

# Preparing a Vienna Project Week in Web 2.0 (from Approved Forms of Preparation to E-Learning Resulting in E-Content)

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This contribution was double-blind reviewed as full paper.

## Abstract

Visiting the federal capital of Vienna is compulsory in most Austrian secondary schools, especially in the 8th grade. In general, this “sightseeing tour” lasts one week. Generally speaking, as a teacher you can choose between two forms of organising this project week: Either you take advantage of the so-called “Wien Aktion”, which is a programme run by the Austrian government. They set the structure for your tour through Vienna and plan your itinerary. However, you may also arrange your project week yourself, which involves lots of intensive preparation beforehand, especially in class. During the project week, your self-planned programme is a mixture of booked tours (e.g. St. Wiener Stephansdom, ORF = Austrian television broadcaster, Vienna International Airport, Technisches Museum Wien) and self-organised sightseeing activities. The principle “from learning facts to activity-oriented working” is a guideline for the preparation time as well as all the activities during the project week. This paper shows how planning this project week can be supported by geomedial.

## 1 Theoretical Background, Skills in Class

### 1.1 Skills in Geography

A fundamental requirement for choosing a teaching technique is a constructivist vision considering equality between functional and everyday life perspectives. This is also demanded by the Austrian as well as German educational standards in order to develop knowledge in a systematic way (DGFG 2008, 12; BM:UKK 2007, 2012). After weeks of in-class preparations, particularly getting to know traffic links and how to use various means of transport for sightseeing in a city, in this case the federal city of Vienna, the next step is to use and realise the acquired knowledge in real situations. This kind of teaching aimed at practical application tries to realise a paradigm change in matters of education policy, going from an input focus to an output focus. Therefore education has to offer a selection of topics activating the learners’ knowledge, skills and desire and make aware of the fact that we learn not only for school but for life (HOFMANN-SCHNELLER 2011). For geography education, two areas – spatial perception and gaining awareness of methods (see Tab. 1)

**Table 1:** Areas of skills und core skills in Geography

Area of skill	Core skill
Spatial perception	The ability to evaluate how things are arranged in space, and investigate their relations in the environment (e.g. topographical knowledge, knowledge of how to handle maps, ...)
Process of gaining awareness, methods	The ability of gaining and interpreting geographical information and information in context with earth science in real space as well as with the help of media; being able to describe acquired geographical knowledge

## 1.2 Digital skills

Basic media skills and media education require to an increasing degree of action-oriented teaching and therefore corresponding methodology and pedagogy.

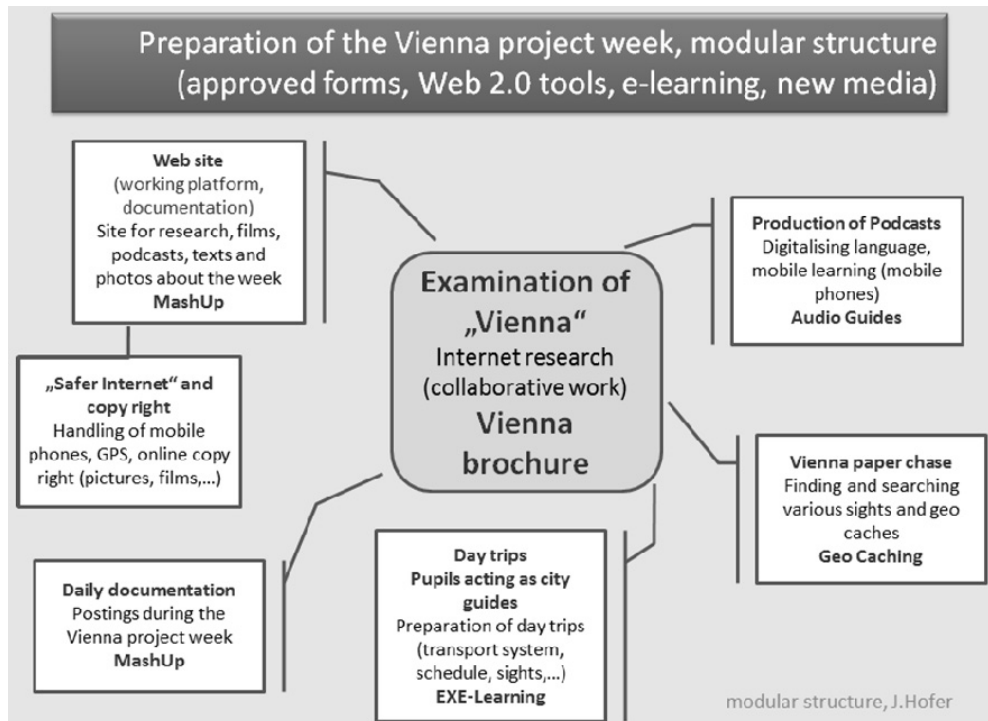
**Table 2:** Areas of skills and core skills in Information Technology (LMZ 2007, 10-11).

