



COMENIUS 2.1. Project No.128989-CP-1-2006-1-RO

**“VccSSe – VIRTUAL COMMUNITY COLLABORATING SPACE
FOR SCIENCE EDUCATION”**

<http://www.vccsse.ssai.valahia.ro>

**Meeting with European Science teachers
(using sharing and videoconference tools)**

11 March 2009 16.30 C.E.T.

**Report & Evaluation of the Meeting with European
Science teachers
(using sharing and videoconference tools)
- Synthesis -**

The Meeting with European Science teachers (using sharing and videoconference tools) represented an important dissemination activity, which was held on the 11th of March 2009. A number of 100 participants participated to this meeting where each project partner had an intervention for presenting aspects related with the *VccSSe Project*: basic information concerning the development of the Project, relevant virtual experiments for the Sciences area (prepared by the teachers who attended the *Virtual Instrumentation in Science Education Training Modules*) and the main concepts included in the *Guidelines for Best Practices in Educational Use of Virtual Instrumentation*.

This Report comes to offer an image related to the organizational aspects of the Meeting and also an evaluation of the web conference. It was prepared by Mr. Gabriel GORGHIU & Mrs. Ana-Maria SUDUC (from Valahia University Targoviste, Romania) based on the preliminary Reports and Feedbacks (the last ones expressed in the Moodle platform Forum: “*Meeting with European Science teachers - using sharing and videoconference tools*”) given by each project partner institution.



A. Agenda

During the Trans-national Coordinating Meeting held in Valladolid (Spain), in December 2008, the Project partnership discussed and agreed on the videoconference program which was designed as follows:

- 16:15 – 16:30 Establishing the connection (*University of Joensuu, FI*). Accessing the Videoconference Room by the participants (*VccSSe project partner institutions & invited guests*). Starting the Recording procedures. (*University of Joensuu, FI*)
- 16:30** – 16:35 Welcome salute (*University of Joensuu, FI*)
Introduction (*VccSSe project coordinator – Valahia University Targoviste, RO*)
- 16:35 – 16:40 VccSSe project presentation (*VccSSe project coordinator – Valahia University Targoviste, RO*)
- 16:40 – 16:44 On-line simulating laboratory: GeoGebra Workshop - *Escher Tessellations with GeoGebra* (*Teacher Training Centre of Gijon, ES*)
- 16:44 – 16:48 Virtual Experiment: *Crocodile Physics Application - Getting a Sharp Image in Three Steps* (*Teacher Training Centre of Zaragoza 1, ES*)
- 16:48 – 16:52 On-line simulating laboratory: *Cabri Geometry Workshop - Virtual Labs within Dynamic Geometry Systems: An Example for the Learning of the Concept of Symmetry* (*University of Patras, GR*)
- 16:52 – 16:56 Virtual Experiment: *Circuit Construction Kit Application - Reusable Objects* (*University of Joensuu, FI*)
- 16:56 – 17:00 Virtual Experiment: *Crocodile Chemistry Application - Titration* (*Teacher Training and Educational Innovation Centre Valladolid, ES*)
- 17:00 – 17:04 Virtual Experiment: *Cabri Geometry Application - Equilateral Triangle: A Remarkable Relation* (*Valahia University Targoviste, RO*)
- 17:04 – 17:08 Virtual Experiment: *GeoGebra Application - Where to Set a Bonfire? - The Circumscribed Circle of a Triangle* (*Regional In-Service Teacher Training Centre "WOM" in Bielsko-Biala, PL*)
- 17:08 – 17:12 Remote simulating laboratory: *LabView Workshop - Electrical Resonance in Parallel and Series (RLC) Tuned Circuits* (*Warsaw University of Technology, PL*)
- 17:12 – 17:20 *Guideline of Best Practices* presentation (*Babes Bolyai University Cluj Napoca, RO*)
- 17:20 – 17:28 Discussions and comments (Moderator: *University of Joensuu, FI*)



17:28 – 17:30 Final salute (*VccSSe project coordinator – Valahia University Targoviste, RO*)

The Agenda was published on the VccSSe Project webpage and invitations to possible interested Science teachers were sent, together with a *Poster* (special designed for this event, prepared by Mr. Javier TAMARGO (Gijon) - figure 1) and some *Golden Rules* (see the *Annex 1*).

