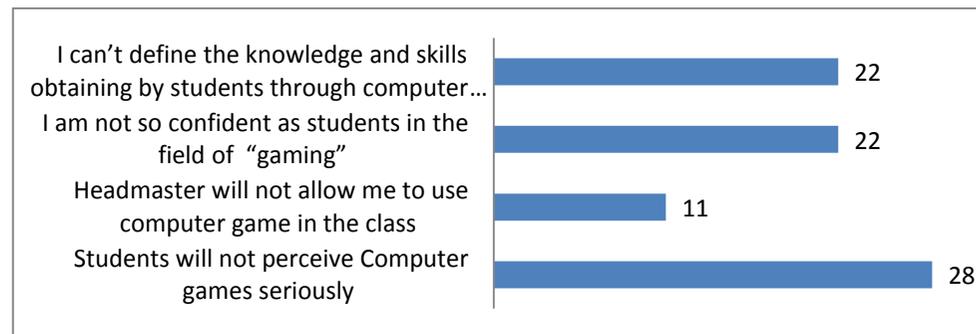




QUESTION 5

What type of obstacles you think you will have to use SCG in the lessons? *Multiple choices are possible*

Country	Students will not perceive Computer games seriously	Headmaster will not allow me to use computer game in the class	I am not so confident as students in the field of "gaming"	I can't define the knowledge and skills obtaining by students through computer game
UK	2	0	3	0
Netherlands	1	0	2	1
Bulgaria	3	0	4	3
Turkey	12	10	4	9
Sweden	2	0	2	2
Lithuania				
Italy	5	0	4	1
TOTAL	28	11	22	22





QUESTION 6 - What do you need additionally to integrate successfully Serious Computer Games in the teaching process?

The answers (without editing) are: Software about topics, suitable competences, sharing of choices, support of administration, upgrade labs, more time, help with lesson planning, technical back up Longer training with exercises and examples, better equipment, suitable computer games, oriented to the learning process, training how to use SCG in the teaching, More computers in Class, Practice, Additional Time, Good computers and suitable software. First of all, there must be no limitation from the ministry to access the online games. Computer is needed for each student in the class. Extra time is needed to cover the curricula. Games are needed to be fit the vocational subjects. In service trainings must be provided on how to apply the serious computer games in a particular subject Students must see themselves as a character such as architect, doctor, police etc. Sufficient hardware is needed. Actual curricula must be changed or adapted to use the SCG as teaching tool. Regulation on using SCG in the curricula must be declared. Support must be needed from the parents. Learning environment must be suitable for the game-based learning pedagogy. Serious computer games on the variety of subjects such as literacy, history etc. must be designed by the ministry of education. Curricula must be updated to use SCG. The prejudice that the Headmasters will not allow the teachers to use SCG in class, is not met, unfortunately. The teachers think they can succeed to present the advantages of gaming as a teaching tool and will overcome the barriers at school. The Educational regulations – even the SCG are not mentioned in it, the teachers view is that there will be no obstacle regarding the integration SCG in class. It must be changed of course, especially the part regarding curricula, but it will not stop people who would like to experiment with SCG in class. The serious problem regarding introduction of SCG as teaching tool can be the lack of suitable games especially in regional languages (Bulgarian, Turkish, Italian, etc.). The most of the games are in English and although this language is widely spoken it is not suitable for some target groups or subjects. Only the people from UK and Sweden didn't mention the lack of the SCG as an obstacle. Another problem (mention only in some countries) is the necessity of better equipment in classrooms – hardware and special devices.