Area of skill	Core skill
Responsibility when using IT	Copy right (music, films, pictures, texts, software)
Design and use of personal IT systems	<ul style="list-style-type: none"> <li>• using Information Technology (IT) for (networked) learning</li> <li>• exchanging data between different electronic equipment</li> <li>• using the basic features of a learning management system (LMS)</li> </ul>
Documentation, publication and presentation	<ul style="list-style-type: none"> <li>• entering, formatting, copying, inserting, dragging, deleting texts</li> <li>• modifying and correcting texts</li> <li>• designing documents and presentations supplemented with pictures, charts/diagrams or other objects</li> <li>• using and designing digital texts, pictures, audio- and video-data in latest formats with the help of various devices and tools</li> </ul>
Research, selection and organisation of information	<ul style="list-style-type: none"> <li>• using and mentioning important sources of information, which are useful and necessary for academic and private information needs, online and in a reasonable and purposeful way</li> <li>• targeted research of information and media on the Internet using various services and suitable search terms</li> <li>• naming and using criteria proving the reliability of information sources</li> <li>• providing others with information on the Internet considering references and copy right</li> <li>• using and adapting data from the Internet in different application programs</li> </ul>

- Using available media in an appropriate way (which is the acquisition of knowledge through media, its features and how to use these features, knowledge about the development of media and its distribution, ability to choose suitable media for the various purposes and also give reasons for the choice and reflect afterwards).
- Creating topics with the help of given and available media technology (for instance designing school magazines or diaries, sound reports, producing e-content, etc.).

## 2 Project Concept

In order to ensure a successful learning process it is necessary to deal with the subject “federal city of Vienna” in an intensive way beforehand, especially through careful preparation. Therefore established ways of preparation are combined with new possibilities of various Web 2.0 tools. Thereby all the activities form a modular structure. Such a concept enables you to choose various parts without any problems. There are some crucial cornerstones for preparation:



**Fig. 1:** Modular structure of the preparation

- Cooperative design of a Vienna brochure
- Collection of several multimedia Web contents in a mashup application
- Development of self-created audio-guides (mobile phones)
- Preparation and illustration of the various day trips with the help of the authoring tool exeLearningPlus
- Creation of a traditional Vienna paper chase combined with geo-caching coordinates
- Documentation of the daily touristic activities with the help of postings during the project week
- Dealing with the topics “Safer Internet” and “Copy right of Web contents”

### 3 Preparations in Detail (Integrated and Used Web 2.0 Tools)

#### 3.1 Internet research and design of a Vienna brochure

For students, there is a main focus on the cooperative design of a Vienna brochure. Previous project weeks have shown that many pupils and very often even their parents like to have some written result after this intensive time of preparation. Internet research is the basis for similar as well as new e-content. This makes e-learning in its various forms possible. The organisational framework is provided by an online course called “Vienna project week 2012” available in the e-learning software platform Moodle (= learning management system, short LMS) within school.