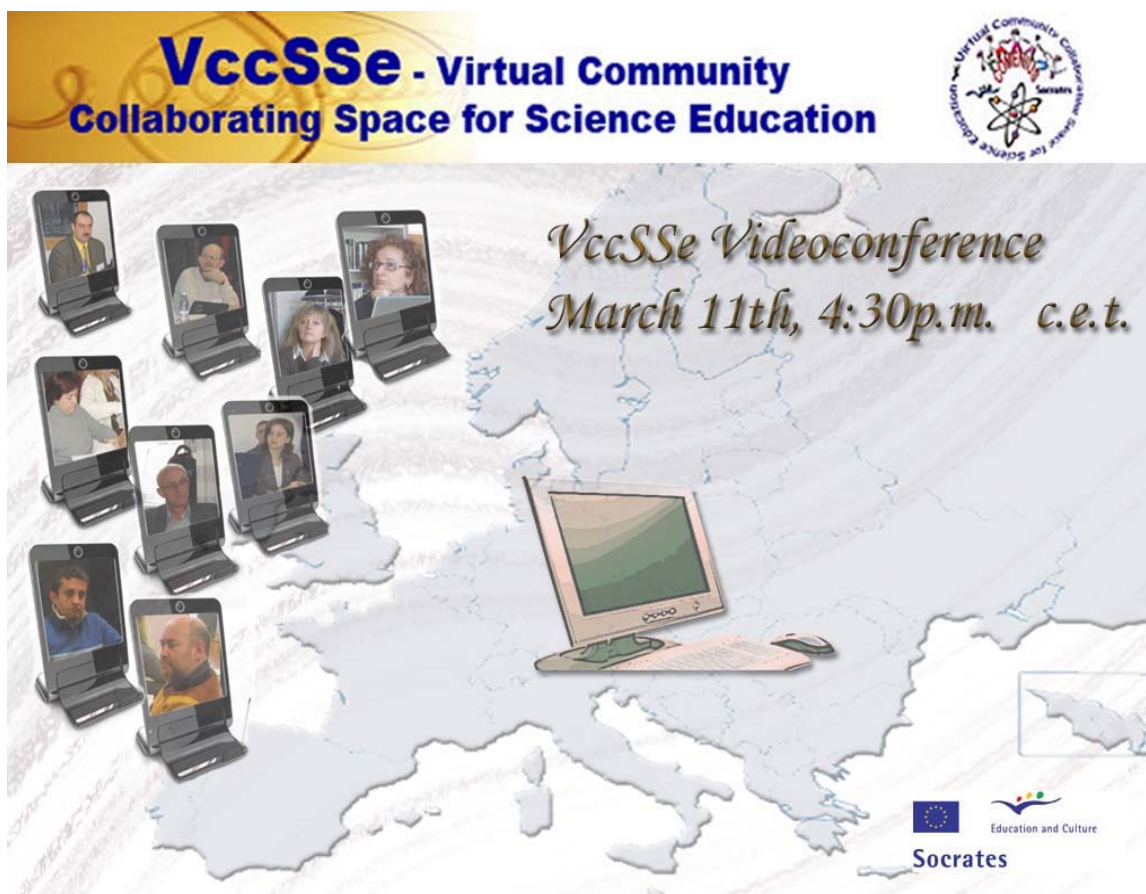


Fig. 1 The VccSSe Videoconference Poster

A special *Form* (questionnaire) - *Evaluation of the Meeting with European Science teachers - using sharing and videoconference tools (Form)* - was prepared by the *VccSSe Evaluation Team* (Project staff from: Cluj Napoca - Romania, Bielsko-Biala - Poland and Patras - Greece) for assessing the Meeting. The *Form* was uploaded in the VccSSe webpage, section: *Outcomes - Assessment Tools*.



B. Software

The software selected by the Project partnership for carry out the On-line Meeting was *Adobe Acrobat Connect Pro*. The main reason for its selection was the fact that the University of Joensuu had access to Adobe Acrobat Connect Pro videoconference management program and gathered an important experience in its using (<http://www.adobe.com/products/acrobatconnectpro/>).

The chosen solution had also several advantages (information collected from: <http://www.adobe.com/products/acrobatconnectpro/webconferencing/benefits.html>):

- increase productivity and reduce costs with enterprise-wide collaboration;
- maintain security and compliance;
- customize and extend the user interface;
- optimize scalability, performance, and usage;
- extend audio capabilities within your online meetings.

A screenshot of the *Adobe Acrobat Connect Pro* software interface (taken during the on-line meeting) is presented in figure 2.