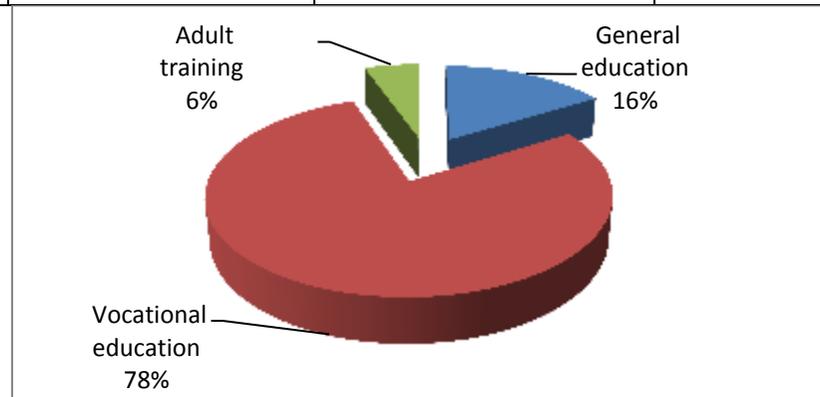
There are some interesting opinions – teachers need help to receive the parents' support (Turkey).

Participants in all workshops (except the UK) declare they need competences to feel confident (see answer of question 5) in the class with SCG. How? The answers are different, but the teachers from Turkey and Bulgaria hardly declare they need specific training (longer than current) and they identified 3 important topics for that training:

- How to plan lessons using SCG
- How to adapt the curricula (in different subjects)
- How to persuade the students to look at the SCG as teaching approach, not as entertainment only.

QUESTION 7 - What field do you work?

Country	General education	Vocational education	Adult training	Other
UK	2	2	4	0
Netherlands	0	5	0	0
Bulgaria	4	4	0	0
Turkey		28	0	0
Sweden	0	5	0	0
Lithuania	0	7	0	0
Italy	6	7	0	0
TOTAL	12	58	4	0



All participants work at the vocational schools or vocational colleges, but some of them teach subjects from vocational education, a lesser part of them teach subjects from general education, as can be seen from the Question 8 answers.



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QUESTION 8 - What subject do you teach? And what educational level?

The participants in Country workshops teach: Economics, AutoCAD drawing, Mechanics, Reinforced concrete, Road Building, ICT, Hairdressing, ICT, First Aid, Retail, Marketing, Craftmanship, building materials, Electronics, Electronics, Constructions, Technics Lab of Electronics- Informatics, Law & Economics, Mechanical Engineering, Heath care, ICT, Electric & Electronic, Metal Electricity –subjects as part of Vocational training in different vocations – building technician, ICT technician, Marketing, Electronics...

Some of the participants teach Literature, History, English, Math, Physics, Chemistry, Biology Religion, Swedish, Social sciences, Functional Skills (English and Math), Computer IT skills, etc.

ANNEXES

Annex 1

Questionnaire A for Evaluation of the Pilot Workshop, Nijmegen, October 2012

Dear colleagues,

This questionnaire is aimed at gathering your opinion about the Pilot workshop in order to adjust the National Cascade workshops and the Teacher training program to a larger extend to the training needs and expectations of the VET teachers, and also to gather information for the Guidelines for VET teachers / VET teacher training toolkit for use of serious computer games (whichever *is the correct one*).

Please, express your opinion in the questionnaire!

10. Please grade the themes included in the Pilot Workshop on a scale starting from 1 (dissatisfactory) to 5 (very good)

Theme	Needs' adjustment	Presentation	Innovation	Balance between theory and practice
Vilma's presentations				
Hands on the game				
Reflection-Eric and John				
Vilma's lesson plan				
Evaluation				

11. Do you consider the workshop duration to be suitable?

- Fully (5)
- To a large extent (4)
- Partially (3)
- Too short (2)
- A handbook for the trainers is enough; attendance is not obligatory (1)

12. To what extend did it match your expectations?

- Fully (5)
- To a large extent (4)
- Partially (3)
- Very little (2)
- It did not (1)

13. Did you find the answers to the questions you had before the workshop?

- Fully (5)
- To a large extent (4)
- Partially (3)
- Very little (2)



No

14. Was the setting (premises, equipment) suitable for a Pilot workshop?

- Fully (5)
- To a large extent (4)
- Partially (3)
- Very little (2)
- No

15. What skills did you gain during the workshop? *Multiple choice is possible*

- I learned what a training computer game is
- I learned about the advantages of SCG in comparison to other training types.
- I learned the criterion with which to estimate whether a game is suitable for training
- I learned whether a game could be installed on a school computer

