EXpanding Content And Language Integrated Learning Through BUilding a Sustainable Future in Realtime in Immersive Environments 2021-1-FI01-KA220-SCH-000029713
Coordinator Tampere University

Laura Pihkala-Posti, Annukka Suonio, Paavo Arvola / Excalibur-project

https://webpages.tuni.fi/excalibur/wordpress/

Tampereen yliopisto

Erasmus+

Example 1

- High school science students collaborated with sister schools in Germany and the Czech Republic to create a sustainable world in Minecraft. The project focused on researching and choosing renewable energy sources, primarily solar and hydropower, while considering ecological impact and efficiency.
- Students engaged in debates, research, and collaborative learning to simulate real-world energy challenges. Hydropower was ultimately chosen as the primary energy source, with solar energy used in sun-rich areas.
- The project enhanced students' understanding of sustainability, critical thinking, and teamwork, while highlighting Minecraft's educational potential.

Example 2

- Students used Minecraft to design sustainable city solutions, focusing on areas like healthcare, energy, and infrastructure. Teams researched sustainable practices from reliable sources like National Geographic and government databases, applying their findings to virtual city planning.
- Each team had specific responsibilities, with students negotiating resource use and making decisions, such as building one public hospital and one private clinic due to budget constraints. A "Master Builder" from each team led the construction process.
- Key lessons included the importance of regular check-ins, clear role division, and managing technical challenges. The project enhanced language learning, collaboration, and sustainability understanding in an international setting.

Example 3

- Objective: High school students from Finland and Germany collaborated in a six-week project to design and build an ecological city in Minecraft, focusing on sustainable practices for key structures like a school, hospital, and sustainable restaurant.
- **Weeks 1-2:** Introduction & Research
- Introduced project goals and ecological city concepts.
- Conducted research workshops, emphasizing source evaluation for sustainable practices.
- **Weeks 3-4:** Research & Source Evaluation
- Students selected topics (e.g., sustainable restaurant) and evaluated sources with international peers.
- **Weeks 5-6:** Planning & Design
- Teams designed and built city structures in Minecraft, integrating scientific research.
- Assessed on collaboration, research integration, and final presentation.

Example 4

- High school students from Finland and Italy collaborated over six weeks to design sustainable tourism environments in Minecraft, focusing on reducing the carbon footprint of the travel industry.
- **Phases:**
- **Getting to Know Each Other:** Ice-breaker activities fostered rapport between students.
- **Research & Planning:** Finnish students led research on sustainable tourism, while Italian students focused on building creative solutions.
- **Design & Construction:** Teams built eco-friendly hotels, transportation systems, waste reduction centers, and sustainable beaches.
- **Assessment & Evaluation:** Peer evaluations and reflections focused on sustainability and collaboration.
- The project emphasized cross-border teamwork and real-world sustainability, using Minecraft as an educational tool.

Information retrieval as an essential part of the project

- Information retrieval skills are a key part of today's critical information literacy.
- •In the project, they are practiced together
- The material contains e.g. task forms to guide you in searching for information
- In addition the project leader Paavo Arvola’s *Laboratorium*-application can be implemented

SECOND ONLINE MEETING - SUPPORT QUESTIONS /unterstützende Fragen

- Using Minecraft for international school collaboration offers a unique and interactive way to explore various topics. Here's a set of discussion topics and questions focusing on sustainable Italian food, restaurants, local parks, gardens, and beach preservation, tailored for our online high school project. The questions have been devised based on the initial meeting on Zoom and answers given by the Italian students and the notes that the Finnish counterparts took during the meeting.

- Die Nutzung von Minecraft für die Zusammenarbeit in internationalen Schulen bietet eine einzigartige und interaktive Möglichkeit, verschiedene Themen zu erkunden. Hier findet ihr eine Reihe von Diskussionsthemen und Fragen, die sich auf nachhaltiges italienisches Essen, Restaurants, lokale Parks, Gärten und Strandschutz konzentrieren und auf unser Online-Highschool-Projekt zugeschnitten sind. Die Fragen wurden auf der Grundlage des ersten Treffens über Zoom und der Antworten der italienischen Schüler sowie der Notizen, die die finnischen Kommilitonen während des Treffens gemacht haben, entwickelt.

Questions 1 E

- **Sustainable Italian Food and Restaurants**
- **Culinary Pride**:
- Why do you think food and hospitality are sources of immense pride in Italian culture?
- Can you share a story or example of how food brings people together in your community?
- **Sustainability in Cuisine**:
- How do Italian restaurants incorporate local and sustainable ingredients in their dishes?
- What are some traditional Italian dishes that you think are inherently sustainable?
- **Hospitality and Culture**:
- What does hospitality mean in the Italian context, and how is it expressed through food?
- How do restaurants in Italy contribute to a sense of community and cultural identity?
- **Eco-friendly Practices**:
- Are there popular restaurants in your area that are known for their eco-friendly practices? What do they do differently?
- How do Italian restaurants handle food waste and recycling?

Questions 2 E

- **Local Parks and Environmental Improvement**
- **Park Exploration**:
- Describe the parks in your hometown. What makes them unique or special?
- What are the most popular activities in these parks?
- **Improvement and Sustainability**:
- In what ways do you think these parks could be improved to promote sustainability?
- Are there any initiatives or programs in place to maintain or enhance the green spaces in your area?
-
- **School Gardens and Sustainable Tourism**
- **Garden Description**:
- Can you describe your school's garden? What types of plants or features does it have?
- How is the garden integrated into your school curriculum or activities?
- **Gardens and Tourism**:
- How can gardens like yours promote sustainable tourism in your area?
- Are there any local garden tours or educational programs for visitors?

Questions 3 E

- **Beach Preservation**
- **Local Beaches**:
- Describe the beaches near your community. What makes them unique or important?
- How do locals and tourists enjoy these beaches?
- **Preservation Efforts**:
- What are the current challenges in preserving these beaches?
- Can you share any successful preservation projects or initiatives that have been implemented locally?

EXCALIBUR-Network for CLIL LEARNING IN IMMERSIVE 3D-SANDBOX-GAMEWORLDS

https://webpages.tuni.fi/excalibur/wordpress/

https://www.friedrich-verlag.de/friedrich-plus/schule-paedagogik/digitale-schule/tools/in-der-virtuellen-welt-die-reale-welt-retten-lernen-12664?fbclid=IwAR3BOEY2nQH8ZYf2M9nfJe4nWYEVd7ZqRp5xGtKJ28a5DIskhPMx1jfHmgw

https://www.excalibur-project.eu/project-result-presentations/

Co-funded by the
Erasmus+ Programme
of the European Union

EXCALIBUR
Erasmus+

Thank you very much for your interest!!!

Contact:
excalibur.project[at]outlook.com

Annukka Suonio, Tampere
Laura Pihkala-Posti, Tampere
Paavo Arvola Tampere
Beate Lindemann, Tromsø (UiT Norges arktiske universitet)

Tampereen yliopisto