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Reversed Roles at School:
Flipped Classroom and Learning Through Teaching

ERASMUS+ KA2 PROJECT 2016-2018



PROJECT TEAM:

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SUMMARY OF THE PROJECT

The project is a cooperation for innovation and exchange of good practices between 7 European schools from Poland (the coordinator), Italy, Lithuania, Turkey, Romania, Greece and Hungary. The participants of the project are students aged 15-18 attending comprehensive or vocational schools. The objective is working out a methodology based on innovative techniques and ICT tools. The core of the project is the exploration of an innovative approach in education called "Flipped Classroom" which inverts traditional teaching methods delivering instruction online outside of class and moving homework into the classroom. The shift of the teaching components results in greater student engagement in the classroom activities and better academic performance. What is more, students are more aware of their needs and skills, which makes them more responsible for their education. The method is deeply imbedded in the digital era because it involves creating instructional films by students themselves. They learn through lecturing their peers thanks to creative and emotional engagement in designing videos and other electronic tools.

Flipped classroom can be used with every subject but we concentrate on Science especially Mathematics.

Work on the project in the initial phase is to acquaint the teachers from the participating schools with the applications used to create advanced videos, screencasts, slideshows and other audio-visual materials. The main part of the project is to use the method in practice and flip a chosen school course to see how the method works. The final step is the evaluation of the exploratory process and its impact on the teaching process. The project includes many activities, some of which are completed during 3 blended mobilities. Students test different applications and design didactic materials in different classes (Maths, Chemistry, Biology, Foreign Languages, vocational subjects). During blended mobilities they simulate flipped classrooms and learn cultural background of the partners' countries using ICT tools.

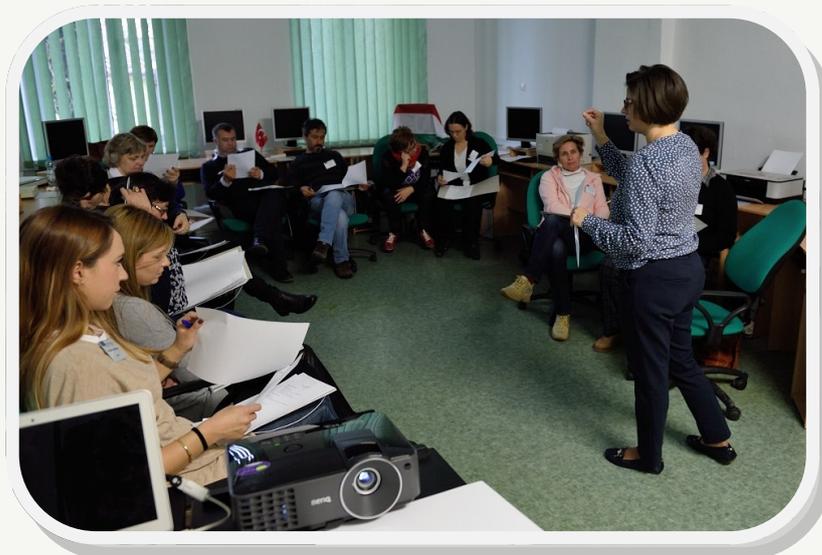
The project envisages further international cooperation for more studies in the innovativeness of the method and its implementation in the school curricula. The method is a complete novelty to all the schools taking part in the project which is a pilot course using it. The disseminating process helps to inform the greatest possible number of teachers about its aims, structure and benefits. The main tools of dissemination is the internet: webpages of schools and educational institutions. The results of the project are reports on the method research and use as well as the didactic base which can be used and enriched in the future.

Minutes of the meeting

The general idea of the meeting was to prepare the teachers from the partner schools for accomplishing the goals of the project. The training activity was essential and it was a perfect kick-off meeting in all aspects.

