

eDay Car: sustainable mobility and culture, year 2015-2016

Coordinator teachers' meeting, Matera, Italy, November 5th 2015

Participants:

BG team: Nikolay Nikolov (headmaster), Vanya Miteva (vice headmaster), Nerman Salieva (English teacher),

FR team: Daniel Gouilly (headmaster), Odile Jenvrin (coordinator teacher), Denis Leclerc (car mechanics teacher),

IT team: Antonio Epifania (headmaster), Maristella Saponaro (coordinator teacher), Mariella Vaccaro (English teacher), Vito Sacco (English teacher), Michele Centonze (Electronics teacher), Pietro Cascione (Electronics teacher), Biagio D'Ercole (Electronics teacher), Gianfranco Cosola (IT teacher), Leonardo Calabrese (Mechanics teacher), Giuseppe Capobianco (Mechanics teacher), Anna Serini (Chemistry teacher), Antonio Soranno (Maths and Physics teacher)

Summary: This coordination teachers meeting is held in time halfway in this project since all transnational teams have visited each other's school for a learning meeting. The goals are firstly to acknowledge together a common view of past events and secondly conceive clear activities that are possible to reach, with contents and teams of teachers in charge of these activities. Consequently based on our collaborative experience of the first year we also want to define common working methods for these future activities. Finally we need to read together the application form as initial original text and check there results already reached and those still to be reached.

1. Visual aspect of car body.

- All agree of the latest paintings of the car, all are satisfied.
 - We need to show sponsors identification on the car particular to each country and school logos too. A possible way is to display removable stickers in each country. Stickers are meant to be posted on car windows, also possible on the car body itself. Each country should be free to show the sponsors the way he prefers in his country. IT thinks that we should show all sponsors to the population from all countries. What matters is not the size of stickers but rather the fact that they are shown to all. We agree to leave on both sides on the two back doors a blank space directly below windows for stickers if necessary. These stickers must be electrostatic stickers to ensure that the car body paint is never damaged.
 - For the future drawings, post the past 5 chosen drawings and additionally ask for another drawing based on the latest pictures of the car, now displaying all flags
- teachers in charge, BG: Yakova Iliyana, FR: Martial Hesnault, IT: Maristella Saponaro.

2. Car mechanics activity using QR code (also called flash code).

The forum should be used for collaborative student work online. Various QR codes stickers located inside and outside the car could be flashed to display documentation. Example, open the bonnet, see the QR code, flash on it, and obtain technical information about this part. This QR code may also lead to cultural information for example when flashing QR code posted on a national flag. Moreover, augmented reality can be involved in this technology. The collaborative task is to choose the items that will bear QR codes and to produce in real the QR code. This activity is meant in two separate directions, technical and cultural. Additionally, future documentations should be written collaboratively by students. FR team works once a week on Tuesdays from 10am to 12am and wants to post contents into the forum discussion regularly. These cultural documentations will be combined to a second activity, described below.

Teachers in charge, BG: Krasimir Georgiev (technical) Vanya Miteva (cultural) FR: Denis Leclerc (technical), Maria Caillet (cultural), IT: Gianfranco Cosola, Leonardo Calabrese (technical), Mariella Vaccaro (cultural)

3. Mathematics.

mathematics activities are starting with students now.

Teachers in charge, BG, to come when ready, Nelly Ruseva, FR, Odile Jenvrin, IT, Antonio Soranno, Antonio Di Bitonto.

4. Electric kart engineering.

A video conference were held during this meeting on Tuesday 3rd November between IT teachers, BG teachers and students, FR teachers and students. The goal is to transform an internal combustion engine kart into an electrical one, the kart being located in the IT school. They shared characteristics on the electrical engine to install instead of the internal combustion engine, on autonomy (15mn), on power 8kW, on the kind of battery 4 batteries 12 V 48Ah. It was agreed that students would share their technical documentation on the twinspace. We all have a final goal which is to bring the FR kart to the IT meeting in 2017 for a common competition. The BG team online plans to construct their own electric kart.