16. What would you include in the workshop, if you were organizing it?

*Multiple choice is possible*

- I would include different games (in multiple languages)
- I would present a possible scenario for a lesson in which SCG is included
- I would present different ways of using SCG – for individual work, with competitive purposes, with research purposes, other, please add .....
- I would explain how to adjust the computer so that a particular game can be played
- I would present different terms widely used in computer gaming (well familiar to students, but not to teachers)
- I would put the teachers in the position of students – I would organize a competition among them (during the workshop or afterwards) in one of the presented games to understand what skills they lack and what type of training they need
- I would explain the logic in different types of computer games (due to the lack of experience among the teachers)
- I would include examples from different schools/countries/classes already using SCG
- I would include information about how teachers can persuade their colleagues/superiors why SCG should be included during training.
- I would include instructions how teachers can define the competences acquired by students during the use of a particular game
- I would include instructions how teachers can validate the competences, acquired by the students during the use of a particular game
- .....

(Please, add your own ideas)

17. Do you need additional information/materials to organize the cascade workshops?

- No
- Yes.

If yes, please give examples .....

18. Other comments:

.....



Thank you for your time! SCOGATT team

Annex 2

Answers of Questionnaire B for Evaluation  
 of the Workshop (other events), (place), (date)

Dear colleagues,

This questionnaire is aimed at gathering your opinion about the Workshop in order to adjust the Teacher training program to a larger extend to the training needs and expectations of the VET teachers, and also to gather information for the Guidelines for VET teachers.

Please, express your opinion in the questionnaire!

1. To what extend did the workshop match your needs and expectations regarding new teaching tools?  
 Fully                                       Partially                                       It did not
2. Do you consider the workshop duration to be suitable?  
 Fully                                       Partially                                       Too short
3. What did you learn during the workshop? *Multiple choice is possible*  
 What is a training computer game  
 Advantages of SCG in comparison to other training tools  
 How to estimate whether a game is suitable for training  
 To select a computer game for particular subject  
 To prepare my own lesson using computer games  
 How I can persuade my colleagues/headmaster why SCG should be included during training  
 How I can use EnerCities in my practice in the school

.....  
 (Please, add)

4. Are you ready to use Computer games in your lessons?  
 Yes                                       I am not sure                                       No
5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*  
 Students will not perceive Computer games seriously  
 Headmaster will not allow me to use computer game in the class  
 I am not so confident as students in the field of "gaming"  
 I can't define the knowledge and skills obtaining by students through computer game

.....  
 .....(Please add)



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6. What do you need additionally to integrate successfully serious computer games in the teaching process?

.....  
..... (Please, write)

7. What field do you work?

- General education
- Vocational education
- Adult training
- Other

8. What subject do you teach? And what grade level?

..... (Please write)

*Thank you for your time! SCOGATT team*



Annex 3

Answers of Questionnaire A for Evaluation of the Pilot Workshop, Nijmegen, NL  
 11th October 2012

Dear colleagues,

This questionnaire is aimed at gathering your opinion about the Pilot workshop in order to adjust the National Cascade workshops and the Teacher training program to a larger extent to the training needs and expectations of the VET teachers, and also to gather information for the Guidelines for VET teachers / VET teacher training toolkit for use of serious computer games (*whichever is the correct one*).

1. Please grade the themes included in the Pilot Workshop on a scale starting from 1 (dissatisfactory) to 5 (very good)

Theme	Needs' adjustment	Presentation	Innovation	Balance between theory and practice
<i>Vilma's presentations</i>	3544354555	45444355555	4543554554	45433344554
<i>Hands on the game</i>	4543445454	45443345454	4543344454	4543545554
<i>Reflection-Eric and John</i>	3544344555	35444354555	544354455	45444455554
<i>Vilma's lesson plan</i>	3454344454	45524344555	544354454	45543443554
<i>Evaluation</i>	35445455	454245455	545455	45443555

2. Do you consider the workshop duration to be suitable?

2 (people)  Fully (5)

