Red Flag Mania (RFM) harnesses the power of active learning and digital storytelling to create an engaging, immersive learner experience. Its investigative activities deliver gamified learning, which the Online Learning Consortium (OLC) and the National Research Center for Distance Education and Technological Advancements (DETA) identified as a top digital learning innovation in 2020. The educational experience is improved by fusing the appeal of digital games with a meaningful and relevant scenario.

The model on the next page highlights the key components of RFM: who uses it, how it is used, and its impact.
Red Flag Mania Logic Model

**Inputs**

Who are the stakeholders?
- Learners (students, employees)
- Educators (faculty, administrators, managers)

What are the components of RFM?
- Game-based multimedia learning experience
- Game-play provides learners opportunities to apply domain knowledge and explore how knowledge functions in an investigative experience
- Content aligns with classroom- or organization-specific curriculum
- Gives learners opportunity to explore content at own pace

**Activities**

What are the processes the stakeholders are engaging in?

Learners:
- Complete module in 2–8 hours at own pace
- Apply problem-solving skills to integrate evidence with previous knowledge
- Engage with multimedia content
- Flag knowledge to serve as evidence

**Outputs**

What is the immediate impact related to completion of the RFM module?

Learners:
- Increased engagement with course/content
- Increased retention of course content
- Understand connections between theoretical concepts and concrete evidence

Educators:
- Improved ability to differentiate instruction and incorporate into current classroom

**Impact**

What is the long-term impact of RFM?

Learners:
- Improved critical thinking and problem-solving skills (e.g., synthesize ideas, create new knowledge, challenge preconceived notions)
- Increased domain literacy
- Increased curiosity in domain knowledge

Educators:
- Provide different medium of education that appeals to varying learning modalities.
RFM provides a digital investigative case experience that surpasses traditional case studies and simulations. RFM uses this novel educational platform to increase learning and human connection through the following outcomes:

1. Increases learners’ engagement by implementing multimedia content that aligns with the principles of digital storytelling and multimedia learning;

2. Encourages learners to utilize critical thinking and problem-solving skills, which are essential expectations of problem-based learning;

3. Requires learners to pace themselves throughout the learning experience, and apply theories of self-directed learning.

Multimedia Content

The RFM immersive experience employs several principles of Mayer’s cognitive theory of multimedia learning and Lambert’s principles of digital storytelling. Through the integration of multimedia content (e.g., profiles of suspects, videos of the case, documents as evidence), RFM activities create engaging, emotionally-rich stories. Film-quality video adds depth and cements learner investment and involvement in the activities. As one RFM educator remarked, “Students were blown away by how realistic it was. They loved the variety of evidence and the realism of film.”

The wide range of content caters to a variety of learning modalities which support differences in acquiring, interpreting, and organizing information. RFM learners employ an array of cognitive, organizational, and interpersonal skills to interpret the content and achieve learning goals for the activity.

Problem-Based Learning

RFM activities start with a case that needs solving, which aligns with a fundamental principle of problem-based learning. As learners progress through each activity, they can annotate or “red flag” pieces of knowledge/data as evidence. “Flagging,” a core feature of RFM, allows the learner to extract and identify essential knowledge to solve the case.

Additionally, red flagging promotes more active engagement and critical thinking since learners continuously decide if they can use a particular piece of evidence in their investigation. As learners examine evidence, they may ask themselves questions such as, “How does information from one document apply to evidence found in another document? Does this information point to one person as a likely suspect, or does it contradict current assumptions?”

The RFM case-based scenario also contributes to the active learning environment, as the activities specifically require learners to apply learned theories and concepts to a real-world scenario. RFM Season One: When We Prey focuses on business ethics, auditing, forensic accounting, and fraud. In fact, true-crime events inspire RFM cases, showing learners how situations affect real people and giving them the opportunity to better understand how classroom concepts can be applied in a real-world scenario.

Self-Directed Learning Experience

The self-directed nature of the RFM learner experience further enhances the knowledge and learning skills gained through completing RFM activities. Brockett and Hmiesstra state that self-directed learning enables learners to personally identify what knowledge must be incorporated into finding the solution, rather than following along with prescribed rules set by an instructor or manager. Learners fully engage with the platform as they direct themselves through the investigation and hunt for clues.

“It was like playing a game. It was like professional Clue... [the students] enjoyed the competition element.”
—Project Manager, Big Four Accounting Firm
Vision for the Future

The RFM learning model will continue to teach students how to learn and how to apply their learning in a rapidly advancing world. Greater personalized learning experiences will strengthen fundamental critical thinking and essential problem-solving skills as the RFM products evolve and grow.

While the aforementioned learning science principles ground RFM, advances in these fields present new opportunities for the enhancement and extension of its learning relevance beyond its current scope.

New Content. RFM Season 2: When We Heal focuses on the health sciences domain. Feedback from educators and learners alike drove this new subject area focus. RFM strives to keep up with life-long learners and the evolution of the world around us. As such, future episodes will tap into industry specific stories to provide a deeper, more engaging learner experience regardless of the field of study.

Course Replacement. RFM learning experiences supplement postsecondary courses. Faculty members integrate RFM as an interactive in-class or out-of-class assignment. In the future, RFM will evolve to replace the traditional textbook and include activities and readings that could be delivered as a standalone, self-directed course.

Technological Advancement. The following two technological advances will appear on the RFM platform:

- **Collaborative learning experience.** Learning is a social endeavor\(^\text{15}\), so future RFM seasons will include collaborative investigations for social peer learning—sharing information, asking questions, and building shared solutions. RFM’s “teams” feature will allow learners to work with their peers on solving the case. Giving learners the opportunity to become effective collaborators also fulfills a core component of problem-based learning\(^\text{10}\): enhancing the development of critical analysis and problem-solving skills.

- **More content-learner interactivity.** AI and machine learning present opportunities for the RFM to become a deeper interactive learner experience. In the future, learners will be able to “interrogate” RFM characters—asking them questions in a virtual “live” question and answer format.

Summary

As the demand for instructional and learning technologies continues to increase in higher education, and as more institutions and organizations transition to digital learning platforms, so too will the need for innovative products that both teach content and maintain engagement. The RFM platform helps meet this need through its gamified, case-based learning platform. RFM is a broad, theory-based curriculum with multidisciplinary applications and provides all learners with an exciting, immersive experience that connects core competencies with technical skills.

“In the real world everything is not handed to you... Students actually have to do some discovery to figure out who they should go after.”
—Professor of Accountancy, Northern Illinois University

“Red Flag Mania allows students to utilize critical thinking to engage in a scenario that is an actual true case. It moves the conversation from the What to the Why and the How. There is nothing else on the market that does what RFM does.”
—Accounting Instructor, University of Calgary
References