The leaders from all the partner schools met at the teacher training session in Poland. They learnt about the objectives, structure and expected results of the flipped classroom model. Then they were instructed on how to use the software applications for video podcasts and screencasts creation (Jing, OBS, H5P, Ezvid, Audacity). The core of the training was Camtasia which is a versatile tool for making professional videos. The instructor was Mr Czyżuk, the lecturer from The University of Bydgoszcz. Then the teachers tested graphic tablets used for Maths classes. The 5-day training agenda also included programs such as Kahoot for creating quizzes and Powtoon for creating animated presentations.

The teachers were acquainted with two educational platforms –Edmodo and Moodle. They agreed to post the results on the school platform called Edmodo where teachers and students communicate and do the tasks assigned by their teacher.



SZUBIN MEETING (16 - 22 NOVEMBER 2016)

Impressions from the meeting



Ice breaking session



Preparing flipped scenarios for registration



Camtasia Film Editor training



Peer learning on Powtoon software



Multinational team after the training



Visit to the mayor of Szubin



A meeting with the county mayor



Certificates

Minutes of the meeting

The general idea was to prepare the students from all the partner schools for making their own videos to be used in the final project period (September 2017-June 2017). Since the project targets at students teaching their peers, during the blended mobility in Italy the central activity was so called Tool-torials. Each partner presented a chosen tool. Students demonstrated different tools and explained their options and what they can be used for. The list of the tools included: Edpuzzle (Poland), Redmenta (Hungary), Videosoftdev (Romania), Moovly (Turkey), Kahoot (Italy), Youtube Editor (Lithuania) and Movie Maker (Greece).

Then each team made a video on Italian customs. Another activity was to create cartoons with the use of special cartoon and comic creators such as ToonDoo, Chogger, Make Beliefs Comix, Strip Generator and Strip Comics! All the comics were in English so students could learn some facts about each other's cultures but also became digitally more fluent in using certain internet tools. The third activity was a debate whose topic was "Do parents have the right to log in their teenager children webprofiles on social networks?". Students used an online voting platform called Tricider which turned out to be ideal for brainstorming and collecting ideas. The following day the debate was preceded by a short presentation made by Serena Lenza on how to debate e.i. its organizational structure. After the theoretical part, the volunteers were divided into groups of three. There were two rounds of the debate. Each time one group of three students were the Opposition and another three- the Proposition. The debates went smoothly. Both groups in each round presented their sides of the issue. Then teachers voted for the strongest and most convincing speeches. The last activity was to fill in an online Maths dictionary. It is a Google Drive document in which Mathematical terms are in 7 different languages: Polish, Hungarian, Lithuanian, Romanian, Greek, Turkish and Italian. Each team chose a Mathematical area and added 10 words which had to be translated into the partners' mother tongues. The dictionary was used throughout the project during Flipped Maths lessons.

Apart from work at computers in the school lab, the students went on sightseeing tours in the neighbouring area. They had a unique chance to explore Montefiascone (Rocca dei Papi, the Cathedral, Santa Maria delle Grazie, San Flaviano & Lake Bolsena). The tour was guided by both teachers and students from Italy. It was mainly Italian students who told us about the places we visited. Another place of interest was Viterbo where we saw Palazzo dei Papi and Bagnoregio- the picturesque ancient town. The most exciting trip was to Rome. We saw the Trevi Fountain, the Quirinal Palace, Spanish Stairs, Capitoline Hill, Forum Romanum the Colloseum and the Vatican. During these trips all the students and teachers learnt a lot about the Italian geography, history, culture and architecture. They got familiar with the Italian traditions.

Project's another objective was to give the participants of the mobility an opportunity to develop their linguistic skills. Apart from taking part in the project activities, they spent with each other their free time talking and discussing things. Some students had an extra opportunity to use English in everyday situations thanks to staying with host families.

For the teachers the mobility was a perfect occasion to share their ideas and experience when helping their students to perform their project tasks.