7  To a large extent (4)

1  Partially (3)

1  Too short (2)

0  A handbook for the trainers is enough, attendance is not obligatory (1)

3. To what extend did it match your expectations?

2  Fully (5)

6  To a large extent (4)

3  Partially (3)

1  Very little (2)

0  It did not (1)

4. Did you find the answers to the questions you had before the workshop?

1  Fully (5)

6  To a large extent (4)

5  Partially (3)

0  Very little (2)

0  No



5. Was the setting (premises, equipment) suitable for a Pilot workshop?

- 8  Fully (5)
- 3  To a large extent (4)
- 0  Partially (3)
- 1  Very little (2)
- 0  No

6. What skills did you gain during the workshop? *Multiple choice is possible*

- 5  I learned what a training computer game is
- 7  I learned about the advantages of SCG in comparison to other training types.
- 7  I learned the criterion with which to estimate whether a game is suitable for training
- 1  I learned whether a game could be installed on a school computer

7. What would you include in the workshop, if you were organizing it?

*Multiple choice is possible*

- 2  I would include different games (in multiple languages)
- 10  I would present a possible scenario for a lesson in which SCG is included
- 5  I would present different ways of using SCG – for individual work, with competitive purposes, with research purposes, other, please add.....
- 0  I would explain how to adjust the computer so that a particular game can be played
- 4  I would present different terms widely used in computer gaming (well familiar to students, but not to teachers)
- 8  I would put the teachers in the position of students – I would organize a competition among them (during the workshop or afterwards) in one of the presented games to understand what skills they lack and what type of training they need
- 6  I would explain the logic in different types of computer games (due to the lack of experience among the teachers)
- 8  I would include examples from different schools/countries/classes already using SCG
- 3  I would include information about how teachers can persuade their colleagues/superiors why SCG should be included during training.
- 6  I would include instructions how teachers can define the competences acquired by students during the use of a particular game
- 5  I would include instructions how teachers can validate the competences, acquired by the students during the use of a particular game
- .....

*An introduction to database of SCOGATT*

*Technical requirements*

8. Do you need additional information/materials to organize the cascade workshops?

- 4  No
- 7  Yes.

*If yes, please give examples .....*

*Lesson plans, examples*

*How to reach the games without wasting time*

*How to interact the game into a lesson (example)*

*Stage in industry for students*

9. Other comments:

*Thank you for this helpful and clear workshop*

*Balance theory/practice*

*Don't give too much answers, but has questions*

WP5 - Pilot Report and Workshops



Annex 4

Answers of the Questionnaire for Evaluation  
 of the Workshop Serious Games In Class, Nijmegen, NL 18 Dec.'12

*Please write the number of participants in the workshops who have given relevant answers!*

1. To what extend did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	1	3	1

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	2	3	

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	2
Advantages of SCG in comparison to other training tools	
How to estimate whether a game is suitable for training	1
To select a computer game for particular subject	
To prepare my own lesson using computer games	
How I can persuade my colleagues/headmaster why SCG should be included during training	
How I can use EnerCities in my practice in the school	1
<i>I do not see opportunity to use SCG in my curriculum</i>	1
<i>The game doesn't suit my students, a game that does I'll certainly use.</i>	1
<i>There are only a few games available, you'll have to search a lot</i>	1
<i>No answer</i>	1

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	1	2	1



5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	1
Headmaster will not allow me to use computer game in the class	
I am not so confident as students in the field of "gaming"	2
I can't define the knowledge and skills obtaining by students through computer game	1
<i>It is impossible for my subject (craftsmanship Hardware)</i>	1
<i>When only the right games were available, they will fit purpose</i>	1
<i>The game must be suitable for the curriculum</i>	1

6. What do you need additionally to integrate successfully serious computer games in the teaching process?

Time

Good computers and suitable software

7. What field do you work?

Answer	General education	Vocational education	Adult training	Other
Number of participants		5		

8. What subject do you teach? And what grade level?

Craftsmanship / building materials	Level 4
Electronics	Level 4
Electronics	Level 4
Constructions	Level 4
ICT	Level 4

Annex 5

Answers of the Questionnaire for Evaluation  
 of the Workshop Porto Tole, IT

*Please write the number of participants in the workshops who have given relevant answers!*

