



Learning Through Operation LAPIS— A GAME-BASED APPROACH TO THE LANGUAGE CLASSROOM

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Original artwork from the Operation LAPIS interactive adventure in Latin. Learn more online at www.practomime.com.

It is a hot Italian summer day. You are standing near the slopes of a rather ominous mountain looming over the bay of Naples. Near the road on which you are standing is an olive tree. There is a boy in the tree and a rather unfriendly man at the base, searching around for someone or something . . .

Welcome to *Operation LAPIS*, a two-year, interactive adventure in which Latin language learners tell the story of their learning through the eyes of an ancient Roman.

While many popular Latin textbooks include a story framework involving important figures and events, *Operation LAPIS* is an interactive adventure through which learners use performance to develop and assess their growing skills in speech, reading, translation, and comprehension. Though viewed as a game, it might more be accurately called a collaborative narrative grounded in experiential, project-based, and anchored learning—that is, a shared tale in which students learn the language by role-playing as Romans.

Exploring Operation LAPIS

The program is divided into a series of 174 unique immersions that take student-controlled characters (Recentii) across the Roman world, beginning on the outskirts of Pompeii and ending in Rome at the height of

the empire's strength, navigating between the forces of traditional authority and throngs of rising populists. These immersions are equivalent to a two-year introductory Latin curriculum and cover the same content standards that underpin a wide variety of Latin textbooks (e.g., *Cambridge Latin Course*, *Oxford Latin Course*, *Ecce Romani*). Taken together, they replace a traditional textbook format with a complete social–collaborative, responsive learning environment that helps students reach first- and second-year Latin objectives at the high school and college levels. These objectives include reading and writing in Latin; identifying key products, practices, and perspectives of Roman culture; and summarizing key events of Roman history.

To reach these objectives, the program employs some of the most compelling and valuable aspects of modern digital games (e.g., role-playing in an imaginary world, collecting, leveling, questing) in service of increasing accessibility and engagement. As



students progress toward the story's conclusion, these components help them foster the skills necessary to read, speak, and conduct context-relevant interpretations of historical events. Crucially, the students also come to understand why their learning matters and how it can be used to save civilization through collaborative problem solving in their own communities.

What Makes Operation LAPIS Work?

The educational psychology community has spent more than 30 years emphasizing the

importance of environment/learner/content interactions for understanding how people behave in the real world. For language teachers, these connections underscore the need for instructional scaffolding built around the grammatical structures, organization, and verbal intricacies of language in the classroom as well as the authentic cultural contexts in which they are used. This inherent structure–function duality is what makes optimizing transfer (i.e., the way learning and action in one context affects learning and action in a related context) the primary development goal for *Operation LAPIS*.

To fulfill that goal, *Operation LAPIS* is set between two free web-based educational interfaces, Edmodo (www.edmodo.com) and Google Drive (<https://drive.google.com>), which together form something akin to a traditional Internet forum mixed with a social networking platform. Students access the sites through a standard web browser and use them to interact with the adventure, their teacher, and one another. These interactions happen in a number of ways, including:

1. Collaboratively deciding who will be responsible for specific group tasks;
2. Utilizing the target language to narrate in-game actions (e.g., eating at a Roman dinner);
3. Using character avatars to respond to other groups; and
4. Receiving and replying to in-the-moment teacher feedback regarding quality of research, language use, critical thinking, and problem solving.

As each subsequent immersion guides student communication and action, the learning process shifts away from the teacher and toward the students. Self-study using the CODEX (i.e., a set of web pages that contain all of the material traditionally included in a language textbook) leads to greater individual accountability, stronger intra- and intergroup collaboration, and opportunities for the teacher to focus on deconstruction, analysis, and discussion rather than direct instruction. The CODEX, then, serves as a transformation of the textbook into a student-centered learning tool. This

prompts students to work toward individual goals cleverly seeded into the story from the very start, thus moving content ownership from instructor to learner under the guise of increased student agency.

Operation LAPIS in the Classroom

At the beginning of the school year, the instructor introduces himself or herself as an agent working under the guidance of a shadowy figure called the “Demiurge.” It is quickly revealed that the Demiurge has founded an organization, Mission Control, with the express goal of saving civilization by having students role-play in an imaginary world, collect materials pertinent to their overarching mission, gain experience by solving unique problems, and embark on a series of epic quests alongside legendary figures from Roman history. To accomplish these goals, the students are told they will enter a text-based simulation where they will work to find and decipher an inscription on the legendary *LAPIS SAECULORUM* (the Stone of the Ages) by developing the skills necessary to preserve the values of the ancient world in contemporary Western culture.

The program’s dual-functioning instructor–agent (i.e., teacher) separates the new operatives (or students) into teams that share control of a young person of the family *Recentia*. Over the course of the mission, they deliberate to determine what their *Recentia* or *Recentia* will do in response to each unfolding episode, shaping in-game events based on the socially constructed responses they provide to the instructor and their peers through Google Drive and Edmodo. They further attune themselves to the simulation by honing their proficiency in Latin reading comprehension, exercise completion, morphological form and grammatical construction collection, and basic research through the custom-made CODEX. This ultimately encourages language fluency and serves as a foundation for 21st century skills (e.g., research methods, self-study, technological proficiency, social competency) rooted in original, student-generated content. More than a supplement to the curriculum, this is a holistic platform that blends the best of Latin pedagogy, education-

al psychology, and, most importantly, learning goals into a powerful vehicle for the 5 Cs of the Standards for Learning Languages (Communication, Cultures, Connections, Comparisons, and Communities).