Impressions from the meeting



Ice-breakers for students



Presentations of schools



Instructions for the debate



Debate sessions



Tool-tutorials



Kahoot contest



Exploring Rome



Farewell photo

Minutes of the meeting and Impressions

Its purpose was to discuss in detail the problematic aspects of flipped classroom teaching and their solutions. The 2-day meeting was to show how each country familiarized their students and teachers with the method and what source materials were used during the first stage of the project.

Next, a list of the tools that were used for creating instructional videos in the second stage of the project was made. Each partner presented a selected film that was created at their school and explained how they created it. Another list we created referred to "The Problems and Solutions" that each school encountered during the implementation of the project in 2016/17. It served all partners in crisis situations. The results of the first stage evaluation (surveys for teachers and pupils) were also presented. The survey carried out in Google Forms showed the degree of satisfaction among both groups from the method. Another evaluation questionnaire was completed by both groups at the end of June. The final version of this questionnaire was discussed at the TPM. Another issue discussed was the form of monitoring and evaluation in the third stage.

The leading subjects for regular flipping were chosen (Math and English) and the frequency of lessons based on films created by teachers or students was determined (one video per month must be made by either a teacher or a student within a class). Another issue under discussion was the evaluation of Stage III. It was suggested that within a chosen class grades in flipped content would be compared with grades in non-flipped content to see if flipping affected positively the students (quantitative evaluation). In terms of qualitative evaluation, an interview with a randomly selected group of 5 students in each country will be carried out. The students will be asked open questions (the list of questions was suggested during the meeting). We also agreed that the higher frequency of lessons with the method and the additional forms of evaluation depend on the individual decisions of each partner schools which means that the requirements we discussed are obligatory and minimal.



Minutes of the meeting and Impressions

Agenda for the Katerini project meeting:

1. Assessment of Stage I (Trial Period)

- *Flipped Classroom method implementation in partner schools (how the method was explained to both teachers and students)
- *Use of ready-made films (list of sources)
- *Teacher Training Session-evaluation results presented: Turkish questionnaire
- *First steps in flipping (experience shared: problems encountered and solutions)
- *Evaluation of Stage I(results of Hungarian questionnaire presented)
- *Report on Stage I (what information & statistics should be included)

2. Assessment of Stage II (Pilot Period)

- *Gathering statistics (tables)
- *Best video samples presentation
- *Video-making: problems encountered and solutions
- *Involvement of students in Flipped Classroom
- *Evaluation questionnaire - final version
- *Mathematical dictionary - final version
- *Tools and equipment used in flipping (list of useful tools)
- *Draft of Report on Stage II

3. Planning of Stage III (Proper period)

- *Idea of flipped courses discussed (subjects, frequency)
- *Dissemination (website, fanpage, Erasmus Results Platform, final publication & film)
- *Evaluation questionnaire (scope discussed: grades, attendance, attention in class call for assistance)
- *Blended Mobility in Hungary (schedule, type of activities for students)
- *Video-making in the open air: suggestions
- *Fixing the dates of TPM in Lithuania and Blended Mobilities in Hungary and Poland



Minutes of the meeting

The main idea of the mobility was to show the students and teachers from the partner schools how flipped classroom works in classes of foreign languages.

Thanks to the tooltutorials which took place in Italy the students were well prepared for making their own videos. Before the mobility they were asked to make video lessons. The videos covered the basics of their mother tongues-greetings, colours, numbers, countries and school objects. The videos were about three minutes long and were sent to all the partner countries one week before the beginning of the mobility.

As a result, all the participants were assigned six videos to watch as homework which constituted an essential part of the lessons carried out in the Hungarian school. The tools used were PowerPoint, Powtoon and Ezvid.

The second part of all the flipped classrooms were the proper lessons, each 1,5 hour long, during which the students were teaching each other their languages.

Each lesson plan covered the material shown on the videos and included various tasks and exercises in both spoken and written form.