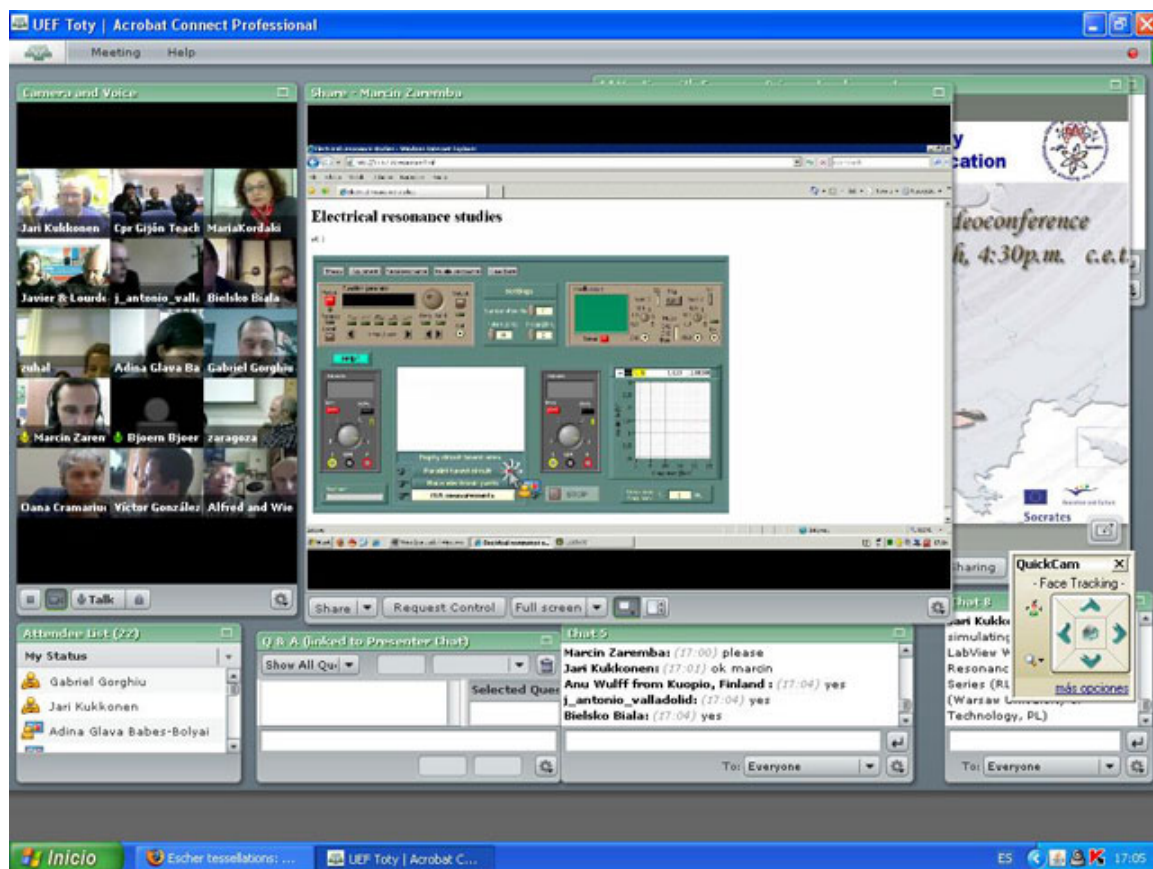


Fig. 2 A screenshot of the *Adobe Acrobat Connect Pro* software interface (captured during the videoconference)



C. Participants

The list of participants includes 100 persons (project team members, tutors, teachers, European Science teachers, educational decision makers). The distribution of the invited participants (as this was registered per project partner country and institution) is presented in Table 1.

Table 1. The videoconference participants

Partner Country	Partner City	Invited Participants / Partner City	Invited Participants / Partner Country	Total
Romania	Targoviste	24	35	100
	Cluj-Napoca	11		
Spain	Valladolid	13	27	
	Gijon	9		
	Zaragoza	5		
Poland	Warsaw	3	16	
	Bielsko-Biala	13		
Finland	Joensuu	12	12	
Greece	Patras	10	10	

The invited persons are coming from 15 European countries: Romania, Spain, Poland, Finland, Greece, Portugal, UK, Ireland, Belgium, Germany, Austria, Norway, Slovakia, Bulgaria and Turkey. The list of invited participants is presented in *Annex 2*.

Generally, the participants were grouped in several on-line meeting points, the main ones (9) being organized at the VccSSe partner institutions (see the column "Partner City", in Table 1). Other meeting points (opened by the invited external guests) were opened in: Porto (Portugal), Collingham - Wetherby (UK), Dublin (Ireland), Geel (Belgium), Berlin (Germany), Vienna (Austria), Dokka (Norway), Trencin (Slovakia), Sofia (Bulgaria) and Istanbul (Turkey). Unfortunately, not all of them have been kept open during the web conference or have been actively involved in the meeting. However, it must be said that some invited external guests had no experience in using a web conferencing system.



D. Evaluation

Despite the fact that the web conferencing was carefully planned in details (in this sense, the project partners started to use the software after the Transnational coordinating Meeting in Valladolid - December 2008, in order to prepare the dissemination event and to avoid problems that might occur), some problems appeared during the on-line meeting held on the 11th of March 2009. Generally speaking, the partners expected to have several problems due to the fact that numerous factors can appear, mostly when the number of connections is numerous. It is known that audio and video quality is depending on microphones and cameras quality, furniture arrangements, speakers' position related to the microphone and camera, lightning. In this sense, the videoconference presented sometimes an *unsatisfying audio connection*. This problem was generated by human misuse: at one connection the participants kept the microphone *on* and the background noise affected some presentations. At the connection point that generated the sound problems there was any person who used before the collaboration system or read instruction about using it. Once the individuals from this connection point started the microphone (probably by mistake or trying to discover the platform) they were not aware that they are generating the sound problems.

Even other participants tried to communicate with them by alternative communications ways (*chat*), they did not observed the messages addressed to them. Therefore, *Adobe Acrobat Connect Pro* software was doing the job of indicating the source problem (the connection points with the microphone *on* were indicated by a green microphone symbol), the participants failed to find a way to communicate, to call attention to the individuals that were generating the problems. Another possible inconvenient aspect was that not always was clear who is speaking, due to an incorrect position in relation to video camera. Also it was not to easy seeing facial expressions and nonverbal gesture of the people in the foreground and impossible of those in the background. In addition, at the feedback discussions time, only the persons who were sitting in front of the computer participated, the others acting more passive listeners than active participants.

Another observation was that the video clips, records of presentations, had the best quality of the sound and image. Previously created video records of the presentations eliminate the emotions specific to live presentations.

In the following paragraphs, some results collected from the videoconference participants' evaluation questionnaire are presented:



a. Technical Criteria

The technical criteria of the videoconference were appreciated by the participants at a high rate (mainly: *excellent* and *very good*), excepting the sound quality criteria. Those criteria were:

- (1) the level of the difficulty in preparing the equipment - 85% of participants appreciated as *excellent* and *very good*;
- (2) the level of difficulty in operating the software - 86% of participants appreciated as *excellent* and *very good*;
- (3) the time needed to connect the participants - 82% of participants appreciated as *excellent* and *very good*;
- (4) the vision quality - 90% of participants appreciated as *excellent* and *very good*;
- (5) the sound quality - 62% of participants appreciated as *excellent* and *very good*;
- (6) the connection stability - 82% of participants appreciated as *excellent* and *very good*.