Teachers in charge: BG Marian Marinov, FR: Laurent Soismier, Stephane Duchesnay, IT: Biagio D'Ercole, Giuseppe Capobianco

5. History in Memorial Museum Caen.

Goal is communication in war time related to the project ZOE eDay car nowadays. We want to prepare communication documentations towards museum visitors. Some collaborative documentations will be prepared online focused on contents showed by Memorial museum prior to the next meeting in Fr in March 2016. A second activity to reflect on the impact of science and technology on events, war as well as peace in the world, is also offered by vocational school teachers. This activity is meant to increase the sense of European citizenship and brotherhood among the students and countries.

Teachers in charge, BG: Galina Marinova, Nery Salieva FR: Stephanie Peyroulan, Christophe Girard, Ludovic Cahagnier, Lionel Girault, IT: Mariella Vaccaro, Maristella Saponaro, Leonardo Calabrese.

6. Statistical surveys to measure impact of this project in all schools.

It is important to lead such a survey NOW, before next meeting. In fact the survey should have been given at the beginning of this school year.

IT Antonio Epifania agrees to write the questions on limesurvey if a password is given for free through the University of Caen. All teams agree to have students and teachers join that survey online.

Teachers in charge, headmaster in BG, FR, IT

7. Pollution detector.

Angelo Donvito president of company Digimat to council and implement ICT for companies, 27 staff members. Activities are software development, cloud services.

About the project, new technology for web sensor

EU agency INSPIRE manages all data that are georeferenced.

The idea is to develop sensors of humidity, temperature, CO2, noise in order to send immediately the collected data to be published on internet simultaneously.

The platform would be open platform, both as statistical data to be processed later and also data shown on a map.

The organisation is the following:

step 1 : integrate an already developed device by CNR, National Council for Research in Italy, it is probably too big for the car in its size. In this case the sensor's nose would be installed on the roof while the main board would be installed inside the car. An idea is to power this main board by solar panels to be installed on the roof.

step 2 : develop a low cost sensor for humidity, noise, co2, temperature in order to reduce size of the device allowing the whole device to be installed on the roof.

Students from all schools would be involved to develop customisation using open source tools and to develop software components on the sensor itself for data conditioning. Doing so they would cooperate with a private company, enhancing entrepreneurship, and the link between school and companies.

IT chemistry teacher wants to involve chemistry students who would analyze data.

IT CNR develops the device, and gives the liability to use the device for free.

Arising questions are: what is the consumption for this device ? what about a solar panel on the roof to run the device independently? What about the calendar ? The expenses? shall we be authorized to use the device all over Europe?

Calendar depends on CNR to obtain the device as soon as possible. It could be interesting to have the device for March 2016 in France to start measurements. The CNR equipment is for free and the second device is free since sponsored by the company Digimat. Linking CNR in Italy and CNRS in France is foreseen. The device can be sent to FR per post as soon as physically possible. Angelo Donvito sends the link to the video showing the sensor.

Another idea is to connect the measurements directly onto the embarked tablets in the Zoe car. We think that students could develop elements of the software using open source tools and guided by some staff in the company and teachers in school.

FR Michel Marie could embed this idea into his planned activity to involve the ICT expert students in FR.

teachers in charge of, BG Fatme Hyusein (foreign language teacher to inform the BG students and have them repeat to other BG students), FR Helene Gaslonde, IT Gianfranco Cosola, Michele Centonze, Vito Sacco

8. Connected tablets

FR ICT teacher Michel Marie offers to provide project partners with a device to relate cultural and technical documentations to sites through geolocalization. For example the car travels around the Sasso Caveoso and passengers see on the embarked tablets corresponding documentations for a cultural insight of the Sassi. Documentations are collaboratively produced by partner students, two possible tasks for the students:

- firstly the technical part is taken in charge by Michel Marie's older university students (20 year old ICT experts students) who share to ICT project students through peer to peer symmetric communication during the meeting in March 2016. Moreover Italian team offers to give material to feed the database.
- secondly data base needs to be filled with various documentations to be produced in English, history classes, etc. Science classes can provide such documentations from their scientific point of view, for example the reason why in chemistry the limestone in Sassi is so soft.

Cultural QR code teams send documents onto the twinspace prior to the meeting in March 16, say by February 14th, for all teams to read in advance.

