

DEFCON: EVERYBODY DIES

Introduction

Anyone who has mastered a skill was once a beginner. The same is true with video games. While there is a partial overlap in the controls and mechanics of certain games, any player, novice or veteran, must learn the game in order to truly excel at it. A quality game evokes a sense of satisfaction while played. It must be both challenging and achievable for a player to reap the greatest enjoyment. The purpose of this paper is to focus on how a particular game, DEFCON: Everybody Dies, is made achievable through the use of effective learning principles.

The game will be analyzed to determine whether it promotes effective learning principles as outlined by Gee in “Learning by Design” (2005). A superb learning experience would help the player 1) develop the skills needed to excel in the game and 2) find satisfaction in completing the challenges presented.

A game that lacks effective learning principles would leave the player ill-prepared for obstacles and without an understanding of game mechanics, or lack motivation for the player to learn the game at all. Simply put, if you don’t learn the game well, you can’t play the game well. If you can’t play the game well, you’re less likely to succeed. If you don’t succeed, you won’t have an enjoyable experience.

Methods and Organizational Plan Of The Essay

DEFCON is a simulation of global nuclear war. You are the commander of a nuclear-armed country and must play through the tension, paranoia, and suspicion of possible nuclear war. I chose DEFCON for several reasons. First, it was on sale through the Steam online platform. Second, I study international relations with an emphasis on game theory and thought

this game would be a good application of its concepts. Third and most importantly, I have no idea how the game is played. Since I've played so many genres of games in the past, I run the risk of not noticing certain elements. In other words, I am habituated to video games and might miss something.

I played for a little over 1 hour to judge the game's use of Gee's learning principles (*See Gee, 2005*). My analysis draws from playing the entire tutorial and one single player game. I made highly detailed notes of everything I saw and heard, however minor, to keep the analysis objective. While the experience was still fresh in my mind, I went through each of Gee's Learning principles to consider how well DEFCON used them. The first section of the paper details what principles are performed well and promote a quality learning experience. The second section details which principles are either absent or poorly executed; thus failing to promote a quality learning experience.

I argue that, although DEFCON is oversimplified, unchallenging, and has low replay value, it is a model for its peers by using an intuitive tutorial structure and maintaining a sense of purpose.

What makes DEFCON an excellent learning experience?

War games have been around since at least the 5th Century B.C., when the ancient Greeks played a game called "petteia." The weapons and tactics may not have been advanced, but their purpose was still a learning tool. As new technologies developed, the simulations could be more accurate and represent new weapons (Homans, 2011). DEFCON represents a simplified computer simulation of nuclear war.

The experience of DEFCON starts with the player at a "terminal" style screen reminiscent of early computers and military hardware. The emphasis is on simplicity and clarity;

with high contrast green font over a solid black background. A green, wire-edged globe spins in the background to evoke the massive scale of conflict that will soon unfold. The font is in all capital letters with some flipped backwards from left to right. This clever trick keeps the text readable, but makes the characters look oddly Cyrillic, the style used for the Russian alphabet. No game on nuclear war would be complete without Russia. A ticker is running vertically on the left side of the screen and delivers various information: US nuclear bombs, their explosive yield, and their codenames; the various symptoms of radiation sickness at different levels; nuclear isotopes, their half-life, and their atomic symbol (See Figure 1, you can zoom in to read the text). Each text appears with an audible beep, similar to a spy movie showing a new scene with the text “Prague, Czech Republic. 2250 hours. Agent James Bourne.” In the background I can hear both a generator running and a woman sobbing with dry coughs intermixed. All of these little features meld together to create an intense atmosphere of nuclear military confrontation.



Figure 1; DEFCON: Everybody Dies (2006)

That is the first screen for DEFCON. We can already see how deftly each element adds to the context of your “Identity,” the first strength of DEFCON’s learning process (Gee, 2005). You are the commander of a nuclear-armed state on the brink of all-out war. While you have no name or voice, the player is open to imagine their character however they wish. In this new identity, a deep and extended learning experience can begin. In the single player game I was assigned the territory of Western Europe. To keep my experience historically accurate, I became “Margaret Thatcher.” Since the game can assign you to any part of the globe, Boris Yeltsin, Mao Zedong, and John F. Kennedy are appropriate as well. You could even become a criminal mastermind and play as Dr. Strangelove. The point is that leaving the identity open for interpretation allows players to play as a personality they see fit, which invests them in the learning experience.

With your identity defined, the players can now turn to the tutorial. It is structured as 7 chapters that use five principles of learning exceedingly well. The first 6 chapters are “Fishtanks” (Gee, 2005). They put the player into simplified versions of the game so as to not overwhelm them. Within the fishtanks, players can separately learn different facets of the overall experience. For DEFCON, this means the player will progressively learn how to fire nukes, place units, control navies, schedule bombing runs, and defend themselves. Each chapter builds on the previous ones in a series of “Well-Ordered Problems.” Each chapter elegantly builds in complexity with just the right amount of hand-holding. The mechanics of the game are introduced at a steady learning pace. More technically, the problems that are presented early in the tutorial will lead the player to make excellent guesses at later ones. With each chapter, assumptions are relaxed and options are opened up to encourage learning progress.