**GESTALTUNG DER BROSCHÜRE (Layoutvorgaben)**




**Formatvorgaben für die Gestaltung der Broschüre!**

<p><b>Hauptüberschrift:</b> - WordArt: freie Gestaltung</p> <p><b>Unterpunkt:</b> - Schriftart: Calibri - Schriftgröße: 14 Pkt. - fett und unterstrichen</p> <p><b>Informationstext:</b> - Schriftart: Calibri - Schriftgröße: 12 Pkt. - Blocksatz</p>	<p><b>Wichtige Textstellen:</b> - fett und kursiv</p> <p><b>Bilder:</b> - Textfluss: Quadrat - Rahmen: 1 Pkt. - bis zu 3 Bilder/ Seite</p> <p><b>Fußzeile:</b> - eigener Name</p>
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Arbeitsdateien zur Erarbeitung der Broschüre!

-  Datei: Beispielseiten zum Ausdruck
-  Datei: Dokumentvorlage
-  Upload: Recherche - Sehenswürdigkeit

**Fig. 2:** Learning management system, chapter number 1 „Design of a Vienna brochure“ – layout requirements

Each pupil receives a topic, in this context an important sight in Vienna. With the help of Internet research the learners create an information sheet, consisting of two pages most of the time. Additional pages provide extra information such as the title page, a foreword, a page showing a picture of the party, the structure of the week, the history of Vienna, architectural styles in Austrian art, various quizzes and blank pages for the diary to be kept during the project week. General formatting according to certain design directives guarantees a standardized layout of the final product, which will be in hardback.

The method of teaching is the one of blended learning as students combine face-to-face education at school with computer-mediated activities at home. Pupils submit their assignment in the appropriate chapter of the e-learning platform (hyperlink “Upload: research – sights“ = „Upload: Recherche – Sehenswürdigkeiten“). This also allows feedback and exchange, with both the teacher and their colleagues.

The hyperlink called „File: example pages for printing“ = „Datei: Beispielseiten zum Ausdruck“ shows a draft of a possible final paper for all the students.

### 3.2 MashUp-application: collection of multimedia-based Web contents – [www.protopage.com](http://www.protopage.com)

Apart from the e-learning software platform Moodle there is a second main area of preparation: This is a predefined collection of various multimedia-based Web contents implemented by a Web 2.0 tool called “Protopage”. “Protopage” is a representative of the mashup technology on the Internet.



**Fig. 3:** Mashup-application

„A mashup, in web development, is a web page, or web application, that uses and combines data, presentation or functionality from two or more sources to create new services. The term implies easy, fast integration, frequently using open application programming interfaces (API) and data sources to produce enriched results that were not necessarily the original reason for producing the raw source data. The main characteristics of a mashup are combination, visualization, and aggregation. It is important to make existing data more useful, for personal and professional use. To be able to permanently access the data of other services, mashups are generally client applications or hosted online. In the past years, more and more Web applications have published APIs that enable software developers to easily integrate data and functions instead of building them by themselves (e.g. Google Maps, films on YouTube). Mashups can be considered to have an active role in the evolution of social software and Web 2.0. Mashup composition tools are usually simple enough to be used by end-users. They generally do not require programming skills and rather support visual wiring of GUI widgets, services and components together. Therefore, these tools contribute to a new vision of the Web, where users are able to contribute.“ (WIKIPEDIA 2013)

As the various Web components are selected in advance, Internet research can be made much faster and more productive. With this method, low-level achievers can easily find appropriate information. The usage of search engines is certainly allowed as well. In addition, this website has a further advantage: It is used during the project week itself as various groups of students present first impressions daily. This means that every evening another group of pupils offers written texts as well as pictures online which is especially

interesting for families and friends at home. As a consequence, the project week can simply be followed from home. Such short messages are called “sticky notes”.