9. KERS, Kinetic Energy Recovery System activity, recover bumping energy.

Biagio D'Ercole would like to prepare this activity from now on to foresee the delays for collaboration with Renault company. BG students are interested in this activity. Collaboration can start between IT and BG. FR students did not choose this activity for their final school degree 2015-2016. IT BG collaboration launched on this would encourage future FR students to join in school year 2016-2017.

10. Individual certificate of attendance for students, displaying logos

- one certificate for students who participate to the EU project for the school year,
- one certificate for students who participate to a mobility

FR Francois Callu, offers a first proposal on the twinspace for further modifications suggested by national teams.

11. Using tablets during mobilities.

all students do not have equal abilities using the tablets. We want to train all transnational students during the next mobility in FR to have them reach equivalent standards of competences with this tool.

12. Expected form of filmed collaborative productions from students, during one mobility.

Production should be 3-5 minutes long and should be creative

For all teams, each student must participate actively to the production and should speak as often as possible.

All productions should have a sound track with student voices from the three national teams.

Teachers must help students to talk finally in the productions, for example rehearse their oral contribution.

Once roles have been assigned to each member of the group, each student has a right to free access to the tool. All photos are taken as much as possible with that single tool, but any additional tool can be taken to foster creativity if necessary.

The number of members of each student team keeps being an issue discussed among teachers. Concerning the production precisely, if possible under local constraints each team should preferably consist of 4 students, 2 local students and 2 foreign students.

13. Foreseen collaborative task for the next learning meeting.

Activity offered during the FR meeting in March 2016

Numerical chain leading to constructing a small ZE car model of the size of a key ring. This will be detailed in the next video conference.

14. Schedule for meetings.

BG offers to have student meeting in October 2016 (beginning of October for climate reasons), then student meeting by March 2017, then teachers meeting in BG in May 2017. We foresee difficulty to reach a common date in March 2017 because of Easter and spring holidays. We will have a coordinators video conference by June 2016 to reach dates for these meetings.

15. Schedule for the FR meeting in March 2016.

Calendar of FR meeting in March 2016 is planned from Thursday 10th March to Tuesday 15th March 2016, as five working days.

It is important that all participants to arrive in FR latest by Wednesday evening in order to be able to start common work all together from 8am the next school day.

It is comfortable for host families and foreign students to meet not too late at night, latest at the end of the afternoon, around 8pm. BG team checked their flights. They promise to book their flights soon to be able to arrive late afternoon. IT team too.

16. Enhance among participants the feeling of EU citizenship.

Each mobility should contain one action, a simple action, to reinforce among students and staff recognition of EU funding to encourage the common collaboration as well as the feeling of belonging to a whole, Europe.

17. Coordinator teachers video conference,

2 times before the FR meeting in March 2016, lasting one hour
Best choice for all is on Wednesdays at 1:30pm

- December 9th 2015
- February 24th 2016

18. Internal checking of all goals promised in the application form.

The project application form was read together after a year of collaborative work through a list of all goals, results, impacts promised. A chart displaying each national points of view shows agreements on a large majority of goals reached and of those still to be reached. See attached document "Internal Check Application E+".

19. Keeping an eye on the project website.

One teacher from each country is in charge of keeping an overall view over the twinspace, in its role of “showroom of the project” to value the website of the project.

Teacher in charge: BG Fatme Huysein, FR Odile Jenvrin, IT Michele Centonze

20. Video about the learning event in BG.

A 10 minute long video is shown to all participants to present the contents and atmosphere reached during the latest learning event in BG. This video is kindly made by FR teacher Jean-Marie Bérard as a present to celebrate the success of BG organisation team. we are all thankful for their leading role as an Erasmus+ newcomer and their involvement.

21. Farewell dinner in town.

After a long day of project discussions all teams gather for a traditional Italian diner, where numerous Italian teachers spontaneously join the Bulgarian and French teams. The atmosphere was very warm to such a level that allowed also many informal results for the project. These are a peer to peer sharing on working conditions in the three countries, between headmasters on one hand, between teachers on the other hand. These conversations were a follow up of school tour together. A warm thank you to Italian team for their European brotherhood towards their guests.