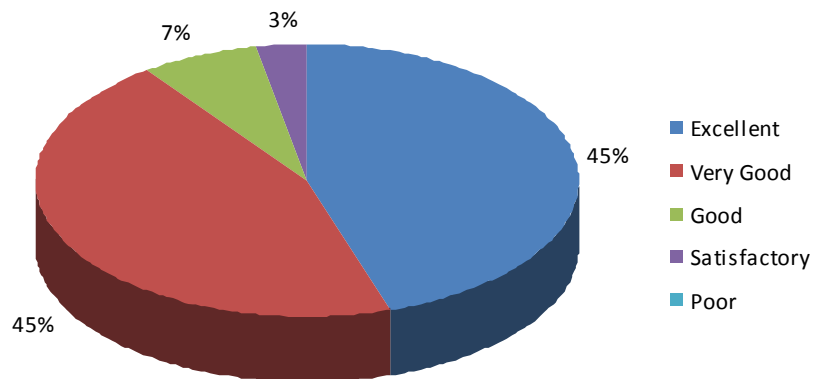


Fig. 3 Evaluation of the *vision quality* expressed by the web conferencing participants

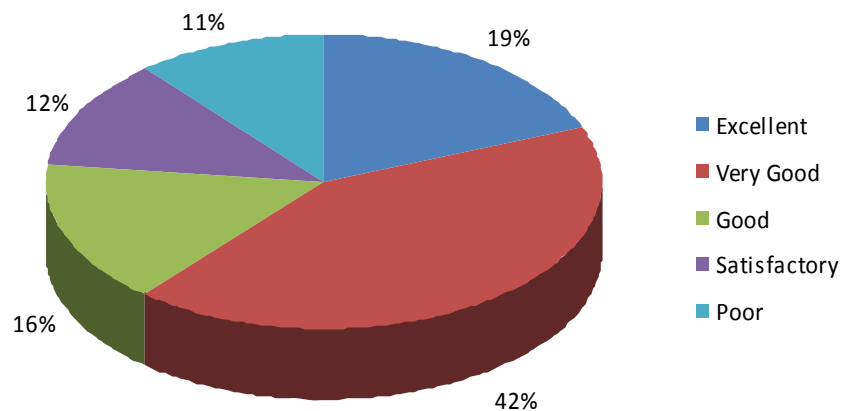


Fig. 4 Evaluation of the *sound quality* expressed by the web conferencing participants



For exemplification, figures 3 and 4 illustrate the videoconference participants' feedback from the vision and sound quality aspects.

b. Organizational Criteria

The organizational criteria of the videoconference were also appreciated by the participants at a very high rate (mainly: *excellent* and *very good*). Those criteria were:

- (1) the agenda and duration of the videoconference - 85% of participants appreciated as *excellent* and *very good*;
- (2) the coordinating skills - 88% of participants appreciated as *excellent* and *very good*;
- (3) the coherence of the partners' performance content with the agenda/aims - 86% of participants appreciated as *excellent* and *very good*;
- (4) the effectiveness of the time usage in the participants group - 79% of participants appreciated as *excellent* and *very good*;
- (5) the clarity of the videoconference goals before the realization - 87% of participants appreciated as *excellent* and *very good*;
- (6) the extent to which the conference guests' expectations were met - 85% of participants appreciated as *excellent* and *very good*;
- (7) the extent to which the project partners' expectations were met - 88% of participants appreciated as *excellent* and *very good*.

The appreciation of the last two criteria is graphical illustrated in figures 5 and 6.

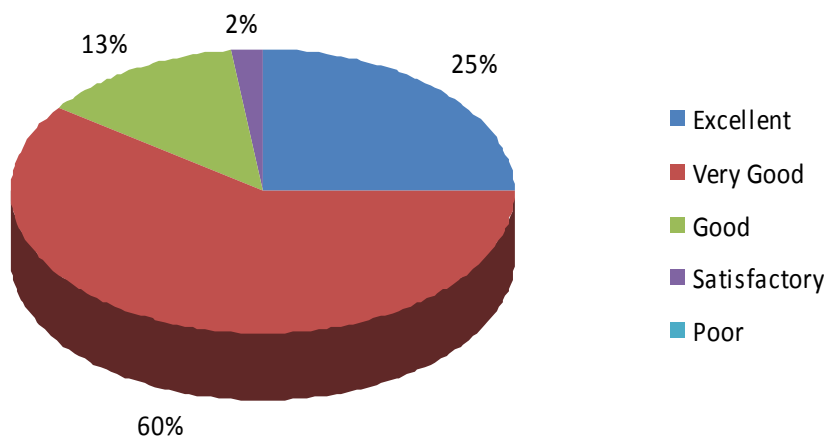


Fig. 5 Evaluation of the *extent to which the conference guests' expectations were met* expressed by the web conferencing participants

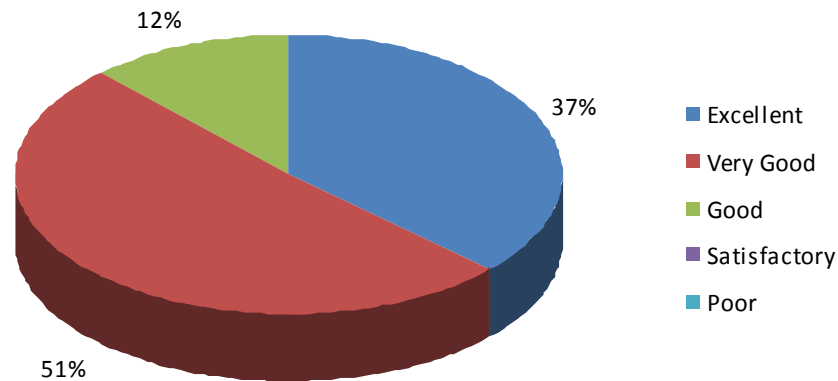


Fig. 6 Evaluation of the *extent to which the project partners' expectations were met* expressed by the web conferencing participants

c. Videoconference Content

The videoconference content was appreciated mainly as *excellent* and *very good*). The criteria used for this evaluation were:

(1) the density of information regarding the delivery of the course activities, products, impact in the classroom and teachers' feedback - an average of 85% of the participants appreciated as *excellent* and *very good*;

(2) the diversity of the products presented with regard to the age of the pupils / students, the school subject and the kind of software - an average of 89% of the participants appreciated as *excellent* and *very good*.

d. Communication and Feedback Criteria

The communicative performance of the conference participants and the quality of the feedback (offered by the participants regarding the use of the virtual instrumentation in education) received also *excellent* and *very good* appreciation. Both results of those two criteria are graphical illustrated in figures 7 and 8.

e. Videoconference versus Traditional Conference

According to this criterion results, the participants really enjoyed the web conferencing experience. To the question: "*What did you/didn't like using the technology?*", the participants gave answers which show that, in general, they are aware of the videoconference benefits against the traditional one: "*using the technology every participant saves a lot of time*", "*the videoconference could be a very good option for a meeting around Europe which can cut a lot of costs involved in a real conference*", "*very easy to use and high effects*" etc. An image of the appreciation of the criterion *Videoconference versus Traditional Conference*, expressed by the VccSSe project partnership, is presented in figure 9.