**Table 3:** Collected Web contents of the mashup-application

	<b>Content</b>
Links	Preselected links that lead to information pages to guarantee fast Internet research, links leading to public domain pictures
Podcasts	Collection of various relevant podcasts on the Internet. During the preparation of the project week, pupils will produce their own mp3-files. Subsequently, they will be offered as well.
Videos	Collection of numerous videos showing a range of sights in Vienna
Maps	City maps, underground map, bus- and tube schedules for preparing day trips
Timeline	Chronological history of Vienna with lots of added information
Grade 4B Grade 4C	Every evening both classes keep records of everything they experienced the whole day in the form of sticky notes, supplemented with several pictures. Parents or other people interested can follow the children's activities from home.
Timetable	Timetable and activities during the project week
Concept	Overall plan of all the lesson activities and the Vienna project week

### 3.3 mp3 – audio guides and mobile learning – [www.vocaroo.com](http://www.vocaroo.com)

The Web 2.0 tool „vocaroo“ plays a very important role for further processing. With the help of this tool students publish their research results (information sheet) digitally. Therefore each learner has to record his own article to make the written text audible. Experience has shown that articles have to be adapted concerning length. This is to say that the mp3-files should last about three to four minutes.

Produced podcasts are used in three different ways:

- Embedding in the mashup-application (embed-command)
- Embedding in the exeLearning-day trips
- Transfer of all the podcasts to mp3-capable mobile phones of the pupils. Most mobile phones offer this feature already.
- Consequently students listen to their self-produced audio guides when there are self-guided tours through the city.

### 3.4 Illustration of day trips with the help of the authoring tool exeLearningPlus – [www.exelearningplus.de](http://www.exelearningplus.de)

Another main focus during the preparation activities is the development of day trips, carried out by various groups of students. Each group, consisting of four to five learners, prepares one day trip in advance. As a matter of fact, this group guides the rest of the class through Vienna for a specific period. Various sightseeing trips (no matter if by underground, tram or on foot), information about and pictures of the visited sights, produced podcasts and

some more extra pages are published on the e learning software platform with the help of the open source authoring tool exeLearningPlus. This makes all the information available for the whole class. This collaborative way of working leads to a complete collection of multimedia-based Web content and as a matter of fact shows all the maps, schedules, texts, pictures, videos and podcasts.

Additionally, there is an integrated questionnaire for each single day of the project week. Consequently all the learners have to deal with the complete subject matter.

The screenshot displays the exeLearningPlus interface. On the left is a navigation menu for 'Projektwoche - Montag' with sub-items like 'Montag - Tagesablauf', 'Bahnfahrt: Freistadt - Linz - Wien', 'Unser Quartier', 'Route: UNO-City und Donauturm', 'UNO - City', 'Puzzle: UNO - City', 'Donauturm', 'PodCast - Donauturm', 'Route: JGH Brigittenau - Ronacher', 'Ronacher', 'Musical "Sister Act"', and 'Fragen zum Montag (Bewertung: 30)'. The main content area is titled 'Donauturm' and contains the following text:

**Donauturm**

Der Wiener Donauturm wurde von Architekt Hannes Lintl anlässlich der Wiener Internationalen Gartenschau (WIG) 1964 entworfen. Seitdem gehört er zum Wiener Stadtbild und ist zu einem beliebten Aussichtspunkt und zur Touristenattraktion geworden. Er liegt inmitten des zur Gartenschau angelegten Donauparks in Wien-Donaustadt, unweit des nördlichen Ufers der Neuen Donau.

Mit seinen 252 Metern Höhe prägt er seitdem das Stadtbild. 776 Stufen führen auf seine Aussichtsplattform, die in 150 Metern Höhe liegt. Diese kann allerdings auch über zwei Aufzüge erreicht werden, die den Mitfahrenden innerhalb von 35 Sekunden auf diese Höhe katapultieren.

Zwei Drehrestaurants in 160 und 170 Metern Höhe bieten in einen abwechslungsreichen Blick über die österreichische Bundeshauptstadt. Eine Umdrehung dauert 26, 39 oder 52 Minuten.

Durch den Donaupark der rund um den Donauturm zeitgleich errichtet wurde, kann man auch mit der Donauparkbahn fahren. Diese besitzt eine Spurweite von 381 Millimetern und verkehrt auf einem 2,6 Kilometer langen Rundkurs durch den Park.

