Ruby Rei: How to make an adventure video game to learn languages

Truan Flynn

Wibbu Studios. London, UK.

Learning is an active process. Goals are set. Achievements are unlocked. Progress is made. So it isn't a huge leap to marry the worlds of education and gaming as one successful and fulfilling experience. Wibbu's play-based learning system pulls down the learning barriers that are outlined in Stephen Krashen's Affective Filter hypothesis. Krashen posited that the more a learner is stressed, embarrassed, or bored, the more demotivated they will become. How do you overcome the affective filter? Make learning an adventure!

We've created a system with our language-learning video game, *Ruby Rei*, where players are totally engaged in a story and characters. We distract our students into absorbing information that benefits their progress.

Ruby explores all kinds of amazing places. (Screenshot of the game.)

Players join Ruby as she crash-lands on a forgotten planet at the edge of the universe. Embarking on an education epic to save her friends and return home, Ruby works on her communication skills as she meets meek monsters, awkward aliens, and a less-than-helpful lizard sidekick.

Ruby Rei's learning system is built around play-based, immersive language exploration. Students learn with Ruby! She visits, she catalogues, and she communicates. Through the technique of incidental learning, players absorb lessons through story points, and acquire language through character interaction.

Before our games can teach a language, a fictional world has to be created that can support the narrative. Any sci-fi or fantasy writer will tell you that world building is an immensely fun and satisfying process. The details of character, place, and motivation are what make a story come alive. And the key to building a story for players to live in for extended periods, is in creating situations that grab hold of the imagination. With *Ruby Rei* we make story foundations that allow players to dream and create their own stories.

Once a script has been written, each scene, sentence and word is then analysed by our team of linguists and teachers. Grammar points are highlighted, teachable moments are extracted, potentially confusing situations are refined and the script gets better and better. This can be a lengthy editing process, but it results in a game that maintains the integrity of the characters but is confident in its ability to teach.

There is no better place to learn new stuff than a *bosque sagrado*. (Screenshot of the game.)

Our game designers then create interactive puzzles that draw the player into a cycle of challenge and reward. We approach each 'lesson' with unconventional goals. Instead of learning a number of nouns and verbs, the primary aim may be to find a spaceship. Instead of learning a new grammatical structure, the desire may be to rescue a friend in danger. Creating these primary desires in a player that distract from the subconscious learning is what makes a successful educational video game work.

When *Ruby Rei* was independently tested in schools in July 2017, it was found to improve pupil motivation and engagement four times more than the comparative resources. Over the course of a week, children elected to play the game four times longer, immersed in the story, and having fun as they learnt!

So we can recommend from experience the power of play-based education for building confidence, reducing embarrassment, and creating a safe environment for children to lose themselves in learning. Suddenly, a thing that might have elicited feelings of dread is now a pupil's favourite lesson!

REFERENCES

Krashen, S.D. (1982) Principles and Practice in Second Language Acquisition. Pergamon Press, Oxford.

Krashen, S.D. (2003) Explorations in Language Acquisition and Use: The Taipei Lectures. Heinemann, Portsmouth.

ABOUT THE AUTHOR

Truan Flynn is a graduate of the University of Brighton, UK. He is the educational writer for Wibbu Studios and believes that the best learning is powered by imagination. His life and work is powered by the motto, "what would Batman do?"