

Erasmus+/Comenius-Cooperation of European Schools Using GIS Applications to Assess “Life in Our Neighbourhood – Life in Our City”

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Short paper

Abstract

Erasmus+ (formerly and during our studies known as Comenius) is an international programme financed by the European Commission to enhance cooperation and mutual understanding between schools, students and teachers within the European Union. The paper describes results from a Comenius school project with five schools from Belgium, Finland, Germany, Lithuania and Poland, assessing the topic “Life in our neighbourhood – Life in our city” by the use of easy geomeia applications.

1 Introduction (Programme and Participating Schools)

The Comenius Lifelong Learning Programme Call 2013 of the European Union (from 2014 onwards known under the name of Erasmus +) aims at the betterment of the understanding of different European societal backgrounds under the auspices of different European school systems and schools. The Comenius project titled “Life in our neighbourhood – Life in our city” was put together and organised by schools in five different member states of the European Union: the Onze-Lieve-Vrouw-Presentatie in Sint-Niklaas, Belgium, the Oulun Lyseon lukio in Oulu, Finland, the Ragaines Progimnazija in Siauliai, Lithuania and the X Lizeum I. J. Paderewskiego in Katowice, Poland, under the leadership of the Städtisches Adolf-Weber-Gymnasium in Munich, Germany. It started in autumn 2013 with a first kick-off meeting in Munich, and will terminate in May 2015.

During the life of the project, the participants (students from the participating schools, most of them from the Upper Secondary level, accompanied by their teachers) met every few months in one of the participating schools, exchanged information about the project work done in the meantime at the different schools, and worked together in small groups to fulfil certain tasks on the spot.

The international cooperation in a common project was consequently designed to motivate pupils and teachers at the same time, and to make them work as disseminators of the European spirit. Within the structure of our cooperation, new insight views on living conditions, culture and school systems came into existence. The students got to know more about the living conditions in their hometown because they were supposed to examine the topography/infrastructure and living conditions of their own neighbourhood and cities. By comparing their results with those of the partner schools from abroad, they achieved intercultural competence, which will prepare them for their future adult lives as citizens of Europe. Mul-

tidisciplinary and activity-oriented project teaching offered the students the opportunity to experience and shape their own present and future in a Europe, which is growing closer incessantly.

2 Project Work and Results

The main topic “living conditions” was dealt with in several ways. The central result of the cooperation is basically meant to be a compilation of data in the urban district/city, followed by a statistical analysis, by questionnaires, structural analyses, and finally the visualisation in a GI. Four results of the work on the topic are shown in this paper. Before starting the projects no analysis of previous studies/literature etc. was done to make sure that students would start their creativity from scratch.

One of the early projects within the cartography part was the visualization of local living conditions with regards to housing infrastructure. The idea was to get a sort of first impression of the partners’ neighbourhood via maps without actually seeing pictures from the area. To achieve this, three different aspects were included: The height of the buildings in the vicinity of the school, the age of the buildings and the use (private, business, public etc.). The students had to walk around the neighbourhood and collect the necessary information. Then they first coloured analogue maps according to their findings. A group of specialists (students who wanted to travel with the Comenius group to the partner schools in the participating countries) then collected the pieces of information and visualized them (polygons) in a simple online GI (arcGIS Online; Fig. 1).

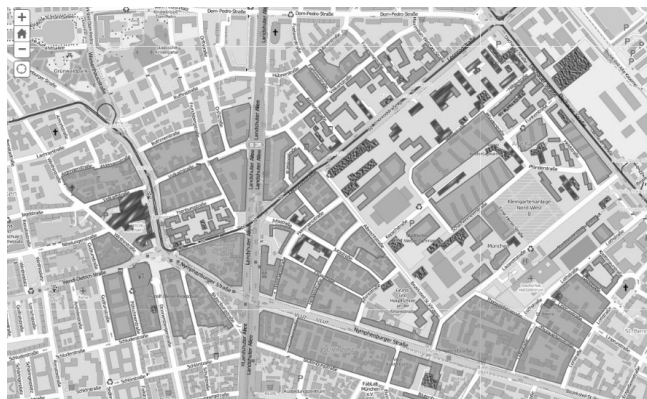


Fig. 1:

The vicinity of the school in Munich-Neuhausen (sports ground in the center) with regards to the height of the buildings (assembled with arcGIS Online).

Dotted: Buildings with 1 or 2 floors; Grey: Buildings with 3-5 floors; Blurred: Buildings with 6 or more floors.