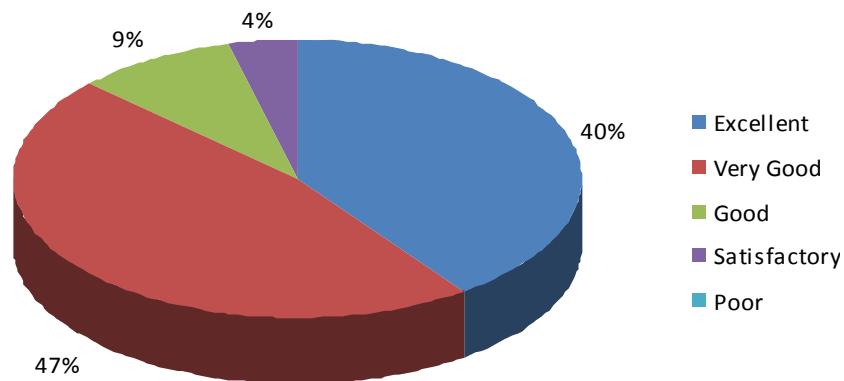


Fig. 7 Evaluation of the *communicative performance of the conference participants* expressed by the web conferencing participants

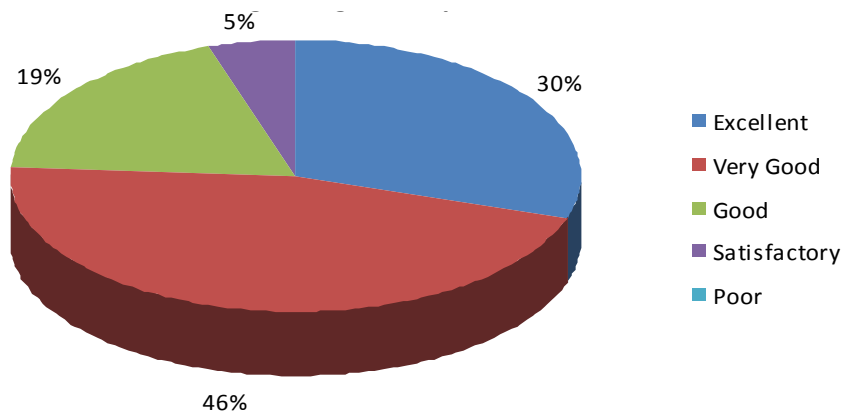


Fig. 8 Evaluation of the *quality of the feedback (offered by the participants regarding the use of the virtual instrumentation in education)* expressed by the web conferencing participants

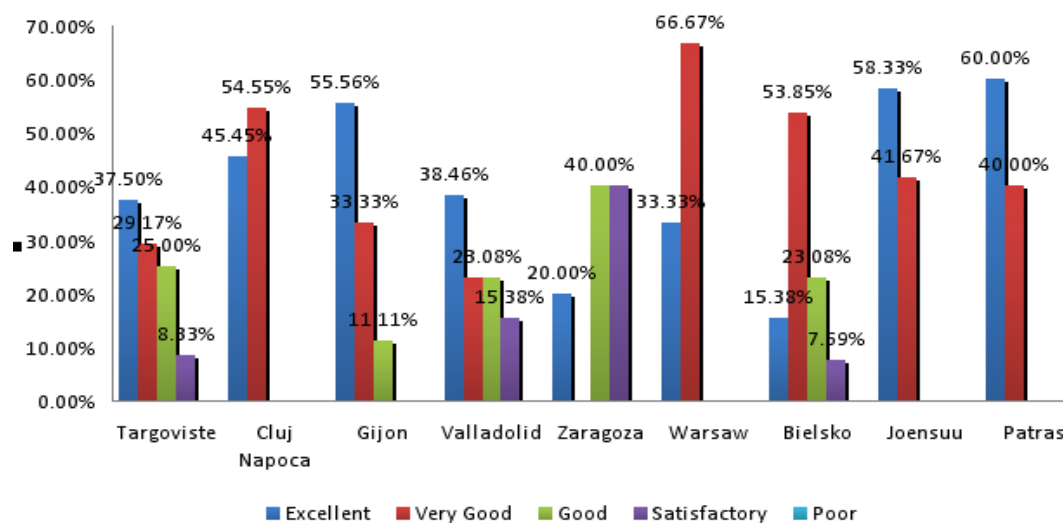


Fig. 9 Appreciation of the criterion *Videoconference versus Traditional Conference*, expressed by the VccSSe project partnership



E. Conclusion

Conclusion concerning the results and evaluation of the Meeting with European Science teachers (using sharing and videoconference tools) were pointed out during the Trans-national coordinating Meeting held in Zaragoza (Spain) in March 2009.

a. It was highly appreciated that 100 persons (most of them teachers from different European countries, together with the project partners' staff) participated to this *dissemination event*.

b. As a result of the testing sessions - done before the real on-line meeting -, the system (based on Adobe Acrobat Connect Pro software and managed by the University of Joensuu) was proved to be a very suitable one for such conference.

c. Even small technical inconvenient (mostly related to the sound quality) were faced, the videoconference was a real success. This fact was strongly sustained by the discussion session that took place after the presentations and also by the interventions made in the special *Forum* dedicated to the web conference: "*Meeting with European Science teachers - using sharing and videoconference tools*", which contains two sections: "*Quality of the videoconference*" and "*Content of the videoconference presentations*", opened in the VccSSe Moodle platform space, and accessible at the URL: <http://moodle.ssai.valahia.ro/mod/forum/view.php?id=644>. A snapshot of the *Forum* welcome interface is illustrated in figure 10.

d. Due to the efficiency proved by the system during the web conferencing, the VccSSe project partnership agreed to use this system for common meetings, generally on Tuesdays, at 1 p.m. c.e.t.

