

4. Website Development

As part of the project team, I was responsible for the complete development of the official project website. This included all stages of work: planning, design, and coding. The website was built using GitHub Pages, which is a free platform for hosting open-source projects online. The site includes all puzzle designs, game rules, detailed project documentation, and team information [4].

The documentation covers the full puzzle structure, testing results from the Linz playtesting session, and the complete design process. This was done to make it easy for other teachers or event organizers to reproduce and run the escape room themselves. The website also includes answer-checking pages for each of the five teams, so students can verify their solutions after the game.

Conclusions

The Steampunk Mystery Lab is an effective and creative tool for teaching data visualization skills to teenagers. It covers five key chart types - bar chart, network diagram, bubble chart, heatmap, and line chart - through real physical puzzles with a strong narrative. The game was developed during Erasmus+ academic mobility at the University of Applied Sciences St. Pölten, Austria, and was successfully tested with real students in Linz. The open-source website makes the project available for any school or educational event. Future work could include developing the two remaining puzzle concepts and creating a digital version of the escape room.

References

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BREAKOUT LEARNING AS A TOOL FOR OVERCOMING LANGUAGE BARRIERS IN THE U.S.-UKRAINE BUSINESS COMMUNICATION & CULTURE EXCHANGE COIL PROJECT

Anna HANZHUGA,
student of the Computer Engineering Department
Group 1KI-24
Cherkasy State Business College,

Research Advisor: PhD in Education, Associate Professor Iryna IVANOVA,
Cherkasy State Business College, Cherkasy

In today's globalized educational landscape, international collaborative online international learning (COIL) projects are becoming an effective tool for developing students' cross-cultural competencies. At the same time, one of the key challenges of such projects remains the language barrier, especially in asymmetric language teams, where English is the native language for some

participants and a foreign language for others. As part of the U.S.-Ukraine Business Communication & Culture Exchange project, implemented in collaboration with Baylor University (Texas, USA), Ukrainian students faced this very challenge.

The purpose of this paper is to analyze the impact of the Breakout Learning platform on overcoming the language barrier and improving the quality of academic communication within the context of a Ukrainian-American COIL project.

Breakout Learning is an educational platform based on the Harvard Business School's case study methodology. The platform organizes learning by immersing students in real-world business situations, where they analyze problems, express their positions, and engage in discussions in an English-language environment. After each discussion, the system generates detailed, personalized feedback on critical thinking, argumentation, and peer interaction.

In the context of the project with Baylor University, Breakout Learning performed several key functions. First, the platform created a structured English-language environment for practicing academic discourse, where students learned to formulate positions, provide evidence, and respond to their peers' arguments. Second, the platform's automated feedback allowed students to identify specific gaps in their language and communication skills, specifically, their level of engagement in the discussion (Peer Engagement) and the quality of their reasoned positions (Reasoned Position & Evidence). Third, systematic review of the assessments helped students recognize the difference between the native-speaker confidence of American participants and their own communication strategies.

Analysis of the feedback revealed that the language barrier manifested not only in grammatical or lexical errors, but primarily in participation style: Ukrainian students more often made brief, independent statements instead of engaging in extended dialogue, and were less likely to address partners by name or ask clarifying questions. The platform clearly identified these patterns and suggested specific strategies for improvement: using phrases such as "Adding to [name]'s point..." or "Expanding on the idea expressed..." which directly correspond to the academic discourse of an English-speaking university.

Importantly, Breakout Learning's feedback covered not only the linguistic but also the cognitive dimension: it assessed how well students applied the course's conceptual framework to real-world situations, compared entrepreneurial environments in Ukraine and Texas, and analyzed formal and informal institutional factors. This allowed students to see their progress not only in terms of language but also in the development of analytical thinking—which, in turn, increased their motivation for English-language communication.

Thus, Breakout Learning proved to be an effective tool for overcoming the language barrier precisely due to the synthesis of three factors: practical immersion in authentic academic discourse, personalized analytical feedback, and systematic tracking of the dynamics of communicative behavior. The experience of the U.S.-Ukraine Business Communication & Culture Exchange project confirms the feasibility of using such platforms in COIL formats, where participants' varying language proficiency levels require support from technological solutions.

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