

1106-N1-1854      **Teena Carroll\***, PO B0x 947, Emory, VA 24327. *Using Games as a Invitation for Inquiry.*

Students are most invested in answering questions that they pose themselves; However, posing questions is a skill that does not come naturally to most students and is not universally encouraged in classrooms. In order to get students to pursue deep questions, you need to both provide a setting which sparks curiosity and an environment which values pursuit of the answers.

In this talk I will outline how I used the board game Ticket to Ride to inspire the direction of a discrete structures class. At the beginning of the semester students learned how to play the game (which takes places on a board which is an edge-colored graph representing potential train connections between cities in the United States.). As a class, they made a list of questions about the game. During the rest of the semester, we learned the mathematics we needed to answer these questions using a set of IBL notes. We selected topics according to their usefulness towards the initial list of questions. Our list inspired the investigation of spanning trees, Steiner trees and shortest path algorithms. The class found an innovative strategy for winning the game. (Received September 15, 2014)