Assessment in Operation LAPIS

With the Standards for Learning Languages, the Common Core State Standards, and other benchmark requirements at the state and local level, many teachers remain unsure how to make these various objectives fit together. Further complicating matters are district-mandated initiatives that require added emphasis on 21st century skills, such as creativity, critical thinking, and problem solving.

Many of these standards, including the 5 Cs and Common Core, have been implicitly integrated into *Operation LAPIS* in a way that permits instructors to simultaneously introduce relevant 21st century skills, meet state and local goals, and maintain a controlled classroom environment governed by continuous, embedded, formative assessment. This feat is achieved through a unique Operative Dossier system that serves as a dynamic, individualized report card shared between the teacher and students. As the instructor enters a numerical score for a particular immersion session, he or she is also able to leave pointed feedback that the student can immediately access and apply toward the following immersion. Unlike traditional assessment measures, this information is securely stored in an encrypted spreadsheet and, above all, can be used to mark student growth over a period of more than two years.

The integration of embedded student collaboration, a responsive immersion structure, and granular Operative Dossier system enables teachers to track student progress toward fulfilling the 5 Cs with greater specificity than afforded by other Latin language programs. While the goal areas of Communication and Cultures may be fairly straightforward to teach and assess in a typical language classroom environment, Connections and Comparisons are less frequently used as the foundation for formal evaluation. Similarly, Communities remains the most challenging goal area that teachers may acknowledge but rarely have the freedom to explore. *Operation LAPIS*, how-

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—George E. Merritt

ever, automatically builds toward all five of these goals by requiring students to think, act, read, write, and speak like ancient Romans such that the instructor can directly observe, respond to, guide, and continue tracking performance. This means that the Communities standards are organized as a central aspect of the language course while Comparisons and Connections standards are emphasized in personal, meaningful situations rather than extraneous, impoverished contexts that fail to connect with the real world.

Overall, the program’s alignment with commonly accepted standards gives it the potential to improve the way language educators design and evaluate their courses. *Operation LAPIS*, like authentic language immersion, places students in a position where reading, writing, and understanding are paramount to completing even the most basic activities. This presents the teacher with ideal conditions for leveraging student language learning into the growth of a teacher-guided community of practice, moving away from a sole focus on grammar and vocabulary to the much broader picture of how language functions in a rich social context.

A New Model for Language Instruction

Providing opportunities for students to construct their own learning serves as a strong foundation for transfer and gives instructors a chance to supply feedback at critical moments—the exact type of “just in time” instruction that can make or break a learning experience. The instructional model used to construct *Operation LAPIS* (i.e., the dual alternate reality game/role-playing game foundation) gives it great potential for fostering the critical thinking, problem solving, and reflection needed for language educators to adhere to tried-and-true learning theory while simultaneously moving students to-

ward 21st century skill development needed in an increasingly globalized world.

As teacher George E. Merritt (Brother Martin High School, New Orleans, LA) says:

Operation LAPIS has the distinct advantage of combining the best aspects of the flipped classroom, student-centered, and game-based learning. Students engage with the rich culture and history of the Ancient Romans. *LAPIS* encourages students to delve into a deeper understanding of the culture while respecting the language and the source materials, but in a setting laced with history, mystery, magic, and myth. By rewarding accomplishment and risk instead of penalizing lack of understanding or preparation, *LAPIS* brings a joy back to learning that can be lost when bogged down in the nuance of the grammar. I am in my first year as an Agent and seventh year teaching with Wheelock, and although I haven’t yet seen [the year’s conclusion], I can see the learning happening. I may even abandon my textbook, *Mirabile dictu!*

Adds Franz Gruber (Columbus Academy, Gahanna, OH):

LAPIS stands out as a resource for Latin instructors as it encourages collaboration and creativity on a daily basis to an extent that I have so far (in my 20+ years of teaching) only seen once a quarter when I assign quarter projects. I had a similar experience 10 years ago when I decided to bring our school back to the [National Junior Classical League] and attend the annual conventions, but there it is mainly the creative aspect that makes these conventions so special. With *Operation LAPIS*, students collaborate and problem-solve with every response to a prompt.

As a performance-driven program that directly tackles transfer, collaborative problem solving, and allows students to showcase their learning, *Operation LAPIS* may be able to provide all content areas with the necessary foundation to build new student-centered adventures for language learning.

The Spanish Civil War? The Fukushima, Japan earthquake, tsunami, and nuclear crisis? The Bolshevik Revolution? Perhaps locating the Holy Grail or helping to implement the Navajo Code? Whether in Latin, Spanish, French, or any other language, transforming learning into an active, collaborative process can serve to create a richer, more meaningful learning experience for language students. That’s the power of an approach like *Operation LAPIS*: coalescing story-telling, course content, and 21st century skills to help students transform their learning through the power of imagination.

For more information on how to join the adventure, please visit www.practomime.com.

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