On the right side of the main content area, there is a photograph of the Donauturm tower against a cloudy sky.

Fig. 4: Screenshot – exeLearningPlus

### 3.5 Vienna paper chase

Apart from many sightseeing tours there is a paper chase through the inner city of Vienna which the pupils have to manage. This activity consists of three elements:

- The paper chase is the main part of the game. Students have to answer questions and perform tasks enhancing their on-site experience and learning, the route is given.
- In the parallel quiz the learners need to answer questions about Austria in general and Vienna in detail. They are allowed, it is even welcome, to ask passengers for help.
- The tour also includes two geo caches (Vienna Toilet Cache, Burgtor). They are offered as a kind of extra task.

### 3.6 Safer Internet

Lots of areas of all the preparation work are closely related to the topic “Safer Internet”. The main focus of attention is on:

- Licensing of pictures
- Publishing of self-produced e-content
- Recording of videos and pictures in weblogs
- Duty of legal notice
- Mobile phones in class and on the Internet
- GPS

### 3.7 Cross-curricular teaching and how to organise it – [www.mindmeister.com](http://www.mindmeister.com)

The online-application shows an overall view of all the preparation work. Lessons have to be organised as follows:

- The following subjects are included, sometimes in the form of cross-curricular teaching: Geography, Information Technology (IT), German, History, Art
- Schedule:
  - January: Design of the Vienna brochure, „Safer Internet“
  - February: Design of the Vienna brochure, „Safer Internet“
  - March: Development of self-created audio-guides (mp3s)
  - April: Preparation of the various day trips with the help of exeLearningPlus
  - May: Vienna project week, postings
- Web 2.0-tools used:
  - Mashup: [http://www.protopage.com/wienwoche\\_marianum\\_2012](http://www.protopage.com/wienwoche_marianum_2012)
  - Concept: <http://www.mindmeister.com/de/135333633/7-5-11-5-2012>
  - LMS: <http://www4.edumoodle.at/hsmarianum/>
  - Podcasts: <http://vocaroo.com/>
  - exeLearning: <http://www.exelearning.de/>
  - Geo caching: <http://www.geocaching.at/>
  - Countdown: <http://www.jellymuffin.com/>
  - Timeline: <http://www.timerime.com/>
  - Wordcloud: <http://www.tagxedo.com/>
  - Picture puzzle: <http://www.jigsawplanet.com/>

On the website, every teacher also keeps records of his or her teaching progress. Apart from modern ways of communication, talking during breaks and discussing face to face still stay important parts of lesson planning and preparing such a project week together.

## 4 Resume

Although as teachers, we have lots of experience in connection with the preparation of such a project week to Vienna, the new way of planning and organising detailed in this paper made both pre- and while-Vienna-time especially interesting and exciting, bearing so many new elements.

The following impressions concerning planning, organising and realising the project week are left behind:

- The students dealt with the tasks set with a maximum of motivation during preparation time. They realised these tasks in a media-savvy way as they practised different working techniques beforehand. They also complemented their existing knowledge naturally. As groups were heterogeneous, each student was able to perform according to the personal capability. Nevertheless, some tasks were set corresponding to these different levels of performance.



- When preparing a project week, intensity and time frame need to be adapted to the basic conditions, otherwise a too much of dealing with the topic might turn out negatively and have demotivating effects.
- Students had a lot of fun and pleasure with listening to their self-produced audio guides on their personal mobile phones. With this method each learner had to present at least one sight. At the same time the students were able to visit the building from the outside.
- Bearing in mind that for some of the students it was the first time in Vienna, their completely independent way of guiding through the city for one day exceeded all expectations. We noticed group dynamics which were not only aimed at handling all the tasks in the best way but also handling them together. The students in their role as tour guides changed daily and could count on the unlimited support of the rest of the group.
- As the learners were confronted with the topic in such an intensive way, their level of identification with the project week was a really high one. In addition the pupils showed self-controlled and autonomous behaviour with their tasks during the project week.

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