Finally, it was concluded that despite few inconvenient, the web conferencing dissemination experience was enjoyable for most of the participants, and the dissemination activity meeting fully accomplished its objectives.

Discussion	Started by	Replies	Last post
Quality of the videoconference	Gabriel Gorghiu	15	Pilar Dazan Thu, 26 Mar 2009, 10:33 AM
Content of the videoconference presentations	Gabriel Gorghiu	13	Pilar Dazan Tue, 24 Mar 2009, 02:15 PM

Fig. 10 The *Forum* welcome interface included in the VccSSe Moodle platform space



F. Additional Information

The Meeting with European Science teachers - using sharing and videoconference tools, held on the 11th of March 2009, is presented in the VccSSe webpage (<http://www.vccsse.ssai.valahia.ro>), as following:

- Information in the *Home* page, in the Section: *Latest News* - this offer also links to the *Agenda* of this on-line meeting and the related *Poster*;
- A special section (*Meeting with European Science teachers - using sharing and videoconference tools*) presented in the *Dissemination* webpage - it contains the *Agenda* of the on-line meeting, the *Poster* and a movie containing the *Best Moments* (34 minutes video-clip - the interface is illustrated in figure 11). That information is presented also in the *Project DVD Edition* (published in June 2009 and reflecting the VccSSe project results recorded till the 15th of May 2009). The video-clip can be also accessed at:
http://www.vccsse.ssai.valahia.ro/main/dissemination?mv=Videoconference_clip.flv;
- A special section dedicated to the *Pictures* captured during the *Meeting with European Science teachers - using sharing and videoconference tools*, presented in the *Pictures* webpage - it contains 21 pictures taken from several web conferencing locations.
- The *Form* designed for the evaluation of the Meeting with European Science teachers - using sharing and videoconference tools is uploaded in the VccSSe webpage, section: *Outcomes - Assessment Tools*, in the category: *Assessment tools for evaluating different aspects / activities of the Project*.
- This *Report & Evaluation of the Meeting with European Science teachers (using sharing and videoconference tools)* is uploaded in the VccSSe webpage, section: *Outcomes - Assessment Tools*, in the category: *Assessment Reports*.



Fig. 11 The *Videoconference Best Moments* video-clip interface (the clip is a *flv* file)



Annex 1

COMENIUS 2.1. Project No.128989-CP-1-2006-1-RO

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**Meeting with European Science teachers
(using sharing and videoconference tools)**

11 March 2009 16.30 C.E.T.

Managed by University of Joensuu (Finland)
through *Adobe Acrobat Connect Pro* videoconference application

<http://video.uku.fi/toty>

VIDEOCONFERENCE GOLDEN RULES

1. Every partner has to **use the Talk button** just when speaking! Start speaking only after about two seconds from the moment you pushed the button **Talk**. Do not use the option **Hands free** along the conference, as it causes the troubles in overall sound atmosphere. Let the voice to wait two seconds after pushing the **Talk** button! Please make the sound adjustments before the videoconference using the **Settings** option (right click on **Pod options** button);

Remember that all the movements you make on the conference screen are seen by all the partners (maximizing of a window, movements of the mouse). Please, use these possibilities only when necessary.

2. Don't forget that the **videoconference is recorded** from the beginning to its end! – there will be many participants on the conference (many Windows opened on the screen)! Just one person has to talk at a time!

3. Remember that all the Exhibition experiments are uploaded in the Project website (<http://www.vccsse.ssai.valahia.ro/main/exhibition?lang=en>). At a moment, just one presentation has to be uploaded and presented! It is also possible to upload your experiments from your local PC - in this way we can avoid the traffic jam...



PARTICIPATION

- a. All participations have to **go through the moderator** (Joensuu) - see point d.
- b. Don't talk until you are **recognized by the moderator** (Joensuu)
- c. Word / clue to give way to partners: **place of institution** (Targoviste, Valladolid, Gijon, Zaragoza, Warsaw, Bielsko-Biala, Joensuu, Cluj Napoca, Patras)
- d. Word / clue to finish turn / participation: **"Back to you, Joensuu"**
- e. **Follow the established programme** – in an extraordinary case, if you want to participate out of the programme, write your request in the *chat window*.

FOR THE REAL VIDEOCONFERENCE (March, the 11th, 2009), please invite the members of your VccSSe team, in-service teachers and (where possible) one local / regional education expert (decision maker). Please also, do not forget to contact and invite the external partner, sending also the Videoconference Poster designed by Javier Tamargo (Gijon).

PARTICIPANTS

The list of participants will comprise around 100 persons and, in principle, has the following component:

- 1 Project coordinator;
- 9 Local coordinators;
- 9 tutors - one per institution (at least);
- 18 invited colleagues - even they are members of the VccSSe project team or not;
- 27 teachers (who attended the Training Modules);
- 9 contact persons from invited institutions - preferable from outside of the countries involved in the Project;
- 27 Science teachers from outside of the countries involved in the Project - they will be in the same hall with the previous contact persons;
- other individuals (if case and if possible) - they can be also from local educational decision makers.