Additionally, students took part in flipped classrooms in Maths (Golden Ratio), Tourism (Passive Voice in Hotel Language) and English (British Civilisation and The Origins of Hungarian Language). They were all carried out by the teachers from the host school: Katalin Bondar, Eva Kalman and Norbert Schmidt respectively. Each lesson included a video made by the teachers and posted on Facebook project page prior to the visit.

A separate class was devoted to elementary knowledge about Hungary which was followed by a quiz.

Apart from participating in flipped classrooms, the students went on sightseeing tours in the neighbouring area. They explored Eger - its castle, thermal baths and baroque buildings. They went trekking in the Bükk Mountains and bathing in the spa. They also visited BÉlapátfalva, a town in the vicinity of Eger, where they toured the Romanesque abbey.

The students also went on a daily trip to Budapest to see the Parliament, Buda Castle, Gellert Hill and Heroes' Square. Both the trips and the class about Hungarian history and customs were a valuable learning experience for all the participants. They learnt a lot about the Hungarian partners and their country. On the way back to Eger they had a quiz on the bus about what they saw and learnt in Budapest.

Apart from the knowledge they gained they benefited socially through the work in mixed groups during the classes. They had a chance to interact and make friends both at school and in their host families.

The linguistic abilities of participating students improved as well as their computer competency.

They are well trained in videomaking and editing and can successfully produce good quality videos for their classmates during the last stage of the project and long after the project has ended.

EGER BLM MEETING (1 - 7 OCTOBER 2017)

Impressions from the meeting



Welcoming at school



Teaching some basic Hungarian



Flipped lesson: Golden ratio



Students teaching their languages



Kahoot competition



Flipped lesson: Tourism



Expoloring Eger



Farewell photo

Minutes of the meeting

The aim of the meeting was to summarize the last stage of the project which was Proper Stage. It was based on conducting regular classes in chosen subjects. The partners chose the following classes for flipping:

- *Poland: Maths, English and Biology (sporadically)
- *Italy: English, Chemistry and Art History
- *Turkey: English, Maths and Biology
- *Hungary: Maths, English, Civilisation, IT, Tourism & Economics
- *Lithuania: Maths, IT, Art, Physics & Citizenship
- *Greece: Maths & English
- *Romania: English, Maths, IT & Tourism

Then a list of all the videos all the partners have done was made.

Agenda

12 April

I. Evaluation of PROPER PERIOD - collecting data

- 1) Subjects flipped regularly
- 2) Topics of videos in English (for the project's database)
- 3) Evaluative Student Interview - analysis
- 4) Evaluative Questionnaire for Parents – analysis
- 5) Evaluative Observation Card for Teachers -analysis
- 6) End of Semester Grades analysis (chosen group)-analysis
- 7) Flipped and non-flipped classes -grades analysis

13 April

I. Dissemination of Project Results

- 1) Project Website (presentation)
- 2) Erasmus + Results Platform (choosing results for presentation)
- 3) Video (collecting material)
- 4) Publication (collecting material)

II. Blended Mobility in Poland

- 1) Agenda – draft and suggestions
- 2) List of participants

III. Tips for Final Report

It was a very fruitful meeting for the partners in terms of discussing the progress of the project and planning the next steps.

PANEVEZYS MEETING (11 - 14 APRIL 2018)

Impressions from the meeting



First day sessions



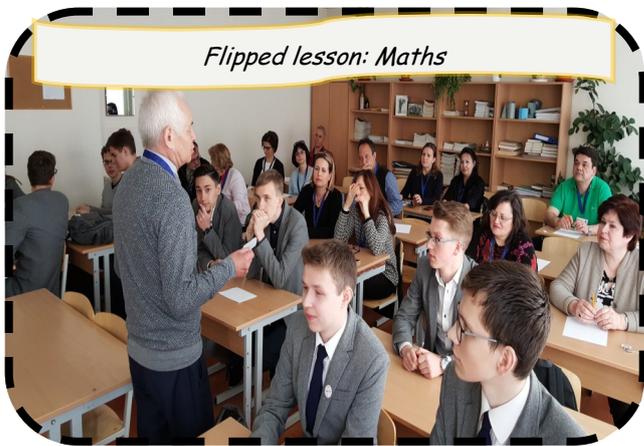
Project poster



Debate at school



Second day sessions



Flipped lesson: Maths



Visit to local authorities



Evaluation session



Farewell photo

Minutes of the meeting

Students watched first aid video manuals before arrival and practised resuscitation during the mobility in Szubin. They also had flipped classes in Maths, Biology and PE.