1. To what extent did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	8	4	1

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	6	6	

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	11
Advantages of SCG in comparison to other training tools	10
How to estimate whether a game is suitable for training	11
To select a computer game for particular subject	6
To prepare my own lesson using computer games	11
How I can persuade my colleagues/headmaster why SCG should be included during training	11
How I can use EnerCities in my practice in the school	12

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	10+1	1	1

5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	5
Headmaster will not allow me to use computer game in the class	0
I am not so confident as students in the field of "gaming"	4
I can't define the knowledge and skills obtaining by students through computer game	1



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6. What do you need additionally to integrate successfully serious computer games in the teaching process?

...software about topics, suitable competences, condivision of choices, support of administration, upgrade labs

7. What field do you work?

Answer	General education	Vocational education	Adult training	Other
Number of participants	6	7	0	0

8. What subject do you teach? And what grade level?

Literature, History, Lab of Electronics- Informatics, Law & Economics, English, Math, Technics, Chemistry, Electronics, Mech Engineering, Religion.. ; all teachers work at secondary school (14-19 years old students)

Annex 6

Answers of the Questionnaire for Evaluation  
 of the Workshop in Vaxjo, SE 11.12.2012

1. To what extend did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	2	3	

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	5		

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	5
Advantages of SCG in comparison to other training tools	2
How to estimate whether a game is suitable for training	1
To select a computer game for particular subject	3
To prepare my own lesson using computer games	3
How I can persuade my colleagues/headmaster why SCG should be included during training	2
How I can use EnerCities in my practice in the school	4

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	4	1	

5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	2
Headmaster will not allow me to use computer game in the class	
I am not so confident as students in the field of "gaming"	2
I can't define the knowledge and skills obtaining by students through computer game	2



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6. What do you need additionally to integrate successfully Serious computer games in the teaching process?

More time, help with lesson planning, technical back up

7. What field do you work?

Answer	General education	Vocational education	Adult training	Other
Number of participants		5		

8. What subject do you teach? And what grade level?

Upper secondary school; Swedish, English, Electricity, Social sciences and one student assistant

Annex 7

Answers of the Questionnaire for Evaluation  
 of the SCOGATT Workshop Lancaster, UK on 2<sup>nd</sup> Jan 2013

*Please write the number of participants in the workshops who have given relevant answers!*

1. To what extent did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	4	1	

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	3		2

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	5
Advantages of SCG in comparison to other training tools	4
How to estimate whether a game is suitable for training	3
To select a computer game for particular subject	2
To prepare my own lesson using computer games	1
How I can persuade my colleagues/headmaster why SCG should be included during training	2
How I can use EnerCities in my practice in the school	3
Subject Specific Games	

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	3	2	

5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	2
Headmaster will not allow me to use computer game in the class	
I am not so confident as students in the field of "gaming"	3
I can't define the knowledge and skills obtaining by students through computer game	



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Computer Room and IT Equipment!	1
Time	2

6. What do you need additionally to integrate successfully serious computer games in the teaching process?

More computers in Class, Practice, Nothing Specific

7. What field do you work?

Answer	General education	Vocational education	Adult training	Other
Number of participants	2	2	4	

8. What subject do you teach? And what grade level?

Functional Skills (English and Maths, ICT Level 2) Hairdressing L2-3, ICT L1, 2-3, First Aid, Retail L2, Marketing L2

Annex 8

Answers of the Questionnaire for Evaluation  
 of the Workshop, Rouse on 18.01.2013

*Please write the number of participants in the workshops who have given relevant answers!*

1. To what extent did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	5	3	0

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	6	2	0

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	5
Advantages of SCG in comparison to other training tools	4
How to estimate whether a game is suitable for training	1
To select a computer game for particular subject	1
To prepare my own lesson using computer games	3
How I can persuade my colleagues/headmaster why SCG should be included during training	0
How I can use EnerCities in my practice in the school	1

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	5	2	1

5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	3
Headmaster will not allow me to use computer game in the class	0
I am not so confident as students in the field of "gaming"	4
I can't define the knowledge and skills obtaining by students through computer game	3
<i>There aren't computer games suitable for my subject</i>	1