OBSERVATIONS

- ** All the presentations must be made in English;
- ** Translations are needed / possible just in case of questions / comments / answers during the Discussion stage (the local coordinator will assure this matter, but be reasonable here, there is no much time for that!);
- ** Discussions / questions / comments / answers will be also performed inside the Videoconference Forum – this will be opened in the Project website on the Videoconference day.



Annex 2

COMENIUS 2.1. Project No.128989-CP-1-2006-1-RO

“VccSSe – VIRTUAL COMMUNITY COLLABORATING SPACE FOR SCIENCE EDUCATION”

<http://www.vccsse.ssai.valahia.ro>

**Meeting with European Science teachers
(using sharing and videoconference tools)**

11 March 2009 16.30 C.E.T.

Managed by University of Joensuu (Finland)
through *Adobe Acrobat Connect Pro* videoconference application

<http://video.uku.fi/toty>

INVITED PARTICIPANTS

*1. Invited Video-conference participants from **Targoviste (Romania)** (11-3-09):*

1. Gabriel Gorghiu, Project coordinator
2. Laura Monica Gorghiu, Local coordinator, Dean of Faculty of Science and Arts, Valahia University Targoviste
3. Mihai Bîzoi, Technical advisor & Local tutor
4. Ana-Maria Suduc, Local tutor
5. Crinela Dumitrescu, Local tutor
6. Radu Lucian Olteanu, Local tutor
7. Iulian Brezeanu, Vice-Dean, Electrical Engineering Faculty, Valahia University Targoviste
8. Tinca Alexandrescu, Chemistry Teacher, participating in VccSSe
9. Liliana Borcea, Chemistry Teacher, participating in VccSSe
10. Ana Țapu, Chemistry Teacher, participating in VccSSe
11. Alexandra Marinescu, Chemistry Teacher, participating in VccSSe
12. Nicolae Păuna, Mathematics Teacher, participating in VccSSe
13. Cristina Calistică, Physics Teacher, participating in VccSSe
14. Ionel Goglea, Financial Advisor, VccSSe Project

Invited external guests:

- Eila Lindfors, Senior lecturer, Faculty of Education, Unit of Teacher Education in Hämeenlinna, University of Tampere, Finland
- Reni Dimova, Intercultural Cooperation Foundation, Sofia, Bulgaria



- Zuhai Yılmaz Doğan, English teacher, Cagaloglu Anadolu Kiz Meslek Lisesi, Doga Schools EU Projects Coordinator, Istanbul, Turkey
- Pelin Gerceker, English teacher, Doga Schools EU Projects Coordinator, Istanbul, Turkey
- Didem Sunbul, Physics teacher, Sabanci Anadolu Lisesi, Turkey
- Sinem Ofluogu, Science Teacher, Doga Schools, Turkey
- Carmen Christoffers, Chemistry Teacher, Berlin, Germany
- Petra Reiter, FFG Austrian Research Promotion Agency, European and International Programmes, Vienna, Austria
- Khawar Iqbal, Yorkshire and Humber Development Consortium Ltd, Collingham, Wetherby, UK
- Jef Verhaegen, Computer expert, C.V.O. Hoger Instituut der Kempen, Geel, Belgium

*2. Invited Video-conference participants from **Valladolid** (Spain) (11-3-09):*

Science Teachers:

1. Carlos Gómez Gutiérrez, Colegio de Lourdes. Valladolid. Technology
2. Angel Román Martín, IES “Ribera de Castilla”. Valladolid. Physics and Chemistry
3. Gustavo Adolfo Cifuentes Sanz, C.M. “La Inmaculada”. Valladolid. Physics and Chemistry
4. Juan Ignacio Montequi Nogués, IES “Vega del Prado”. Valladolid. Physics and Chemistry

Invited colleagues:

5. Susana Rubio Cano, CFIE de Valladolid. Asesora de Ciencias.
6. Rafael Gómez del Campo, CFIE de Valladolid. Asesora de TIC

Educational decision maker:

7. Víctor González Fernández, Consejería de Educación de la Junta de Castilla y León.

Local coordinator:

8. Javier Arribas Gómez, CFIE de Valladolid. Asesor de Inglés. (Secundaria)

Tutor:

9. José A. Cuéllar Vela, CFIE de Valladolid. Asesor de Ciencias.

Invited external guests:

- Domingos Manuel Magalhães Oliveira, Director, Centro de Formação Gaia Sul Porto, Portugal
- Agostinho Figueiredo Frias. Sciences teacher, Centro de Formação Gaia Sul Porto, Portugal
- Luís Filipe Pacheco Barreiro. Sciences teacher, Centro de Formação Gaia Sul Porto, Portugal



- Maria do Rosário Contente Monteiro. Maths teacher, Centro de Formação Gaia Sul, Porto, Portugal

3. *Invited Video-conference participants from **Gijon** (Spain) (11-3-09):*

1. Javier Tamargo, Local coordinator
2. Lourdes Cabeza, Local tutor
3. J Luis Vaamonde, Local tutor
4. Belarmino Corte, Director of our institution
5. Melissa Valdés, Forig languages advisor.
6. Ignacio García Cortés, Mathematics teacher participating in VccSSe
7. Suárez Riestra, Jose Luis Mathematics teacher participating in VccSSe
8. Begoña García, Villa Physics teacher participating in VccSSe

Invited external guest:

- Belén Roza Educational, Advisor, Spanish Embassy, Ireland.