These results (of the Munich group) were compared with the maps of the Finnish group at the second meeting of the project participants in Oulu, Finland. Their findings showed a completely different situation (houses in northern Finland are much smaller and further apart, the living conditions, and so on, are consequently very different too). This sparked a discussion amongst the students, even though the results did not come as a big surprise, and led to further project ideas.

Another project triggered off during these discussions dealt with the location of graffiti in the partner cities. The graffiti were located by the students (most of them known before-

hand) and classified. They inserted the locations (point-shape) in Google Maps (My Maps) and added a short description. A result for Munich, Germany, and Katowice, Poland, can be seen in Figure 2. During the fifth project meeting in Sint-Niklaas, Belgium, the students discussed the differing styles of graffitis, their locations and the sub-culture behind them in their respective neighbourhoods.

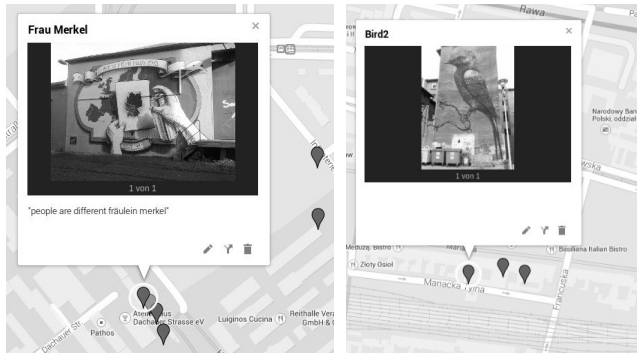


Fig. 2: Street-art in Munich (left) and Katowice (right), collected, localized and visualized in Google Maps to be compared with other cities (motif, frequency, localization)

One of the most recent projects was the analysis of the way to school that the students have to take. The students were asked to track their way to school with their smartphones and then visualize the manifold ways to school with Google Maps. This was followed by discussions about not only the shortest and fastest way to school, but also about “nice” ways one could take (through parks, along rivers etc.).

The latest project work comparing results from different countries via geomedial was taking the aspect of living conditions a bit further, and asked the students for the origin (birthplace, if known) of their grandparents, thus describing the ethnic background of their respective neighbourhood. The collection of data is very easy, again with analogue maps, first at a national, second at a European, and last at a World level. Then the points were inserted into a digital map (My Map in Google) with different colours for the different schools (Fig. 3).



Fig. 3: Birthplaces of grandparents for students at the Adolf-Weber-Gymnasium in Munich, Germany (excerpt for parts of Europe in Google Maps), in round dots, students from Finland in squares, from Poland in diamonds, from Belgium in beads and from Lithuania in stars.

The students discussed the history of migration within Europe for the second half of the twentieth century; in some cases events even dating back to the time before World War II (grandparents!) and the push- and pull-aspects associated with it. Whereas one community shows very limited migration (the school in Belgium), another school had grandparents from all over the country (Finland) and the German school ancestors from all over Europe.

Another project, more locally executed, involved the collection of healthcare institutions in the area close to the school in Munich. It was easily done by just inserting point symbols into the map (using Google Maps again) and a result can be seen in Fig. 4.



Fig. 4: First issue of the map of institutions for healthcare (including spelling mis-takes) for the vicinity of the Adolf-Weber-Gymnasium in Munich (Google Maps).

3 Discussion

This paper aims at two things: Fostering the idea of a European cooperation amongst schools within a frame that offers the students opportunities to participate in a mutual project and communicate with each other inside and outside the classroom. The exchange of information is an easy task nowadays for *digital natives* and the media they command are manifold. In the best of cases, crowd intelligence may become a future result of workshops like the one presented.

And, secondly, the work with easy geomeadia tools is a fantastic way to quickly build confidence and a sense of cooperation amongst the students. It also teaches them how to perceive given maps and how to manipulate and create maps themselves. Quite a few positive aspects may be seen in this context. The students become more proficient in spatial competence in general, by spatially analyzing their environment, and then by representing it via digital mapping.

They also learn how to organize and “shape” information by collecting information and by selecting relevant (or subjectively chosen) details. In that respect they experience space that surrounds them on a new level and they realize that this space consists of different layers, like in a GI. This hands-on aspect, valuable in itself, is just the icing on the cake. Future tasks in that respect, no matter if at university level or in a job, will hugely profit from such proficiency, learned and put to use within a truly European project.