The 7th chapter combines all of those facets into a “Sandbox,” a simplified simulation of the real game (Gee, 2005). It lacks the heavy risk that would be present in the full game, giving

the player room to practice without being a killjoy if they mess up. Consider it as a step that is more complex than a fishtank, but less risky than the actual game. DEFCON's masterful use of these learning principles makes learning the features of the game nearly effortless. Upon completion of the tutorial, the player feels accomplished and empowered, ready to take on the world.

I've discussed the larger structure of *what* the tutorial does and will now describe *how* it encourages learning at a more interactive level. Put simply, playing DEFCON is fluid and intuitive. It is a beautiful display of Gee's principle of "Manipulation and Shared Knowledge." You don't need a deep understanding of keyboard shortcuts or savant-level mouse accuracy. Even with just the mouse, the player's desires are effectively translated into actions in the game. For example, consider navigating the map. DEFCON skillfully uses same control scheme as Google Maps. Actions like zooming, panning, or click-and-drag are not only fluid and responsive, but something that people already know. Sticking to this more universal style allows people to transfer their previous skills to a new game and speed the learning curve.

After learning to scan the map, the first chapter tasks the player with deploying nukes (*Figure 2*). The next question a player would have is "What button do I push?" DEFCON has not one, but two great ways of displaying the answer for this "Information On Demand And Just In Time" (Gee, 2005). *Figure 3* shows the gold pop-up box which tells you to left-click to launch a nuke. If you don't know what left-click means, it also displays a small mouse with the left button highlighted in red. Now the player might think, "Where should I launch the nukes?" Immediately, a pulsating gold circle highlights where to launch the nukes. These excellent elements continue throughout the tutorial to orchestrate your actions.



Figure 2; DEFCON: Everybody Dies (2006)



Figure 3; DEFCON: Everybody Dies (2006)

Developing the purpose of your actions and skills is another part of DEFCON’s learning process. I started with an identity, but through the tutorial added a system, skills, and meaning to my actions. My end goal is to kill citizens of the enemy while protecting my own. Everything I learned about DEFCON was directly supporting that goal. They were each “Skills as Strategy.” With the end goal in mind, I had a purpose for practicing. My actions were given a meaning

outside of themselves. This structuring of skills developed a way of “System Thinking,” whereas I considered each additional skill as another tool in a toolbox; a toolbox to help me kill enemy citizens and protect my own (Gee, 2005).

How could DEFCON improve?

DEFCON is not a perfect learning experience. There are two areas in which the game could be improved: lack of difficulty and replay value. I stated earlier that a game must be both challenging and achievable for a player to reap the greatest enjoyment. DEFCON is certainly achievable, but is not difficult enough to be considered “Pleasantly Frustrating” (Gee, 2005). For example, after the tutorial I played a standard single player game against 2 computer opponents. It was my first time playing and I used a simple strategy of spreading my forces evenly and then unleashing my entire nuclear arsenal in a single blow. I wiped out the majority of my enemies’ cities and military capabilities in the first strike. At the end of the game, I had at least double of both of their scores. Given how easy it was to win, I don’t have an incentive to play again for an enjoyable time. There may be more advanced strategies to learn, but the success was too easily achieved. I checked for a difficulty level adjustment afterwards and could not find one.

Since my strategy worked from the start, I was never forced to develop a new one. Ideally, a game will break the player’s current strategy a few times. This forces the player to rethink their actions through “Cycles of Expertise” (Gee, 2005). Perhaps they could give certain enemies special traits or have certain areas of the map grant bonuses. In its defense, DEFCON does have several additional game modes in the main menu. These could possibly encourage different play styles and several cycles of expertise if explored thoroughly.

Additionally, DEFCON has a lack of options to “Customize” the experience (Gee, 2005). There was some room for the player to choose where units go and what they do. Certain units such as the naval fleets can be customized for ship types and fighting modes. However, on the whole it feels too simplified. There was only one win condition and a narrowly-defined point system. There are no ways for me to upgrade my defenses, develop units with new powers, or choose different missile types. The experience would be greatly expanded if the player had to set up nuclear facilities first and make decision about what nuclear isotopes to use, how to weaponize them, and how to deliver the payloads. These options would give the player more ways to achieve victory. Again, the additional single player modes may expand on this a bit.

Finally, DEFCON exists only within a legacy of a Cold-War. The mentality it fosters is rather outdated to be used as a learning tool for the current geopolitical climate (Cagle, 2010). For a more contemporary learning tool, I suggest the episodic games from KUMA, LLC. It crafts what it calls Reality Games, the most recent one titled “Attack on Iran.” It contains expert analysis and a deep discussion of the political consequences of military action. Their simulations address the desires of regular people who want to experience firsthand how military planners think about such an attack (New Video Game...., 2005).

Conclusion

A great game should have a learning process that helps the player 1) develop the skills needed to excel in the game and 2) find satisfaction in completing the challenges presented. DEFCON deftly delivers on the first point yet slips in delivering the second. The game’s intuitive tutorial structure and the purpose of the experience are a model for its peers. However, the game lacks a deep and lasting satisfaction that would encourage the player to play multiple

times and learn advanced strategies. Future games could benefit greatly from the methods employed by DEFCON's tutorial system.

For the players, DEFCON works best as a gateway for players to enjoy more advanced real-time strategy games such as Supreme Commander, StarCraft, or Command & Conquer. DEFCON's openness to mods may also lead to a better experience given some time. The gameplay could be expanded with some dedicated players who, like me, see DEFCON for its potential rather than its faults.

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