During the field trip at the lake they tested the earth and water to check their quality. In the PE class they played tchoukball.

The program also included Chemistry workshops during which the students produced their own soup and confectionery.

The mobility agenda also included a visit to the Astronomical Observatory in Toruń.

Apart from flipped lessons they learnt about the most famous tourist attractions of the region and the Polish culture.

During the visit to the city of Bydgoszcz they found out about the history of the city when participating in the Street Games.

They learnt about folk traditions and were instructed on how to make folk paper decorations during the workshops that took place in the local Leisure Centre.

On the last day a gala was held. During the gala the project was summarized and its results were presented. The Best Video Competition was announced.

At the meeting the representatives of the local political and educational authorities were present.

A film about the project was presented. A party dinner in Biskupin was held to say goodbye to all the participants.

The last workshops took place in the oldest settlement in the region, during which students were taught how to use a bow.

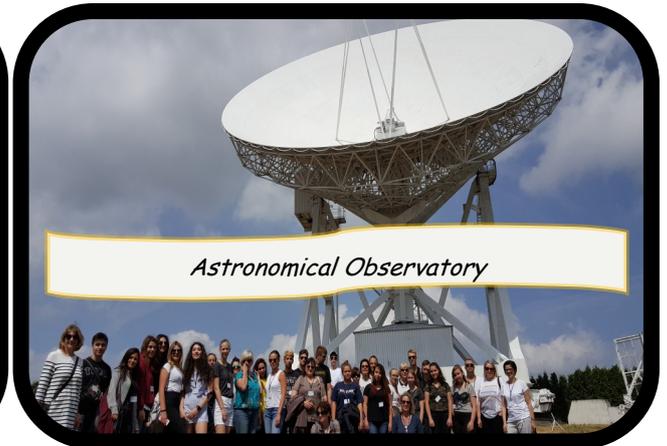


SZUBIN BLM MEETING (3 - 9 JUNE 2018)

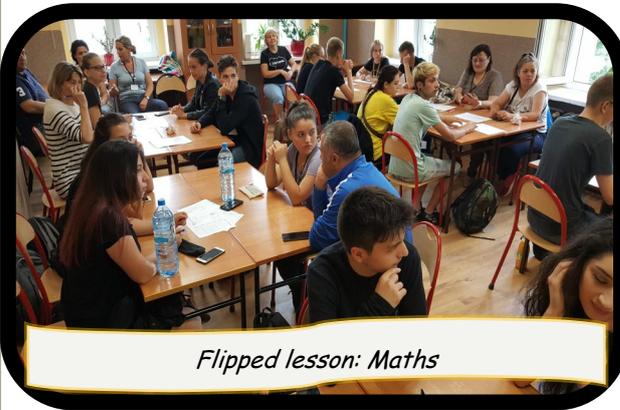
Impressions from the meeting



Tchoukball



Astronomical Observatory



Flipped lesson: Maths



Gdansk trip



Flipped lesson: First Aid



Group photo at school



Bydgoszcz trip



Certificates

THROUGHOUT THE PROJECT

Nice memories



Szubin 2016



Montefiascone



Katerini



Eger



Eger



Panevezys



Szubin 2018



Szubin 2018

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**Reversed Roles at School:
Flipped Classroom and Learning Through Teaching**

ERASMUS+ KA2 PROJECT 2016-2018



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For more information about the project please visit:

<http://flippedclassroomerasmus.eu/>



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