

Chapter 5

DAU CardSim: Paper Prototyping an Acquisitions Card Game

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ABSTRACT

This chapter discusses DAU CardSim, a multiplayer card game for teaching defense acquisition strategies, and addresses the challenges in moving from a paper prototype of the game to a digital version. This post-mortem will break down the requirements and elements that went into the DAU CardSim design and the decision to adopt a card game system. The rapid development process used varying levels of simple prototypes for initial design and playtesting, as well as game balance and refinement. The culmination of the design process involved converting the physical card game to a digital version. This presented challenges in creation but lacked many of the inherent problems of developing a digital system from the ground up by streamlining the development cycle.

INTRODUCTION

DAU CardSim

An instance of UCF's CardSim card game framework, DAU CardSim is a multiplayer scenario-based card game designed to reinforce acquisitions skills and teamwork. A group of two to six players take on one or more acquisition team Roles such as

Project Manager, Contracting Officer, or Systems Engineering lead. The players collaborate to most efficiently apply their knowledge, skills, and abilities (KSAs) toward a real world acquisition scenario while tackling various obstacles that arise during the course of the project.

Each game is played with one Scenario selected from the available Scenario deck. Scenarios have one or more possible solutions that introduce different completion requirements (varying numbers of required KSAs) and a limited number of allowed

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Figure 1. The major types of DAU CardSim cards



play rounds. In addition to the Scenarios, the game consists of several different color-coded card types that represent the players' Roles and KSAs (see Figure 1):

- Role cards (purple) – There are six of these, and players may take on one or more depending on the number of available players. These are used to identify players' team positions and to mitigate some obstacles.
- KSA cards – These are used to complete Scenario requirements and mitigate obstacles. They come in three different varieties and can be general or specific.
 - Experience (yellow) – These represent players' experience both in their overall field and in their specific role.
- Course Levels – These are a special variety of Experience card and represent education in the player's field at three levels: 200, 300 and 400 level courses. When used on a player's Role, this card grants the player additional moves each turn (i.e. the player can play two, three or four cards per turn rather than one).
 - Additional Resources (green) – These represent resources such as funding and personnel.
 - Specialty (blue) – These represent knowledge in specialized areas, such as Long-Term Contractual Management or Arbitration.
- Obstacles (red) – These represent project interrupters of varying difficulty and can be mitigated by specific KSA cards, multiple generic KSA cards and/or relevant Role cards. Obstacles come in two varieties:
 - Programmatic – These are general project changes or events, such as Funding Cuts. Players must divert some of their KSAs from the Scenario to address these obstacles.
 - Ethical – These are ethical conflicts or violations committed by team members, such as Nondisclosure violations. All ethical situations are prepared as resolved correctly or incorrectly, and either subtract from or add to the team's Scenario completion.

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