4. *Invited Video-conference participants from **Zaragoza** (Spain) (11-3-09):*

1. Pilar Bazán, Local coordinator
2. Pedro Carenas Local tutor
3. Jose Luis Cebollada, Local tutor
4. Ignacio Polo, Director of the institution
5. Salvador Tardio, Physics teacher, participating in VccSSe

5. *Invited Video-conference participants from **Warsaw** (Poland) (11-3-09):*

1. Wieslaw Tlaczala, Professor, Local Project Coordinator, Warsaw University of Technology
2. Marcin Zaremba, Teaching Assistant, VccSSe Tutor, Warsaw University of Technology
3. Alfred Zagorski, Professor, VccSSe Tutor, Warsaw University of Technology

6. *Invited Video-conference participants from **Bielsko-Biala** (Poland) (11-3-09):*

Science Teachers - participants of VccSSe course:

1. Maria Dębska, IV Liceum Ogólnokształcące im. KEN Bielsko-Biała, Mathematics Teacher
2. Krystyna Mnich, Zespół Szkół Ekonomicznych w Pszczynie, Mathematics Teacher
3. Mariola Maryszewska-Kwaśny, Gimnazjum nr 16 w Bielsku-Białej, Mathematics Teacher



4. Andrzej Pietrzyk, Gimnazjum im. Powstańców Śląskich w Miedznej, Mathematics Teacher

5. Wojciech Zuziak, Gimnazjum nr 1 w Bielsku-Białej, Mathematics Teacher

Invited colleagues:

6. Beata Honkisz, RODN "WOM" w Bielsku-Białej. French Language Teacher

7. Agnieszka Herma, IV LO im. KEN w Bielsku-Białej. Mathematics Teacher

8. Halina Babik-Dziedzic, Gimnazjum nr 16 w Bielsku-Białej, Mathematics Teacher

Local coordinator:

9. Władysław Mańsior, RODN "WOM" w Bielsku-Białej.

Local Tutors:

10. Maria Łątka, RODN "WOM" w Bielsku-Białej. English Language Teacher

11. Zdzisława Tabaka, RODN "WOM" w Bielsku-Białej.

Invited external guests:

- Josef Hvorecky, Vysoka skola namazmentu, Trencin, Slovak Republic
- Bjoern Bjoerneng, Dokka Secondary School, Norway. Physics and Mathematics Lecturer, one of editors of Scandinavian Casionews

*7. Invited Video-conference participants from **Joensuu** (Finland) (11-3-09):*

1. Jari Kukkonen, Senior Lecturer, Local Project Coordinator, University of Joensuu

2. Tuula Keinonen, Senior Lecturer, Tutor, University of Joensuu

3. Teemu Valtonen, Senior Lecturer, Tutor, University of Joensuu

4. Heikki Nykyri, Science teacher participating in VccSSe

5. Ilkka Roininen, Science teacher participating in VccSSe

6. Osmo Kärki, Science teacher participating in VccSSe

7. Kaija Heikkinen, Science teacher participating in VccSSe

8. Olli Hurskainen, Science teacher participating in VccSSe

9. Petri Vainio, Science teacher participating in VccSSe

10. Timo Martikainen, Science teacher, class experimenter

Invited guests:

- Leena Suonio, Virtual High school network of Eastern Finland
- Anu Wulf, Virtual High school network of Eastern Finland

*8. Invited Video-conference participants from **Cluj Napoca** (Romania) (11-3-09):*

1. Glava Adina, Ph.D., Lecturer, Local Project Coordinator, Babes-Bolyai University, Faculty of Psychology and Science of Education



2. Glava Catalin, Ph.D., Lecturer, Local Tutor, Babes-Bolyai University, Faculty of Psychology and Science of Education
3. Bocos Musata, Ph.D., Professor, Local Tutor, Babes-Bolyai University, Faculty of Psychology and Science of Education
4. Baci Ciprian, Local Tutor, Babes-Bolyai University, Faculty of Psychology and Science of Education
5. Muste Delia, Teaching Assistant, Babes-Bolyai University, Faculty of Psychology and Science of Education
6. Cataru Ecaterina, Teaching Assistant, Babes-Bolyai University, Faculty of Psychology and Science of Education
7. Csilli Peter, "Bathori Istvan" High School Cluj-Napoca, Physics Teacher, participating in VccSSe
8. Gocan Mariana, "Nicolae Iorga" School Cluj-Napoca, Physics Teacher, participating in VccSSe
9. Mândruț Viorica, "Gheorghe Barițiu" High School Cluj-Napoca, Physics Teacher, participating in VccSSe
10. Stana Mihaela, "Gheorghe Lazăr" High School Cluj-Napoca, Physics Teacher, participating in VccSSe

Invited external guest:

- Cramariuc Oana, Lecturer, Technical University of Tampere, Finland

*9. Invited Video-conference participants from **Patras** (Greece) (11-3-09):*

1. Vasilios Anastasopoulos, Professor, vice president, Patras' University, Greece
2. Dimitris Nikolos, Professor, Dept of Computer Engineering and Informatics, Patras' University, Greece
3. Charidimos Vergos, Associate Professor, Dept of Computer Engineering and Informatics, Patras' University, Greece
4. George Alexiou, Professor, Dept of Computer Engineering and Informatics, Patras' University, Greece, Local Project coordinator
5. Maria Kordaki, Adjunct ass. Professor, Dept of Computer Engineering and Informatics, Patras' University, Greece, tutor and designer of virtual experiments
6. Sia Balomenou, Mathematics teacher participated in VccSSe
7. Alexandra Misixroni, Mathematics teacher participated in VccSSe
8. Evagelos Papanikolaou, Mathematics teacher participated in VccSSe
9. Papathanasiou John, Science teacher

Invited external guest:

- Thanasis Daradoumis, Associate Professor, Open University of Catalonia, Spain