6. What do you need additionally to integrate successfully serious computer games in the teaching process?

*Longer training with exercises and examples, better equipment, suitable computer games, oriented to the learning process, training how to use SCG in the teaching,*

7. What field do you work?

Answer	General education	Vocational educ.	Adult training	Other
Number of participants	4	4		

8. What subject do you teach? And what grade level?

*Economics grade 10,12, AutoCAD drawing -11 grade, English 9-11 grade, Biology and Chemistry 8-10 grade, Mechanics 11 grade, Reinforced concrete 12 grade, Road Building -12 grade, Chemistry and Physics-8-10 grade, ICT 9-12 grade*

Annex 9

Answers of the Questionnaire for Evaluation  
 of the Workshop, Ankara, TR on 01.03.2013

*Please write the number of participants in the workshops who have given relevant answers!*

1. To what extent did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	3	20	5

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	9	12	7

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	21
Advantages of SCG in comparison to other training tools	17
How to estimate whether a game is suitable for training	17
To select a computer game for particular subject	12
To prepare my own lesson using computer games	7
How I can persuade my colleagues/headmaster why SCG should be included during training	10
How I can use EnerCities in my practice in the school	9

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	14	10	4

5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	12
Headmaster will not allow me to use computer game in the class	10
I am not so confident as students in the field of "gaming"	4



I can't define the knowledge and skills obtaining by students through computer game	9

6. What do you need additionally to integrate successfully serious computer games in the teaching process?

First of all, there must be no limitation from the ministry to access the online games. Computer is needed for each student in the class. Extra time is needed to cover the curricula. Games are needed to be fit the vocational subjects. In service trainings must be provided on how to apply the serious computer games in a particular subject Students must see themselves as a character such as architect, doctor, police etc. Sufficient hardware is needed. Actual curricula must be changed or adapted to use the SCG as teaching tool. Regulation on using SCG in the curricula must be declared. Support must be needed from the parents. Learning environment must be suitable for the game-based learning pedagogy. Serious computer games on the variety of subjects such as literacy, history etc. must be designed by the Ministry of Education. Curricula must be updated to use SCG

7. What field do you work?

Answer	General education	Vocational education	Adult training	Other
Number of participants	0	28	0	0

8. What subject do you teach? And what grade level?  
 HeathCare, ICT, History, Electric & Electronic, Metalwork.

Annex 10

Answers of the Questionnaire for Evaluation  
 of the SCOGATT Workshop, Vilnius, LT on 4<sup>th</sup> March 2013

*Please write the number of participants in the workshops who have given relevant answers!*

1. To what extent did the workshop match your needs and expectations regarding new teaching tools?

Answer	Fully	Partially	It did not
Number of participants	2	5	

2. Do you consider the workshop duration to be suitable?

Answer	Fully	Partially	Too short
Number of participants	4	2	1

3. What did you learn during the workshop? *Multiple choice is possible*

Answers	Number of participants
What is a training computer game	6
Advantages of SCG in comparison to other training tools	
How to estimate whether a game is suitable for training	
To select a computer game for particular subject	7
To prepare my own lesson using computer games	2
How I can persuade my colleagues/headmaster why SCG should be included during training	
How I can use EnerCities in my practice in the school	5

4. Are you ready to use Computer games in your lessons?

Answer	Yes	I am not sure	No
Number of participants	3	4	

5. What type of obstacles you think you will have to use SCG in the lessons? *Multiple choice is possible*

Answers	Number of participants
Students will not perceive Computer games seriously	3
Headmaster will not allow me to use computer game in the class	1
I am not so confident as students in the field of "gaming"	3
I can't define the knowledge and skills obtaining by students through computer game	6



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--	--

6. What do you need additionally to integrate successfully serious computer games in the teaching process?

More lessons examples, "ready to use" material"

7. What field do you work?

Answer	General education	Vocational education	Adult training	Other
Number of participants		7		

8. What subject do you teach? And what grade level?

Engineering (Maths, L1, L2), Informatics (L1-3), Work Safety (L2, L3)